2000 Annual	Geologic not mobile	Geologic not mobile not windblown	Reg VIII Geologic EIC3 620, 630, 640, 645, 650	PM2.5 Mobile On-Road	ROG Mobile Exhaust	Tire and Brake Wear	Organic Carbon Directly Emitted PM2.5	Organic Carbon Secondary from ROG (not mobile)	Sum of Burning	Burning - RWC EIC3 610	Burning - Ag Burn EIC3 670	Burning - fires EIC3 660	Ammonimum Nitrate NOx Total	Sulfate SOx Total
Check EI Group	E17	E18	E19	E20	E13	E07	E21	E11	E28	E22	E23	E25	E01	E04
Fresno	10.6487	7.6356	10.0701	2.2265	44.3880	0.1634	4.3049	50.6949	11.9976	2.7286	9.2118	0.0572	127.8697	9.5686
Kern	5.7833	4.6830	5.1965	3.9878	34.0221	0.1628	6.7799	63.1161	3.3558	1.7920	1.5479	0.0159	173.6989	12.0179
Kings	3.6208	2.2693	3.4400	0.7805	9.1567	0.0330	1.7298	9.2665	0.8338	0.2625	0.5651	0.0062	30.0118	1.2638
Madera	2.2315	1.8536	2.0668	0.5105	10.1166	0.0317	1.0879	9.4535	3.2428	0.9609	2.2738	0.0081	33.2917	1.0278
Merced	4.5004	3.1466	4.3300	1.6283	14.9839	0.0689	1.6258	18.1515	1.8949	0.7330	1.1517	0.0102	54.5830	1.2467
San Joaquin	4.0495	3.7208	3.6844	1.4372	37.8478	0.1256	3.5780	22.7805	2.8538	1.7978	1.0502	0.0058	107.4703	4.7741
Stanislaus	4.5213	3.9656	4.3576	0.9414	24.6090	0.0879	2.2186	26.7529	2.5782	1.5388	1.0218	0.0176	55.0337	2.4277
Tulare	5.3263	4.7399	4.9146	0.7598	23.1060	0.0729	1.9560	27.1576	4.2062	1.1576	3.0221	0.0265	53.3895	2.5292
SJV Total	40.6818	32.0144	38.0600	12.2720	198.2301	0.7462	23.2808	227.3736	30.9631	10.9712	19.8444	0.1475	635.3488	34.8558
Fresno + Madera	12.8802	9.4892	12.1369	2.7370	54.5046	0.1951	5.3928	60.1484	15.2404	3.6895	11.4856	0.0653	161.1615	10.5964
Stanislaus + Merced	9.0217	7.1122	8.6876	2.5697	39.5929	0.1568	3.8444	44.9045	4.4731	2.2718	2.1735	0.0278	109.6168	3.6744
Tulare + Kings	8.9471	7.0092	8.3546	1.5403	32.2627	0.1059	3.6857	36.4242	5.0400	1.4201	3.5872	0.0327	83.4013	3.7930

Zone EI Calculations

Highlight = used in rolback cell

Area	PM2.5 not Mobile	PM2.5 not mobile minus Windblown	PM2.5 Geologic	PM2.5 Mobile	TOG Mobile Total	Tire and Brake Wear (using NOx distr)	PM2.5 Organic Carbon (Stationary sources)	TOG not mobile	Sum of Burning	PM2.5 RWC SIC 610	PM2.5 Ag burn SIC 670	PM2.5- fires SIC 660 (annual and 10/21/99)	NOx Total	SOx Total
Calculation	G	H		J	=F+L								Sum of A+B	Sum of C+D
1-St	1.51	1.33	1.15	0.63	14.49	0.06	0.93	4.96	1.15	0.99	0.15	0.01	32.58	1.86
2a-Me	3.44	2.40	3.25	1.42	12.85	0.06	1.19	15.79	1.59	0.64	0.95	0.01	46.59	1.09
2b-SJ	0.38	0.34	0.35	0.06	1.74	0.01	0.35	5.14	0.22	0.10	0.13	0.00	5.53	0.17
2c-St	2.57	2.24	2.74	0.28	8.81	0.03	1.11	21.29	1.21	0.40	0.81	0.01	19.62	0.41
3-Fr	2.11	1.56	1.19	1.30	20.83	0.10	1.55	18.91	2.14	1.86	0.25	0.02	61.17	4.02
4a-Fr	2.32	1.63	2.21	0.27	5.64	0.02	0.63	15.99	2.88	0.58	2.29	0.01	20.06	1.82
4b-Ma	0.95	0.79	0.84	0.33	4.50	0.02	0.64	2.97	1.49	0.33	1.15	0.00	19.35	0.76
5a-Fr	0.51	0.36	0.50	0.04	0.94	0.00	0.12	5.32	0.54	0.08	0.46	0.00	7.06	1.97
5b-Tu	0.18	0.16	0.19	0.01	0.40	0.00	0.03	1.40	0.14	0.00	0.13	0.00	1.07	0.03
5c-Ki	1.07	0.64	0.96	0.43	4.18	0.02	0.17	7.30	0.33	0.18	0.15	0.00	16.17	0.79
6a-Tu	0.22	0.20	0.24	0.00	0.20	0.00	0.02	1.51	0.20	0.01	0.19	0.00	1.07	0.04
6b-Ki	1.25	0.81	1.24	0.11	0.84	0.00	0.80	0.94	0.24	0.02	0.22	0.00	4.68	0.18
7-Tu	2.37	2.11	2.02	0.52	13.23	0.05	1.12	15.52	1.95	0.69	1.25	0.01	31.74	1.57
8-Tu	1.63	1.45	1.60	0.19	5.72	0.02	0.39	8.31	1.50	0.24	1.25	0.01	14.90	0.55
9-Ke	0.75	0.60	0.83	0.06	0.86	0.00	0.42	3.67	0.32	0.01	0.31	0.00	4.80	0.65
10-Ke	1.10	0.83	1.14	0.35	5.50	0.02	0.41	6.34	0.59	0.20	0.39	0.00	16.97	0.72
11-Ke	0.70	0.59	0.53	0.14	0.98	0.01	1.85	18.15	0.21	0.07	0.14	0.00	17.66	6.54
12-Ke	2.28	1.88	1.71	3.29	24.98	0.14	3.04	30.83	1.92	1.47	0.44	0.01	124.35	3.51
13-Ke	0.95	0.79	0.98	0.15	1.71	0.00	1.05	4.13	0.31	0.04	0.26	0.00	9.93	0.60

Sums														
Sum 1,2	7.90	6.32	7.49	2.39	37.90	0.15	3.57	47.18	4.18	2.12	2.04	0.02	104.32	3.54
Sum 3,4	5.39	3.98	4.24	1.90	30.98	0.14	2.82	37.87	6.51	2.78	3.70	0.03	100.58	6.61
Sum 5,6,7,8	7.23	5.73	6.74	1.30	25.51	0.10	2.65	40.29	4.91	1.23	3.66	0.02	76.70	5.13
Sum 5	1.76	1.16	1.65	0.48	5.52	0.02	0.33	14.02	1.01	0.27	0.74	0.01	24.30	2.79
Sum 6	0.69	0.52	0.69	0.05	1.34	0.00	0.15	6.72	0.68	0.08	0.59	0.00	8.13	2.00
Sum 6,8	3.10	2.46	3.08	0.30	6.76	0.02	1.21	10.75	1.95	0.27	1.67	0.01	20.65	0.77
Sum 5,6,7,8,10	8.33	6.56	7.88	1.65	31.02	0.11	3.06	46.63	5.50	1.43	4.05	0.03	93.67	5.86
Sum 9,10,11,12	4.18	3.47	4.10	0.73	13.06	0.04	3.08	36.46	2.63	0.53	2.09	0.01	54.33	8.46
Sum 10,12,13	4.33	3.49	3.84	3.79	32.19	0.16	4.51	41.30	2.82	1.71	1.10	0.01	151.24	4.83

Unassigned PM2.5 Total	Unassigned PM2.5 Total w/o Wind	NOx Mobile On-Road	NOx not Mobile On Road	SOx Mobile On-Road	SOx not Mobile On Road	ROG * Total	ROG not Mobile On-Road	ROG Other Mobile	ROG Mobile On-Road	PM2.5 Mobile Exhaust	PM2.5 Area Mobile (sum)	PM2.5 windblown EIC3 650	PM2.5-other burning EIC3 690, 699
E14	E16	E02	E03	E05	E06	E08	E09	E10	E12	E27	E26	E15	E24
29.6446	26.6315	67.1942	60.6755	0.4393	9.1293	95.0829	65.9043	15.2094	29.1786	4.0723	1.8458	3.0131	0.6871
20.3369	19.2366	95.3809	78.3180	0.6612	11.3567	97.1382	72.5245	9.4084	24.6137	5.5142	1.5264	1.1003	0.4234
7.1009	5.7494	18.4557	11.5561	0.1259	1.1379	18.4232	13.3040	4.0375	5.1192	1.9280	1.1475	1.3515	0.0951
7.3934	7.0155	14.1373	19.1544	0.0874	0.9404	19.5701	13.7385	4.2850	5.8316	0.9135	0.4030	0.3779	0.0827
9.7748	8.4210	37.4704	17.1126	0.2469	0.9998	33.1354	21.9053	3.7538	11.2301	2.1887	0.5604	1.3538	0.1973
13.2576	12.9289	46.1545	61.3158	0.2953	4.4788	60.6282	38.5173	15.7368	22.1110	3.8269	2.3897	0.3287	0.4281
10.6684	10.1127	31.9876	23.0461	0.2080	2.2197	51.3619	34.0435	7.2906	17.3184	1.8928	0.9514	0.5557	0.3809
14.2285	13.6421	27.9789	25.4106	0.1687	2.3605	50.2636	34.7927	7.6351	15.4709	1.7671	1.0073	0.5864	0.2918
112.4050	103.7376	338.7595	296.5893	2.2327	32.6231	425.6037	294.7302	67.3566	130.8735	22.1035	9.8315	8.6674	2.5865
37.0380	33.6470	81.3315	79.8300	0.5267	10.0697	114.6530	79.6428	19.4944	35.0102	4.9858	2.2488	3.3910	0.7698
20.4432	18.5337	69.4580	40.1588	0.4549	3.2195	84.4974	55.9489	11.0444	28.5485	4.0815	1.5118	1.9095	0.5782
21.3293	19.3914	46.4346	36.9667	0.2946	3.4984	68.6869	48.0968	11.6726	20.5901	3.6951	2.1548	1.9379	0.3869

PM2.5 Total (annual only)	PM2.5 minus Windblown (episodes)	NOx Mobile	NOx not Mobile	SOx Mobile	SOx not Mobile	TOG * Total	TOG not Mobile On-Road	TOG Other Mobile	TOG Mobile On-Road	PM2.5 Mobile (plus area mobile)	Area Mobile (sum)	PM2.5 windblown	PM2.5-other burning (sum)
Sum of G+J	Sum of H+J	A	B	C	D	Sum of E+F	E	L	F	J+K	K		
2.14	1.96	21.41	11.18	0.14	1.72	17.78	6.44	3.15	11.34	1.04	0.41		0.32
4.86	3.82	32.06	14.52	0.21	0.88	28.80	19.04	3.09	9.76	1.88	0.46		0.19
0.44	0.41	2.00	3.53	0.01	0.16	9.17	8.21	0.78	0.96	0.18	0.12		0.01
2.85	2.52	9.51	10.11	0.06	0.35	32.35	26.93	3.40	5.42	0.72	0.44		0.06
3.41	2.86	41.82	19.35	0.26	3.77	39.77	24.57	5.63	15.20	1.98	0.68		0.57
2.59	1.90	8.75	11.32	0.05	1.77	23.76	20.33	2.22	3.43	0.54	0.27		0.06
1.28	1.12	8.99	10.36	0.06	0.71	7.82	4.19	0.87	3.63	0.41	0.08		0.05
0.55	0.40	1.40	5.66	0.01	1.96	7.27	6.69	0.36	0.57	0.09	0.04		0.02
0.19	0.17	0.37	0.70	0.00	0.03	2.06	1.75	0.09	0.31	0.02	0.01		0.00
1.50	1.06	10.72	5.45	0.07	0.72	13.16	9.98	0.99	3.19	0.71	0.28		0.08
0.22	0.20	0.10	0.97	0.00	0.04	1.96	1.89	0.13	0.07	0.02	0.02		0.00
1.36	0.92	2.40	2.28	0.02	0.16	1.95	1.30	0.18	0.66	0.16	0.05		0.00
2.89	2.63	19.05	12.69	0.12	1.46	30.03	19.67	2.88	10.35	0.90	0.38		0.22
1.82	1.64	6.93	7.98	0.04	0.51	14.38	10.58	1.93	3.80	0.44	0.25		0.06
0.80	0.66	0.96	3.85	0.01	0.64	4.76	4.09	0.18	0.67	0.09	0.03		0.00
1.45	1.18	8.79	8.18	0.06	0.67	10.75	7.85	2.61	2.89	0.77	0.42		0.04
0.84	0.73	3.09	14.57	0.02	6.52	20.74	20.02	0.25	0.72	0.18	0.04		0.03
5.57	5.17	79.68	44.66	0.55	2.96	54.89	35.90	5.98	18.99	4.26	0.97		0.34
1.11	0.94	2.86	7.07	0.03	0.57	6.00	4.67	0.38	1.33	0.21	0.06		0.01
10.29	8.71	64.97	39.34	0.43	3.11	88.10	60.62	10.42	27.48	3.82	1.43	0.00	0.58
7.29	5.88	59.56	41.03	0.37	6.24	71.35	49.09	8.73	22.25	2.93	1.04	0.00	0.67
8.53	7.03	40.98	35.72	0.25	4.88	70.81	51.86	6.57	18.95	2.34	1.04	0.00	0.39
2.24	1.64	12.50	11.80	0.08	2.71	22.49	18.42	1.45	4.07	0.82	0.34	0.00	0.10
0.75	0.57	1.77	6.36	0.01	1.99	9.33	8.45	0.46	0.88	0.11	0.06	0.00	0.02
3.40	2.76	9.43	11.23	0.06	0.71	18.29	13.77	2.24	4.53	0.62	0.32	0.00	0.06
9.98	8.20	49.77	43.90	0.31	5.54	81.56	59.71	9.17	21.84	3.11	1.46	0.00	0.43
4.91	4.20	19.76	34.57	0.13	8.33	50.63	42.54	4.97	8.09	1.48	0.75	0.00	0.13
8.13	7.29	91.34	59.90	0.63	4.20	71.64	48.42	8.97	23.22	5.25	1.46	0.00	0.39

2005 Annual Check EI Group	Geologic not mobile	Geologic not mobile not windblown	Reg VIII Geologic EIC3 620, 630, 640, 645, 650	PM2.5 Mobile On-Road	ROG Mobile Exhaust	Tire and Brake Wear	Organic Carbon Directly Emitted PM2.5	Organic Carbon Secondary from ROG (not mobile)	Sum of Burning	Burning - RWC EIC3 610	Burning - Ag Burn EIC3 670	Burning - fires EIC3 660	Ammonimum Nitrate NOx Total	Sulfate SOx Total	Unassigned PM2.5 Total
	E17	E18	E19	E20	E13	E07	E21	E11	E28	E22	E23	E25	E01	E04	E14
Fresno	9.3885	6.9111	8.8712	2.0436	35.0209	0.1970	4.1105	48.9461	9.0202	2.6311	6.3270	0.0621	113.5029	9.8720	25.1305
Kern	5.2522	4.3136	4.6789	3.5699	27.4206	0.2041	5.6183	54.2278	2.4804	1.7270	0.7357	0.0177	156.0994	5.6217	17.2389
Kings	3.0734	1.9789	2.8825	0.6985	8.7377	0.0407	1.9737	9.7307	0.5021	0.2497	0.2456	0.0068	29.4628	0.8883	6.2949
Madera	1.9806	1.6586	1.8260	0.4792	8.4943	0.0400	1.2079	11.9464	2.1370	0.8986	1.2294	0.0090	32.4806	1.0244	6.0273
Merced	3.8508	2.7178	3.7154	1.4757	11.6787	0.0858	1.5794	18.0624	1.1642	0.6762	0.4767	0.0113	54.0043	1.2005	8.1797
San Joaquin	3.3841	3.1165	3.2064	1.3617	29.1050	0.1605	3.0751	21.3872	2.1242	1.7133	0.4045	0.0064	96.5952	5.1315	11.4119
Stanislaus	3.9851	3.5294	3.7929	0.8917	18.5532	0.1098	2.2038	25.8944	2.0337	1.5015	0.5128	0.0194	51.0496	1.4646	9.3426
Tulare	4.9674	4.4742	4.6121	0.7159	18.5632	0.0883	1.8534	27.1884	3.3480	1.0826	2.2364	0.0290	47.8063	1.1686	12.8033
SJV Total	35.8821	28.7001	33.5854	11.2362	157.5736	0.9262	21.6221	217.3834	22.8098	10.4800	12.1681	0.1617	581.0011	26.3716	96.4291
Fresno + Madera	11.3691	8.5697	10.6972	2.5228	43.5152	0.2370	5.3183	60.8926	11.1572	3.5297	7.5564	0.0711	145.9835	10.8964	31.1578
Stanislaus + Merced	7.8359	6.2472	7.5083	2.3674	30.2319	0.1956	3.7833	43.9568	3.1979	2.1777	0.9895	0.0307	105.0540	2.6651	17.5224
Tulare + Kings	8.0408	6.4531	7.4946	1.4144	27.3009	0.1290	3.8270	36.9191	3.8501	1.3323	2.4820	0.0358	77.2691	2.0568	19.0981

Zone EI Calculations

Highlight = used in rollback cell

Area Calculation	PM2.5 not Mobile G	PM2.5 not mobile minus Windblown H	PM2.5 Geologic	PM2.5 Mobile J	TOG Mobile Total =F+L	Tire and Brake Wear (using NOx distr)	PM2.5 Organic Carbon (Stationary sources)	TOG not mobile	Sum of Burning	PM2.5 RWC SIC 610	PM2.5 Ag burn SIC 670	PM2.5- fires SIC 660 (annual and 10/21/99)	NOx Total Sum of A+B	SOx Total Sum of C+D	PM2.5 Total (annual only) Sum of G+J
1-St	1.33	1.18	1.00	0.60	10.70	0.07	0.92	4.81	1.05	0.96	0.08	0.01	30.40	1.11	1.93
2a-Me	2.95	2.08	2.79	1.28	10.00	0.07	1.16	15.71	0.99	0.59	0.39	0.01	46.11	1.05	4.23
2b-SJ	0.32	0.29	0.30	0.06	1.35	0.01	0.30	4.82	0.14	0.09	0.05	0.00	4.94	0.19	0.37
2c-St	2.27	2.00	2.38	0.27	6.80	0.03	1.10	20.61	0.80	0.39	0.41	0.01	18.06	0.26	2.53
3-Fr	1.86	1.41	1.05	1.19	16.05	0.12	1.48	18.25	1.99	1.79	0.17	0.02	55.65	4.16	3.05
4a-Fr	2.05	1.47	1.94	0.25	4.53	0.03	0.60	15.44	2.14	0.56	1.57	0.01	17.56	1.88	2.30
4b-Ma	0.85	0.71	0.74	0.31	3.55	0.03	0.71	3.76	0.94	0.31	0.62	0.00	18.91	0.76	1.16
5a-Fr	0.45	0.32	0.44	0.04	0.75	0.00	0.12	5.13	0.39	0.08	0.31	0.00	5.95	2.02	0.49
5b-Tu	0.17	0.15	0.18	0.01	0.31	0.00	0.03	1.40	0.10	0.00	0.10	0.00	0.94	0.01	0.18
5c-Ki	0.91	0.56	0.80	0.38	3.71	0.02	0.20	7.67	0.24	0.17	0.06	0.00	16.08	0.55	1.29
6a-Tu	0.21	0.19	0.22	0.00	0.18	0.00	0.02	1.51	0.15	0.01	0.14	0.00	0.92	0.02	0.21
6b-Ki	1.06	0.71	1.04	0.10	0.74	0.01	0.91	0.99	0.12	0.02	0.10	0.00	4.47	0.13	1.16
7-Tu	2.21	1.99	1.90	0.49	10.21	0.06	1.06	15.54	1.58	0.64	0.93	0.01	28.60	0.73	2.70
8-Tu	1.52	1.37	1.50	0.18	4.61	0.02	0.37	8.32	1.16	0.23	0.92	0.01	13.28	0.26	1.70
9-Ke	0.68	0.55	0.75	0.05	0.68	0.00	0.35	3.15	0.16	0.01	0.15	0.00	3.72	0.28	0.73
10-Ke	1.00	0.76	1.03	0.31	4.57	0.02	0.34	5.45	0.38	0.19	0.19	0.00	15.06	0.35	1.31
11-Ke	0.64	0.54	0.48	0.12	0.78	0.01	1.53	15.59	0.14	0.07	0.07	0.00	13.51	2.81	0.76
12-Ke	2.07	1.73	1.54	2.95	20.01	0.17	2.52	26.49	1.64	1.41	0.21	0.01	115.82	1.91	5.02
13-Ke	0.87	0.72	0.88	0.14	1.37	0.01	0.87	3.55	0.17	0.04	0.12	0.00	8.00	0.27	1.00
Sums															
Sum 1,2	6.86	5.54	6.48	2.21	28.85	0.19	3.48	45.95	2.98	2.03	0.93	0.03	99.51	2.61	9.06
Sum 3,4	4.76	3.60	3.74	1.75	24.12	0.17	2.79	37.45	5.07	2.67	2.37	0.04	92.11	6.80	6.51
Sum 5,6,7,8	6.52	5.29	6.08	1.20	20.52	0.12	2.70	40.55	3.75	1.15	2.57	0.03	70.25	3.72	7.72
Sum 5	1.53	1.03	1.42	0.43	4.78	0.03	0.34	14.21	0.74	0.25	0.48	0.01	22.97	2.59	1.96
Sum 6	0.62	0.48	0.62	0.05	1.06	0.01	0.15	6.54	0.50	0.08	0.41	0.00	6.89	2.04	0.67
Sum 6,8	2.79	2.27	2.76	0.28	5.53	0.03	1.30	10.81	1.43	0.26	1.16	0.01	18.68	0.40	3.06
Sum 5,6,7,8,10	7.52	6.05	7.11	1.51	25.09	0.14	3.04	46.00	4.13	1.34	2.75	0.03	85.30	4.08	9.03
Sum 9,10,11,12	3.84	3.23	3.75	0.66	10.65	0.05	2.60	32.51	1.84	0.50	1.32	0.01	45.56	3.70	4.50
Sum 10,12,13	3.94	3.22	3.45	3.40	25.95	0.20	3.73	35.49	2.19	1.65	0.52	0.02	138.88	2.53	7.33

2005 Annual	Unassigned PM2.5 Total w/o Wind	NOx Mobile On-Road	NOx not Mobile On Road	SOx Mobile On-Road	SOx not Mobile On Road	ROG * Total	ROG not Mobile On-Road	ROG Other Mobile	ROG Mobile On-Road	PM2.5 Mobile Exhaust	PM2.5 Area Mobile (sum)	PM2.5 windblown EIC3 650	PM2.5-other burning EIC3 690, 699
Check EI Group	E16	E02	E03	E05	E06	E08	E09	E10	E12	E27	E26	E15	E24
Fresno	22.6531	64.0863	49.4166	0.4889	9.3831	83.9670	63.5326	14.5865	20.4344	3.7084	1.6648	2.4774	0.7139
Kern	16.3003	101.0858	55.0136	0.7795	4.8422	81.6484	62.6700	8.4422	18.9784	4.9334	1.3635	0.9386	0.4388
Kings	5.2004	19.9931	9.4697	0.1486	0.7397	18.4684	14.3068	4.5761	4.1616	2.0541	1.3556	1.0945	0.0961
Madera	5.7053	14.0778	18.4028	0.1020	0.9224	20.4407	16.1008	4.1544	4.3399	0.8477	0.3685	0.3220	0.0871
Merced	7.0467	39.1418	14.8625	0.2901	0.9104	29.7411	21.3257	3.2633	8.4154	1.9732	0.4975	1.1330	0.2070
San Joaquin	11.1443	43.6780	52.9172	0.3351	4.7964	50.4922	35.0344	13.6472	15.4578	3.4243	2.0626	0.2676	0.4402
Stanislaus	8.8869	30.6200	20.4296	0.2389	1.2257	44.4476	32.4042	6.5098	12.0434	1.7543	0.8626	0.4557	0.3963
Tulare	12.3101	26.0113	21.7950	0.1888	0.9798	45.7516	34.7600	7.5716	10.9916	1.6250	0.9091	0.4932	0.2988
SJV Total	89.2471	338.6941	242.3070	2.5719	23.7997	374.9570	280.1345	62.7511	94.8225	20.3204	9.0842	7.1820	2.6783
Fresno + Madera	28.3584	78.1641	67.8194	0.5909	10.3055	104.4078	79.6335	18.7409	24.7743	4.5561	2.0333	2.7994	0.8010
Stanislaus + Merced	15.9337	69.7618	35.2922	0.5290	2.1361	74.1887	53.7299	9.7731	20.4588	3.7275	1.3601	1.5887	0.6033
Tulare + Kings	17.5104	46.0044	31.2647	0.3374	1.7194	64.2200	49.0668	12.1477	15.1532	3.6791	2.2647	1.5877	0.3950

Zone EI Calculations

Area	PM2.5 minus Windblown (episodes)	NOx Mobile	NOx not Mobile	SOx Mobile	SOx not Mobile	TOG * Total	TOG not Mobile On-Road	TOG Other Mobile	TOG Mobile On-Road	PM2.5 Mobile (plus area mobile)	Area Mobile (sum)	PM2.5 windblown	PM2.5-other burning (sum)
Calculation	Sum of H+J	A	B	C	D	Sum of E+F	E	L	F	J+K	K		
1-St	1.78	20.49	9.91	0.16	0.95	14.01	6.13	2.81	7.89	0.97	0.37		0.33
2a-Me	3.36	33.49	12.61	0.25	0.80	25.85	18.54	2.69	7.31	1.69	0.41		0.20
2b-SJ	0.35	1.89	3.05	0.01	0.17	8.14	7.47	0.67	0.67	0.16	0.10		0.01
2c-St	2.26	9.10	8.96	0.07	0.19	29.40	25.64	3.03	3.77	0.67	0.40		0.07
3-Fr	2.61	39.89	15.76	0.29	3.87	34.33	23.69	5.40	10.65	1.81	0.62		0.59
4a-Fr	1.72	8.34	9.22	0.06	1.82	22.00	19.60	2.13	2.40	0.49	0.24		0.06
4b-Ma	1.02	8.95	9.96	0.07	0.69	7.61	4.91	0.85	2.70	0.38	0.08		0.05
5a-Fr	0.36	1.34	4.61	0.01	2.01	6.85	6.45	0.35	0.40	0.08	0.04		0.02
5b-Tu	0.16	0.34	0.60	0.00	0.01	1.97	1.75	0.09	0.22	0.02	0.01		0.00
5c-Ki	0.94	11.62	4.46	0.08	0.47	13.32	10.73	1.12	2.59	0.71	0.33		0.08
6a-Tu	0.19	0.09	0.83	0.00	0.02	1.94	1.89	0.13	0.05	0.02	0.02		0.00
6b-Ki	0.80	2.61	1.87	0.02	0.11	1.93	1.39	0.21	0.53	0.16	0.06		0.00
7-Tu	2.48	17.71	10.89	0.13	0.61	27.01	19.65	2.85	7.36	0.83	0.34		0.23
8-Tu	1.55	6.44	6.84	0.05	0.21	13.27	10.57	1.91	2.70	0.40	0.23		0.06
9-Ke	0.61	1.02	2.70	0.01	0.27	4.05	3.53	0.16	0.52	0.08	0.03		0.00
10-Ke	1.08	9.31	5.74	0.07	0.28	9.02	6.79	2.34	2.23	0.69	0.38		0.04
11-Ke	0.67	3.27	10.23	0.03	2.78	17.85	17.30	0.23	0.56	0.16	0.04		0.03
12-Ke	4.68	84.45	31.37	0.64	1.26	45.66	31.02	5.37	14.64	3.81	0.87		0.35
13-Ke	0.86	3.03	4.96	0.03	0.24	5.06	4.04	0.34	1.02	0.19	0.06		0.01

Sums

Sum 1,2	7.75	64.98	34.53	0.50	2.11	77.41	57.77	9.21	19.64	3.49	1.29	0.00	0.61
Sum 3,4	5.35	57.18	34.93	0.41	6.38	63.94	48.20	8.38	15.74	2.69	0.93	0.00	0.70
Sum 5,6,7,8	6.49	40.15	30.10	0.29	3.43	66.29	52.44	6.67	13.85	2.23	1.03	0.00	0.40
Sum 5	1.46	13.30	9.67	0.09	2.50	22.14	18.93	1.56	3.21	0.82	0.38	0.00	0.10
Sum 6	0.53	1.68	5.21	0.01	2.02	8.82	8.20	0.44	0.62	0.10	0.05	0.00	0.02
Sum 6,8	2.54	9.13	9.54	0.07	0.33	17.13	13.85	2.25	3.28	0.58	0.31	0.00	0.06
Sum 5,6,7,8,10	7.56	49.46	35.84	0.36	3.72	75.31	59.22	9.01	16.08	2.92	1.41	0.00	0.44
Sum 9,10,11,12	3.90	20.04	25.52	0.15	3.55	44.20	38.19	4.64	6.01	1.33	0.67	0.00	0.14
Sum 10,12,13	6.61	96.80	42.08	0.74	1.79	59.74	41.84	8.05	17.90	4.70	1.30	0.00	0.41

2005 Annual with Adjustments	Geologic not mobile	Geologic not mobile not windblown	Reg VIII Geologic EIC3 620, 630, 640, 645, 650	PM2.5 Mobile On-Road	ROG Mobile Exhaust	Tire and Brake Wear	Organic Carbon Directly Emitted PM2.5	Organic Carbon Secondary from ROG (not mobile)	Sum of Burning	Burning - RWC EIC3 610	Burning - Ag Burn EIC3 670	Burning - fires EIC3 660	Ammonimum Nitrate NOx Total	Sulfate SOx Total	Unassigned PM2.5 Total
Check EI Group	E17	E18	E19	E20	E13	E07	E21	E11	E28	E22	E23	E25	E01	E04	E14
Fresno	9.3885	6.9111	8.8712	2.0381	35.0209	0.1970	4.0991	59.0468	9.0202	2.5784	6.3270	0.0621	112.4128	9.8720	25.0523
Kern	5.2522	4.3136	4.6789	3.5604	27.4206	0.2041	5.6027	65.4184	2.4804	1.6924	0.7357	0.0177	154.6002	5.6217	17.1853
Kings	3.0734	1.9789	2.8825	0.6966	8.7377	0.0407	1.9682	11.7387	0.5021	0.2447	0.2456	0.0068	29.1798	0.8883	6.2753
Madera	1.9806	1.6586	1.8260	0.4779	8.4943	0.0400	1.2045	14.4117	2.1370	0.8806	1.2294	0.0090	32.1686	1.0244	6.0086
Merced	3.8508	2.7178	3.7154	1.4718	11.6787	0.0858	1.5751	21.7898	1.1642	0.6627	0.4767	0.0113	53.4857	1.2005	8.1543
San Joaquin	3.3841	3.1165	3.2064	1.3581	29.1050	0.1605	3.0666	25.8007	2.1242	1.6790	0.4045	0.0064	95.6674	5.1315	11.3764
Stanislaus	3.9851	3.5294	3.7929	0.8893	18.5532	0.1098	2.1977	31.2381	2.0337	1.4714	0.5128	0.0194	50.5593	1.4646	9.3136
Tulare	4.9674	4.4742	4.6121	0.7140	18.5632	0.0883	1.8482	32.7991	3.3480	1.0609	2.2364	0.0290	47.3472	1.1686	12.7634
SJV Total	35.8821	28.7001	33.5854	11.2062	157.5736	0.9262	21.5621	262.2434	22.8098	10.2700	12.1681	0.1617	575.4211	26.3716	96.1291
Fresno + Madera	11.3691	8.5697	10.6972	2.5161	43.5152	0.2370	5.3036	73.4586	11.1572	3.4590	7.5564	0.0711	144.5814	10.8964	31.0609
Stanislaus + Merced	7.8359	6.2472	7.5083	2.3611	30.2319	0.1956	3.7728	53.0279	3.1979	2.1341	0.9895	0.0307	104.0450	2.6651	17.4678
Tulare + Kings	8.0408	6.4531	7.4946	1.4106	27.3009	0.1290	3.8164	44.5378	3.8501	1.3056	2.4820	0.0358	76.5270	2.0568	19.0387

Zone EI Calculations

Highlight = used in rollback cell

Area Calculation	PM2.5 not Mobile G	PM2.5 not mobile minus Windblown H	PM2.5 Geologic	PM2.5 Mobile J	TOG Mobile Total =F+L	Tire and Brake Wear (using NOx distr)	PM2.5 Organic Carbon (Stationary sources)	TOG not mobile	Sum of Burning	PM2.5 RWC SIC 610	PM2.5 Ag burn SIC 670	PM2.5- fires SIC 660 (annual and 10/21/99)	NOx Total Sum of A+B	SOx Total Sum of C+D	PM2.5 Total (annual only) Sum of G+J
1-St	1.33	1.18	1.00	0.60	10.70	0.07	0.92	5.80	1.03	0.94	0.08	0.01	30.40	1.11	1.92
2a-Me	2.95	2.08	2.79	1.28	10.00	0.07	1.15	18.96	0.98	0.58	0.39	0.01	46.11	1.05	4.23
2b-SJ	0.32	0.29	0.30	0.06	1.35	0.01	0.30	5.82	0.14	0.09	0.05	0.00	4.94	0.19	0.37
2c-St	2.27	2.00	2.38	0.27	6.80	0.03	1.10	24.86	0.79	0.38	0.41	0.01	18.06	0.26	2.53
3-Fr	1.86	1.41	1.05	1.19	16.05	0.12	1.48	22.02	1.96	1.76	0.17	0.02	55.65	4.16	3.05
4a-Fr	2.05	1.47	1.94	0.25	4.53	0.03	0.60	18.63	2.13	0.55	1.57	0.01	17.56	1.88	2.30
4b-Ma	0.85	0.71	0.74	0.31	3.55	0.03	0.71	4.53	0.93	0.31	0.62	0.00	18.91	0.76	1.16
5a-Fr	0.45	0.32	0.44	0.04	0.75	0.00	0.12	6.19	0.39	0.07	0.31	0.00	5.95	2.02	0.49
5b-Tu	0.17	0.15	0.18	0.01	0.31	0.00	0.03	1.69	0.10	0.00	0.10	0.00	0.94	0.01	0.18
5c-Ki	0.91	0.56	0.80	0.38	3.71	0.02	0.20	9.25	0.24	0.17	0.06	0.00	16.08	0.55	1.29
6a-Tu	0.21	0.19	0.22	0.00	0.18	0.00	0.02	1.82	0.15	0.01	0.14	0.00	0.92	0.02	0.21
6b-Ki	1.06	0.71	1.04	0.10	0.74	0.01	0.91	1.19	0.12	0.02	0.10	0.00	4.47	0.13	1.16
7-Tu	2.21	1.99	1.90	0.49	10.21	0.06	1.06	18.74	1.57	0.63	0.93	0.01	28.60	0.73	2.70
8-Tu	1.52	1.37	1.50	0.17	4.61	0.02	0.37	10.03	1.16	0.22	0.92	0.01	13.28	0.26	1.70
9-Ke	0.68	0.55	0.75	0.05	0.68	0.00	0.35	3.80	0.16	0.01	0.15	0.00	3.72	0.28	0.73
10-Ke	1.00	0.76	1.03	0.31	4.57	0.02	0.34	6.57	0.38	0.19	0.19	0.00	15.06	0.35	1.31
11-Ke	0.64	0.54	0.48	0.12	0.78	0.01	1.53	18.81	0.14	0.07	0.07	0.00	13.51	2.81	0.76
12-Ke	2.07	1.73	1.54	2.94	20.01	0.17	2.51	31.95	1.61	1.39	0.21	0.01	115.82	1.91	5.01
13-Ke	0.87	0.72	0.88	0.14	1.37	0.01	0.87	4.28	0.17	0.04	0.12	0.00	8.00	0.27	1.00

Sums															
Sum 1,2	6.86	5.54	6.48	2.20	28.85	0.19	3.47	55.43	2.94	1.99	0.93	0.03	99.51	2.61	9.06
Sum 3,4	4.76	3.60	3.74	1.75	24.12	0.17	2.78	45.18	5.02	2.61	2.37	0.04	92.11	6.80	6.50
Sum 5,6,7,8	6.52	5.29	6.08	1.19	20.52	0.12	2.69	48.92	3.72	1.13	2.57	0.03	70.25	3.72	7.71
Sum 5	1.53	1.03	1.42	0.43	4.78	0.03	0.34	17.14	0.73	0.25	0.48	0.01	22.97	2.59	1.96
Sum 6	0.62	0.48	0.62	0.05	1.06	0.01	0.15	7.89	0.50	0.08	0.41	0.00	6.89	2.04	0.67
Sum 6,8	2.79	2.27	2.76	0.27	5.53	0.03	1.29	13.04	1.42	0.25	1.16	0.01	18.68	0.40	3.06
Sum 5,6,7,8,10	7.52	6.05	7.11	1.51	25.09	0.14	3.03	55.49	4.10	1.32	2.75	0.03	85.30	4.08	9.03
Sum 9,10,11,12	3.84	3.23	3.75	0.66	10.65	0.05	2.59	39.21	1.83	0.49	1.32	0.01	45.56	3.70	4.50
Sum 10,12,13	3.94	3.22	3.45	3.39	25.95	0.20	3.72	42.81	2.15	1.61	0.52	0.02	138.88	2.53	7.32

2005 Annual with Adjustments	Unassigned PM2.5 Total w/o Wind	NOx Mobile On-Road	NOx not Mobile On Road	SOx Mobile On-Road	SOx not Mobile On Road	ROG * Total	ROG not Mobile On-Road	ROG Other Mobile	ROG Mobile On-Road	PM2.5 Mobile Exhaust	PM2.5 Area Mobile (sum)	PM2.5 windblown EIC3 650	PM2.5-other burning EIC3 690, 699
Check EI Group	E16	E02	E03	E05	E06	E08	E09	E10	E12	E27	E26	E15	E24
Fresno	22.5769	64.0863	49.4166	0.4889	9.3831	83.9670	63.5326	14.5865	20.4344	3.7084	1.6648	2.4774	0.7139
Kern	16.2456	101.0858	55.0136	0.7795	4.8422	81.6484	62.6700	8.4422	18.9784	4.9334	1.3635	0.9386	0.4388
Kings	5.1829	19.9931	9.4697	0.1486	0.7397	18.4684	14.3068	4.5761	4.1616	2.0541	1.3556	1.0945	0.0961
Madera	5.6861	14.0778	18.4028	0.1020	0.9224	20.4407	16.1008	4.1544	4.3399	0.8477	0.3685	0.3220	0.0871
Merced	7.0230	39.1418	14.8625	0.2901	0.9104	29.7411	21.3257	3.2633	8.4154	1.9732	0.4975	1.1330	0.2070
San Joaquin	11.1068	43.6780	52.9172	0.3351	4.7964	50.4922	35.0344	13.6472	15.4578	3.4243	2.0626	0.2676	0.4402
Stanislaus	8.8571	30.6200	20.4296	0.2389	1.2257	44.4476	32.4042	6.5098	12.0434	1.7543	0.8626	0.4557	0.3963
Tulare	12.2687	26.0113	21.7950	0.1888	0.9798	45.7516	34.7600	7.5716	10.9916	1.6250	0.9091	0.4932	0.2988
SJV Total	88.9471	338.6941	242.3070	2.5719	23.7997	374.9570	280.1345	62.7511	94.8225	20.3204	9.0842	7.1820	2.6783
Fresno + Madera	28.2631	78.1641	67.8194	0.5909	10.3055	104.4078	79.6335	18.7409	24.7743	4.5561	2.0333	2.7994	0.8010
Stanislaus + Merced	15.8801	69.7618	35.2922	0.5290	2.1361	74.1887	53.7299	9.7731	20.4588	3.7275	1.3601	1.5887	0.6033
Tulare + Kings	17.4516	46.0044	31.2647	0.3374	1.7194	64.2200	49.0668	12.1477	15.1532	3.6791	2.2647	1.5877	0.3950

Zone EI Calculations

Area Calculation	PM2.5 minus Windblown (episodes) Sum of H+J	NOx Mobile A	NOx not Mobile B	SOx Mobile C	SOx not Mobile D	TOG * Total Sum of E+F	TOG not Mobile On-Road E	TOG Other Mobile L	TOG Mobile On-Road F	PM2.5 Mobile (plus area mobile) J+K	Area Mobile (sum) K	PM2.5 windblown	PM2.5-other burning (sum)
1-St	1.78	**20.49**	**9.91**	**0.16**	**0.95**	14.01	**6.13**	**2.81**	**7.89**	0.97	**0.37**		**0.33**
2a-Me	3.36	**33.49**	**12.61**	**0.25**	**0.80**	25.85	**18.54**	**2.69**	**7.31**	1.69	**0.41**		**0.20**
2b-SJ	0.35	**1.89**	**3.05**	**0.01**	**0.17**	8.14	**7.47**	**0.67**	**0.67**	0.16	**0.10**		**0.01**
2c-St	2.26	**9.10**	**8.96**	**0.07**	**0.19**	29.40	**25.64**	**3.03**	**3.77**	0.67	**0.40**		**0.07**
3-Fr	2.60	**39.89**	**15.76**	**0.29**	**3.87**	34.33	**23.69**	**5.40**	**10.65**	1.81	**0.62**		**0.59**
4a-Fr	1.72	**8.34**	**9.22**	**0.06**	**1.82**	22.00	**19.60**	**2.13**	**2.40**	0.49	**0.24**		**0.06**
4b-Ma	1.02	**8.95**	**9.96**	**0.07**	**0.69**	7.61	**4.91**	**0.85**	**2.70**	0.38	**0.08**		**0.05**
5a-Fr	0.36	**1.34**	**4.61**	**0.01**	**2.01**	6.85	**6.45**	**0.35**	**0.40**	0.08	**0.04**		**0.02**
5b-Tu	0.16	**0.34**	**0.60**	**0.00**	**0.01**	1.97	**1.75**	**0.09**	**0.22**	0.02	**0.01**		**0.00**
5c-Ki	0.94	**11.62**	**4.46**	**0.08**	**0.47**	13.32	**10.73**	**1.12**	**2.59**	0.71	**0.33**		**0.08**
6a-Tu	0.19	**0.09**	**0.83**	**0.00**	**0.02**	1.94	**1.89**	**0.13**	**0.05**	0.02	**0.02**		**0.00**
6b-Ki	0.80	**2.61**	**1.87**	**0.02**	**0.11**	1.93	**1.39**	**0.21**	**0.53**	0.16	**0.06**		**0.00**
7-Tu	2.48	**17.71**	**10.89**	**0.13**	**0.61**	27.01	**19.65**	**2.85**	**7.36**	0.83	**0.34**		**0.23**
8-Tu	1.55	**6.44**	**6.84**	**0.05**	**0.21**	13.27	**10.57**	**1.91**	**2.70**	0.40	**0.23**		**0.06**
9-Ke	0.60	**1.02**	**2.70**	**0.01**	**0.27**	4.05	**3.53**	**0.16**	**0.52**	0.08	**0.03**		**0.00**
10-Ke	1.08	**9.31**	**5.74**	**0.07**	**0.28**	9.02	**6.79**	**2.34**	**2.23**	0.69	**0.38**		**0.04**
11-Ke	0.67	**3.27**	**10.23**	**0.03**	**2.78**	17.85	**17.30**	**0.23**	**0.56**	0.16	**0.04**		**0.03**
12-Ke	4.67	**84.45**	**31.37**	**0.64**	**1.26**	45.66	**31.02**	**5.37**	**14.64**	3.81	**0.87**		**0.35**
13-Ke	0.86	**3.03**	**4.96**	**0.03**	**0.24**	5.06	**4.04**	**0.34**	**1.02**	0.19	**0.06**		**0.01**

Sums

Sum 1,2	**7.74**	**64.98**	**34.53**	**0.50**	**2.11**	**77.41**	**57.77**	**9.21**	**19.64**	**3.49**	**1.29**	**0.00**	**0.61**
Sum 3,4	**5.34**	**57.18**	**34.93**	**0.41**	**6.38**	**63.94**	**48.20**	**8.38**	**15.74**	**2.68**	**0.93**	**0.00**	**0.70**
Sum 5,6,7,8	**6.48**	**40.15**	**30.10**	**0.29**	**3.43**	**66.29**	**52.44**	**6.67**	**13.85**	**2.23**	**1.03**	**0.00**	**0.40**
Sum 5	**1.46**	**13.30**	**9.67**	**0.09**	**2.50**	**22.14**	**18.93**	**1.56**	**3.21**	**0.81**	**0.38**	**0.00**	**0.10**
Sum 6	**0.53**	**1.68**	**5.21**	**0.01**	**2.02**	**8.82**	**8.20**	**0.44**	**0.62**	**0.10**	**0.05**	**0.00**	**0.02**
Sum 6,8	**2.54**	**9.13**	**9.54**	**0.07**	**0.33**	**17.13**	**13.85**	**2.25**	**3.28**	**0.58**	**0.31**	**0.00**	**0.06**
Sum 5,6,7,8,10	**7.56**	**49.46**	**35.84**	**0.36**	**3.72**	**75.31**	**59.22**	**9.01**	**16.08**	**2.92**	**1.41**	**0.00**	**0.44**
Sum 9,10,11,12	**3.89**	**20.04**	**25.52**	**0.15**	**3.55**	**44.20**	**38.19**	**4.64**	**6.01**	**1.33**	**0.67**	**0.00**	**0.14**
Sum 10,12,13	**6.60**	**96.80**	**42.08**	**0.74**	**1.79**	**59.74**	**41.84**	**8.05**	**17.90**	**4.69**	**1.30**	**0.00**	**0.41**

Adjustments to 2005 Annual Baseline EI

		ROG	NOx	SOx	PM2.5	Geologic not mobile	Geologic not mobile not windblown	Reg VIII Geologic EIC3 620, 630, 640, 645, 650	PM2.5 Mobile On-Road	ROG Mobile Exhaust	Tire and Brake Wear	Organic Carbon Directly Emitted PM2.5
HHDD Trucks	Trucks	0.00	0.00	0.00	0.00				0.00	0.00		
Reflash	Trucks	0.00	**-8.75**	0.00	0.00				0.00	0.00		
Public Fleet	On-Road	0.00	0.00	0.00	0.00				0.00	0.00		
Idling	On-Road	0.00	**-1.57**	0.00	**-0.03**				**-0.03**	0.00		
AB 1493	Mobile	0.00	0.00	0.00	0.00				0.00	0.00		
Moyer	Off-Road Equipment	0.00	**-1.04**	0.00	**-0.05**							**-0.05**
Off-road	Off-Road	0.00	**-0.15**	0.00	**-0.01**					0.00		**-0.01**
Ships	Off-Road	0.00	0.00	0.00	0.00					0.00		0.00
Consumer Products	Evap	0.00	0.00	0.00	0.00							
Pesticides/Fertilizers Corr.	Evap	0.00	0.00	0.00	0.00							
Composting Green Waste	Evap	**37.86**	0.00	0.00	0.00							
Composting Biosolids	Evap	**7.00**	0.00	0.00	0.00							
Rule 4103	Open Burning	0.00	0.00	0.0000	0.00							
Rules 4307 & 4308	Boilers, Steam Gen, Process Heaters	0.00	0.00	0.00	0.00							0.00
Rule 4309	Dryers, Dehydraters and Ovens	0.00	**-0.27**	0.00	0.00							0.00
Rules 9510	On-Road (ISR)	0.00	0.00	0.00	0.00				0.00	0.00		
Rule 4401	Evap (Oilfield)	0.00	0.00	0.00	0.00							0.00
Rule 4570	Evap (CAF)	0.00	0.00	0.00	0.00							
Rule 4602-4612	Evap (Auto Paint)	0.00	0.00	0.00	0.00							
Rule 4694	Evap (Winery)	0.00	0.00	0.00	0.00							
Rule 4702	ICE	0.00	**6.20**	0.00	0.00							0.00
Rule 9310	On-Road (School Bus)	0.00	0.00	0.00	0.00				0.00	0.00		
Rules 4307, 4308, 4309, 9510	Other Distrcit Rules	0.00	0.00	0.00	0.00							0.00
Conformity Adjustment	Exhaust	0.00	0.00	0.00	0.00				0.00	0.00		
Conformity Adjustment	Road Dust	0.00	0.00	0.00	0.00			0.00				
Rule 4696	Wine Fermentation	0.00	0.00	0.00	0.00							
Rule 4623	Tanks	0.00	0.00	0.00	0.00							
Rule 4901	RWC	0.00	0.00	0.00	**-0.21**							
Rule 4354	Glass Melting Furnaces	0.00	0.00	0.00	0.00							
ARB CMs									0.00	0.00		
All Adjustments & CMs		**44.86**	**-5.58**	**0.00**	**-0.30**	0.00	0.00	0.00	**-0.03**	0.00	0.00	**-0.06**
ARB Adjustments		**0.00**	**-11.51**	**0.00**	**-0.09**							
SJV Adjustments		**44.86**	**5.93**	**0.00**	**-0.21**							

Adjustments to 2005 Annual Baseline EI

		ROG	NOx	SOx	PM2.5	Organic Carbon Secondary from ROG (not mobile)	Sum of Burning	Burning - RWC EIC3 610	Burning - Ag Burn EIC3 670	Burning - fires EIC3 660	Ammonimum Nitrate NOx Total	Sulfate SOx Total
HHDD Trucks	Trucks	0.00	0.00	0.00	0.00						0.00	0.00
Reflash	Trucks	0.00	**-8.75**	0.00	0.00						**-8.75**	0.00
Public Fleet	On-Road	0.00	0.00	0.00	0.00						0.00	0.00
Idling	On-Road	0.00	**-1.57**	0.00	**-0.03**						**-1.57**	0.00
AB 1493	Mobile	0.00	0.00	0.00	0.00						0.00	0.00
Moyer	Off-Road Equipment	0.00	**-1.04**	0.00	**-0.05**						**-1.04**	0.00
Off-road	Off-Road	0.00	**-0.15**	0.00	**-0.01**						**-0.15**	0.00
Ships	Off-Road	0.00	0.00	0.00	0.00						0.00	0.00
Consumer Products	Evap	0.00	0.00	0.00	0.00	0.00					0.00	0.00
Pesticides/Fertilizers Corr.	Evap	0.00	0.00	0.00	0.00	0.00					0.00	0.00
Composting Green Waste	Evap	**37.86**	0.00	0.00	0.00	**37.86**					0.00	0.00
Composting Biosolids	Evap	**7.00**	0.00	0.00	0.00	**7.00**					0.00	0.00
Rule 4103	Open Burning	0.00	0.00	0.0000	0.00	0.00	0.00		0.00		0.00	0.00
Rules 4307 & 4308	Boilers, Steam Gen, Process Heaters	0.00	0.00	0.00	0.00	0.00					0.00	0.00
Rule 4309	Dryers, Dehydraters and Ovens	0.00	**-0.27**	0.00	0.00	0.00					**-0.27**	0.00
Rules 9510	On-Road (ISR)	0.00	0.00	0.00	0.00						0.00	0.00
Rule 4401	Evap (Oilfield)	0.00	0.00	0.00	0.00	0.00					0.00	0.00
Rule 4570	Evap (CAF)	0.00	0.00	0.00	0.00	0.00					0.00	0.00
Rule 4602-4612	Evap (Auto Paint)	0.00	0.00	0.00	0.00	0.00					0.00	0.00
Rule 4694	Evap (Winery)	0.00	0.00	0.00	0.00	0.00					0.00	0.00
Rule 4702	ICE	0.00	**6.20**	0.00	0.00	0.00					**6.20**	0.00
Rule 9310	On-Road (School Bus)	0.00	0.00	0.00	0.00						0.00	0.00
Rules 4307, 4308, 4309, 9510	Other Distrcit Rules	0.00	0.00	0.00	0.00	0.00					0.00	0.00
Conformity Adjustment	Exhaust	0.00	0.00	0.00	0.00						0.00	0.00
Conformity Adjustment	Road Dust	0.00	0.00	0.00	0.00						0.00	0.00
Rule 4696	Wine Fermentation	0.00	0.00	0.00	0.00	0.00					0.00	0.00
Rule 4623	Tanks	0.00	0.00	0.00	0.00	0.00					0.00	0.00
Rule 4901	RWC	0.00	0.00	0.00	**-0.21**			**-0.21**			0.00	0.00
Rule 4354	Glass Melting Furnaces	0.00	0.00	0.00	0.00						0.00	0.00
ARB CMs											0.00	0.00
All Adjustments & CMs		**44.86**	**-5.58**	**0.00**	**-0.30**	**44.86**	0.00	**-0.21**	0.00	0.00	**-5.58**	0.00
ARB Adjustments		**0.00**	**-11.51**	**0.00**	**-0.09**							
SJV Adjustments		**44.86**	**5.93**	**0.00**	**-0.21**							

Adjustments to 2005 Annual Baseline EI

		ROG	NOx	SOx	PM2.5	Unassigned PM2.5 Total	Unassigned PM2.5 Total w/o Wind	NOx Mobile On-Road	NOx not Mobile On-Road	SOx Mobile On-Road	SOx not Mobile On-Road	ROG * Total
HHDD Trucks	Trucks	0.00	0.00	0.00	0.00	0.00	0.00					
Reflash	Trucks	0.00	**-8.75**	0.00	0.00	0.00	0.00					
Public Fleet	On-Road	0.00	0.00	0.00	0.00	0.00	0.00					
Idling	On-Road	0.00	**-1.57**	0.00	**-0.03**	**-0.03**	**-0.03**					
AB 1493	Mobile	0.00	0.00	0.00	0.00	0.00	0.00					
Moyer	Off-Road Equipment	0.00	**-1.04**	0.00	**-0.05**	**-0.05**	**-0.05**					
Off-road	Off-Road	0.00	**-0.15**	0.00	**-0.01**	**-0.01**	**-0.01**					
Ships	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00					
Consumer Products	Evap	0.00	0.00	0.00	0.00	0.00	0.00					
Pesticides/Fertilizers Corr.	Evap	0.00	0.00	0.00	0.00	0.00	0.00					
Composting Green Waste	Evap	**37.86**	0.00	0.00	0.00	0.00	0.00					
Composting Biosolids	Evap	**7.00**	0.00	0.00	0.00	0.00	0.00					
Rule 4103	Open Burning	0.00	0.00	0.0000	0.00	0.00	0.00			**Not Used**		
Rules 4307 & 4308	Boilers, Steam Gen, Process Heaters	0.00	0.00	0.00	0.00	0.00	0.00			**Not Mapped**		
Rule 4309	Dryers, Dehydraters and Ovens	0.00	**-0.27**	0.00	0.00	0.00	0.00					
Rules 9510	On-Road (ISR)	0.00	0.00	0.00	0.00	0.00	0.00					
Rule 4401	Evap (Oilfield)	0.00	0.00	0.00	0.00	0.00	0.00					
Rule 4570	Evap (CAF)	0.00	0.00	0.00	0.00	0.00	0.00					
Rule 4602-4612	Evap (Auto Paint)	0.00	0.00	0.00	0.00	0.00	0.00					
Rule 4694	Evap (Winery)	0.00	0.00	0.00	0.00	0.00	0.00					
Rule 4702	ICE	0.00	**6.20**	0.00	0.00	0.00	0.00					
Rule 9310	On-Road (School Bus)	0.00	0.00	0.00	0.00	0.00	0.00					
Rules 4307, 4308, 4309, 9510	Other Distrcit Rules	0.00	0.00	0.00	0.00	0.00	0.00					
Conformity Adjustment	Exhaust	0.00	0.00	0.00	0.00	0.00	0.00					
Conformity Adjustment	Road Dust	0.00	0.00	0.00	0.00	0.00	0.00					
Rule 4696	Wine Fermentation	0.00	0.00	0.00	0.00	0.00	0.00					
Rule 4623	Tanks	0.00	0.00	0.00	0.00	0.00	0.00					
Rule 4901	RWC	0.00	0.00	0.00	**-0.21**	**-0.21**	**-0.21**					
Rule 4354	Glass Melting Furnaces	0.00	0.00	0.00	0.00	0.00	0.00					
ARB CMs						0.00	0.00					
All Adjustments & CMs		**44.86**	**-5.58**	**0.00**	**-0.30**	**-0.30**	**-0.30**	0.00	0.00	0.00	0.00	0.00
ARB Adjustments		**0.00**	**-11.51**	**0.00**	**-0.09**							
SJV Adjustments		**44.86**	**5.93**	**0.00**	**-0.21**							

Adjustments to 2005 Annual Baseline EI

		ROG	NOx	SOx	PM2.5	ROG not Mobile On-Road	ROG Other Mobile	ROG Mobile On-Road	PM2.5 Mobile Exhaust	PM2.5 Area Mobile (sum)	PM2.5 windblown EIC3 650	PM2.5-other burning EIC3 690, 699
HHDD Trucks	Trucks	0.00	0.00	0.00	0.00							
Reflash	Trucks	0.00	**-8.75**	0.00	0.00							
Public Fleet	On-Road	0.00	0.00	0.00	0.00							
Idling	On-Road	0.00	**-1.57**	0.00	**-0.03**							
AB 1493	Mobile	0.00	0.00	0.00	0.00							
Moyer	Off-Road Equipment	0.00	**-1.04**	0.00	**-0.05**							
Off-road	Off-Road	0.00	**-0.15**	0.00	**-0.01**							
Ships	Off-Road	0.00	0.00	0.00	0.00							
Consumer Products	Evap	0.00	0.00	0.00	0.00							
Pesticides/Fertilizers Corr.	Evap	0.00	0.00	0.00	0.00							
Composting Green Waste	Evap	**37.86**	0.00	0.00	0.00							
Composting Biosolids	Evap	**7.00**	0.00	0.00	0.00							
Rule 4103	Open Burning	0.00	0.00	0.0000	0.00				**Not Used**			
Rules 4307 & 4308	Boilers, Steam Gen, Process Heaters	0.00	0.00	0.00	0.00				**Not Mapped**			
Rule 4309	Dryers, Dehydraters and Ovens	0.00	**-0.27**	0.00	0.00							
Rules 9510	On-Road (ISR)	0.00	0.00	0.00	0.00							
Rule 4401	Evap (Oilfield)	0.00	0.00	0.00	0.00							
Rule 4570	Evap (CAF)	0.00	0.00	0.00	0.00							
Rule 4602-4612	Evap (Auto Paint)	0.00	0.00	0.00	0.00							
Rule 4694	Evap (Winery)	0.00	0.00	0.00	0.00							
Rule 4702	ICE	0.00	**6.20**	0.00	0.00							
Rule 9310	On-Road (School Bus)	0.00	0.00	0.00	0.00							
Rules 4307, 4308, 4309, 9510	Other Distrcit Rules	0.00	0.00	0.00	0.00							
Conformity Adjustment	Exhaust	0.00	0.00	0.00	0.00							
Conformity Adjustment	Road Dust	0.00	0.00	0.00	0.00							
Rule 4696	Wine Fermentation	0.00	0.00	0.00	0.00							
Rule 4623	Tanks	0.00	0.00	0.00	0.00							
Rule 4901	RWC	0.00	0.00	0.00	**-0.21**							
Rule 4354	Glass Melting Furnaces	0.00	0.00	0.00	0.00							
ARB CMs												
All Adjustments & CMs		**44.86**	**-5.58**	**0.00**	**-0.30**	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ARB Adjustments		**0.00**	**-11.51**	**0.00**	**-0.09**							
SJV Adjustments		**44.86**	**5.93**	**0.00**	**-0.21**							

2014 Annual Check EI Group	Geologic not mobile	Geologic not mobile not windblown	Reg VIII Geologic EIC3 620, 630, 640, 645, 650	PM2.5 Mobile On-Road	ROG Mobile Exhaust	Tire and Brake Wear	Organic Carbon Directly Emitted PM2.5	Organic Carbon Secondary from ROG (not mobile)	Sum of Burning	Burning - RWC EIC3 610	Burning - Ag Burn EIC3 670	Burning - fires EIC3 660	Ammonimum Nitrate NOx Total	Sulfate SOx Total	Unassigned PM2.5 Total
	E17	E18	E19	E20	E13	E07	E21	E11	E28	E22	E23	E25	E01	E04	E14
Fresno	9.5010	7.1499	8.9873	1.3780	23.3406	0.2395	3.0043	52.2484	6.6183	1.8655	4.6835	0.0693	75.4444	10.3837	21.1812
Kern	5.5514	4.6583	4.8947	2.3825	18.1350	0.2407	4.7370	53.1009	1.6434	1.2257	0.3983	0.0194	106.4542	4.4541	14.6916
Kings	3.2294	2.1447	3.0466	0.4592	6.3899	0.0499	1.9816	10.9573	0.3268	0.1685	0.1508	0.0075	22.3885	0.7670	6.0582
Madera	2.1710	1.8670	1.9918	0.4047	6.4874	0.0586	1.0559	13.1320	1.1383	0.5199	0.6081	0.0103	26.3647	0.9794	5.0500
Merced	4.0666	2.9666	3.9261	0.9391	7.1035	0.1041	1.2338	20.3546	0.7167	0.4075	0.2956	0.0136	36.0301	0.9032	7.0879
San Joaquin	3.6950	3.4342	3.4822	1.0754	19.0029	0.1851	2.1640	24.2322	1.4109	1.1759	0.2275	0.0075	66.2192	5.3357	10.0856
Stanislaus	4.1496	3.7106	3.9476	0.6261	11.4404	0.1180	1.6335	28.7751	1.3104	1.0377	0.2505	0.0222	33.1241	1.2725	7.9777
Tulare	5.4123	4.9214	5.0340	0.5392	12.7373	0.1131	1.3188	30.7969	2.5152	0.7076	1.7752	0.0324	32.7052	0.8998	12.2470
SJV Total	37.7763	30.8527	35.3103	7.8041	104.6370	1.1090	17.1289	233.5974	15.6800	7.1083	8.3895	0.1822	398.7304	24.9954	84.3791
Fresno + Madera	11.6720	9.0169	10.9791	1.7827	29.8280	0.2981	4.0603	65.3805	7.7566	2.3854	5.2916	0.0796	101.8091	11.3632	26.2312
Stanislaus + Merced	8.2162	6.6772	7.8737	1.5652	18.5439	0.2221	2.8673	49.1297	2.0271	1.4452	0.5461	0.0358	69.1542	2.1757	15.0656
Tulare + Kings	8.6417	7.0661	8.0806	0.9983	19.1272	0.1630	3.0304	41.7542	2.8420	0.8761	1.9259	0.0399	55.0937	1.6668	18.3052

Zone EI Calculations

Highlight = used in rollback cell

Area Calculation	PM2.5 not Mobile G	PM2.5 not mobile minus Windblown H	PM2.5 Geologic	PM2.5 Mobile J	TOG Mobile Total =F+L	Tire and Brake Wear (using NOx distr)	PM2.5 Organic Carbon (Stationary sources)	TOG not mobile	Sum of Burning	PM2.5 RWC SIC 610	PM2.5 Ag burn SIC 670	PM2.5- fires SIC 660 (annual and 10/21/99)	NOx Total Sum of A+B	SOx Total Sum of C+D	PM2.5 Total (annual only) Sum of G+J
1-St	1.38	1.25	1.04	0.42	6.47	0.08	0.68	5.34	0.71	0.66	0.04	0.01	19.47	0.98	1.80
2a-Me	3.11	2.27	2.95	0.82	6.07	0.09	0.90	17.71	0.61	0.35	0.24	0.01	30.75	0.79	3.93
2b-SJ	0.34	0.32	0.33	0.05	0.89	0.01	0.21	5.46	0.09	0.06	0.03	0.00	3.40	0.19	0.39
2c-St	2.36	2.10	2.48	0.19	4.28	0.04	0.82	22.90	0.48	0.27	0.20	0.01	11.92	0.21	2.55
3-Fr	1.88	1.46	1.06	0.80	10.39	0.15	1.08	19.48	1.43	1.27	0.13	0.02	36.12	4.31	2.69
4a-Fr	2.07	1.53	1.97	0.17	3.08	0.03	0.44	16.48	1.57	0.40	1.16	0.01	11.83	2.00	2.24
4b-Ma	0.93	0.80	0.81	0.26	2.51	0.04	0.62	4.13	0.49	0.18	0.31	0.00	15.28	0.73	1.19
5a-Fr	0.45	0.33	0.45	0.03	0.51	0.01	0.09	5.48	0.29	0.05	0.23	0.00	4.16	2.20	0.48
5b-Tu	0.18	0.17	0.19	0.01	0.20	0.00	0.02	1.59	0.08	0.00	0.08	0.00	0.66	0.01	0.19
5c-Ki	0.95	0.60	0.85	0.25	2.52	0.03	0.20	8.64	0.16	0.12	0.04	0.00	12.04	0.48	1.21
6a-Tu	0.23	0.21	0.24	0.00	0.14	0.00	0.01	1.71	0.12	0.00	0.11	0.00	0.66	0.01	0.23
6b-Ki	1.11	0.76	1.10	0.06	0.50	0.01	0.91	1.11	0.07	0.01	0.06	0.00	3.51	0.11	1.18
7-Tu	2.40	2.19	2.07	0.37	6.67	0.08	0.75	17.60	1.17	0.42	0.73	0.01	19.41	0.56	2.77
8-Tu	1.66	1.51	1.64	0.13	3.17	0.03	0.26	9.42	0.89	0.15	0.73	0.01	9.14	0.20	1.79
9-Ke	0.72	0.60	0.78	0.03	0.45	0.00	0.29	3.08	0.09	0.01	0.08	0.00	2.58	0.24	0.75
10-Ke	1.06	0.82	1.07	0.21	3.14	0.02	0.29	5.34	0.24	0.14	0.10	0.00	10.28	0.27	1.27
11-Ke	0.68	0.59	0.50	0.08	0.52	0.01	1.29	15.27	0.09	0.05	0.04	0.00	9.39	2.46	0.76
12-Ke	2.19	1.87	1.61	1.97	13.14	0.20	2.12	25.93	1.13	1.00	0.11	0.01	78.68	1.26	4.15
13-Ke	0.92	0.78	0.93	0.09	0.89	0.01	0.74	3.48	0.10	0.03	0.07	0.00	5.52	0.22	1.01

Sums															
Sum 1,2	7.20	5.93	6.80	1.47	17.70	0.21	2.61	51.41	1.89	1.35	0.51	0.03	65.54	2.17	8.67
Sum 3,4	4.88	3.78	3.84	1.23	15.98	0.22	2.14	40.10	3.49	1.85	1.60	0.04	63.24	7.05	6.12
Sum 5,6,7,8	6.99	5.78	6.54	0.85	13.71	0.15	2.25	45.54	2.78	0.76	1.99	0.03	49.58	3.57	7.85
Sum 5	1.59	1.11	1.49	0.29	3.23	0.04	0.30	15.71	0.53	0.17	0.35	0.01	16.85	2.69	1.88
Sum 6	0.64	0.50	0.64	0.03	0.71	0.01	0.11	7.07	0.37	0.06	0.31	0.00	4.82	2.21	0.67
Sum 6,8	3.00	2.48	2.98	0.20	3.81	0.03	1.19	12.24	1.08	0.17	0.91	0.01	13.32	0.32	3.19
Sum 5,6,7,8,10	8.05	6.60	7.61	1.06	16.84	0.17	2.54	50.88	3.02	0.90	2.09	0.03	59.86	3.84	9.11
Sum 9,10,11,12	4.10	3.52	3.99	0.46	7.27	0.06	2.14	33.11	1.31	0.34	0.95	0.01	31.39	3.16	4.56
Sum 10,12,13	4.16	3.47	3.61	2.27	17.17	0.23	3.15	34.75	1.47	1.17	0.28	0.02	94.49	1.75	6.43

2014 Annual

Check EI Group	Unassigned PM2.5 Total w/o Wind	NOx Mobile On-Road	NOx not Mobile On Road	SOx Mobile On-Road	SOx not Mobile On Road	ROG * Total	ROG not Mobile On-Road	ROG Other Mobile	ROG Mobile On-Road	PM2.5 Mobile Exhaust	PM2.5 Area Mobile (sum)	PM2.5 windblown EIC3 650	PM2.5-other burning EIC3 690, 699
	E16	E02	E03	E05	E06	E08	E09	E10	E12	E27	E26	E15	E24
Fresno	18.8301	39.7465	35.6979	0.1636	10.2201	75.5890	63.9918	11.7434	11.5972	2.5020	1.1240	2.3511	0.2092
Kern	13.7985	67.7957	38.6585	0.1813	4.2727	71.2359	59.3865	6.2856	11.8494	3.3138	0.9313	0.8931	0.1272
Kings	4.9735	13.5087	8.8798	0.0365	0.7305	17.3472	14.8222	3.8649	2.5250	1.9324	1.4732	1.0847	0.0278
Madera	4.7460	10.7437	15.6210	0.0400	0.9394	19.6194	16.7713	3.6393	2.8481	0.7013	0.2966	0.3040	0.0259
Merced	5.9879	24.6431	11.3870	0.0736	0.8297	27.4581	22.6195	2.2649	4.8386	1.2706	0.3315	1.1000	0.0601
San Joaquin	9.8248	28.5945	37.6247	0.1220	5.2136	43.2351	34.2164	9.9842	9.0187	2.5333	1.4579	0.2608	0.1279
Stanislaus	7.5387	18.4789	14.6452	0.0812	1.1912	40.2155	33.3857	4.6106	6.8298	1.2056	0.5795	0.4390	0.1177
Tulare	11.7561	16.9291	15.7762	0.0744	0.8255	43.5342	37.1532	6.3563	6.3810	1.1461	0.6069	0.4909	0.0866
SJV Total	77.4555	220.4401	178.2903	0.7727	24.2227	338.2344	282.3466	48.7492	55.8878	14.6050	6.8009	6.9236	0.7826
Fresno + Madera	23.5761	50.4902	51.3189	0.2037	11.1595	95.2085	80.7632	15.3827	14.4453	3.2033	1.4206	2.6551	0.2352
Stanislaus + Merced	13.5266	43.1219	26.0323	0.1548	2.0209	67.6736	56.0052	6.8755	11.6684	2.4762	0.9110	1.5390	0.1778
Tulare + Kings	16.7296	30.4377	24.6559	0.1109	1.5559	60.8814	51.9754	10.2212	8.9060	3.0784	2.0801	1.5756	0.1145

Zone EI Calculations

Area Calculation	PM2.5 minus Windblown (episodes) Sum of H+J	NOx Mobile A	NOx not Mobile B	SOx Mobile C	SOx not Mobile D	TOG * Total Sum of E+F	TOG not Mobile On-Road E	TOG Other Mobile L	TOG Mobile On-Road F	PM2.5 Mobile (plus area mobile) J+K	Area Mobile (sum) K	PM2.5 windblown	PM2.5-other burning (sum)
1-St	1.66	12.37	7.10	0.05	0.92	10.78	6.31	1.99	4.47	0.67	0.25		0.10
2a-Me	3.08	21.09	9.66	0.06	0.73	23.87	19.66	1.86	4.20	1.09	0.27		0.06
2b-SJ	0.36	1.24	2.17	0.01	0.19	7.68	7.29	0.49	0.39	0.12	0.07		0.00
2c-St	2.29	5.49	6.43	0.02	0.19	28.55	26.41	2.15	2.14	0.46	0.27		0.02
3-Fr	2.27	24.74	11.38	0.10	4.22	29.90	23.86	4.35	6.04	1.22	0.42		0.17
4a-Fr	1.69	5.17	6.66	0.02	1.98	21.10	19.74	1.71	1.36	0.33	0.16		0.02
4b-Ma	1.06	6.83	8.45	0.03	0.71	6.89	5.12	0.74	1.77	0.32	0.06		0.01
5a-Fr	0.36	0.83	3.33	0.00	2.19	6.73	6.50	0.28	0.23	0.05	0.03		0.01
5b-Tu	0.18	0.22	0.43	0.00	0.01	2.00	1.87	0.08	0.13	0.01	0.01		0.00
5c-Ki	0.85	7.85	4.19	0.02	0.46	12.69	11.11	0.95	1.57	0.61	0.36		0.02
6a-Tu	0.21	0.06	0.60	0.00	0.01	2.05	2.02	0.11	0.03	0.01	0.01		0.00
6b-Ki	0.83	1.76	1.75	0.01	0.10	1.77	1.44	0.17	0.32	0.13	0.07		0.00
7-Tu	2.56	11.53	7.88	0.05	0.51	25.28	21.01	2.40	4.27	0.60	0.23		0.07
8-Tu	1.64	4.19	4.95	0.02	0.18	12.87	11.30	1.60	1.57	0.29	0.15		0.02
9-Ke	0.63	0.68	1.90	0.00	0.24	3.67	3.35	0.12	0.32	0.05	0.02		0.00
10-Ke	1.03	6.25	4.04	0.02	0.25	7.82	6.43	1.74	1.39	0.47	0.26		0.01
11-Ke	0.67	2.19	7.19	0.01	2.45	16.74	16.39	0.17	0.35	0.11	0.03		0.01
12-Ke	3.83	56.64	22.05	0.15	1.11	38.54	29.39	4.00	9.14	2.56	0.59		0.10
13-Ke	0.87	2.03	3.49	0.01	0.22	4.46	3.82	0.25	0.64	0.13	0.04		0.00

Sums													
Sum 1,2	7.40	40.18	25.36	0.15	2.03	70.88	59.68	6.50	11.21	2.34	0.87	0.00	0.18
Sum 3,4	5.02	36.74	26.49	0.14	6.91	57.89	48.71	6.80	9.17	1.87	0.64	0.00	0.20
Sum 5,6,7,8	6.63	26.44	23.13	0.10	3.47	63.37	55.25	5.59	8.12	1.71	0.85	0.00	0.11
Sum 5	1.39	8.90	7.95	0.02	2.67	21.41	19.49	1.31	1.93	0.68	0.40	0.00	0.03
Sum 6	0.54	1.05	3.76	0.00	2.20	8.73	8.37	0.36	0.35	0.07	0.03	0.00	0.01
Sum 6,8	2.68	6.01	7.31	0.02	0.30	16.68	14.76	1.89	1.92	0.43	0.23	0.00	0.02
Sum 5,6,7,8,10	7.66	32.69	27.17	0.11	3.72	71.19	61.68	7.33	9.51	2.17	1.11	0.00	0.13
Sum 9,10,11,12	3.98	13.31	18.08	0.04	3.12	41.10	37.47	3.64	3.63	0.91	0.45	0.00	0.04
Sum 10,12,13	5.74	64.92	29.57	0.17	1.58	50.82	39.65	5.99	11.18	3.15	0.89	0.00	0.12

2014 Annual with Adjustments	Geologic not mobile	Geologic not mobile not windblown	Reg VIII Geologic EIC3 620, 630, 640, 645, 650	PM2.5 Mobile On-Road	ROG Mobile Exhaust	Tire and Brake Wear	Organic Carbon Directly Emitted PM2.5	Organic Carbon Secondary from ROG (not mobile)	Sum of Burning	Burning - RWC EIC3 610	Burning - Ag Burn EIC3 670	Burning - fires EIC3 660	Ammonimum Nitrate NOx Total	Sulfate SOx Total	Unassigned PM2.5 Total
Check EI Group	E17	E18	E19	E20	E13	E07	E21	E11	E28	E22	E23	E25	E01	E04	E14
Fresno	9.5010	7.1499	8.9873	0.4757	23.2982	0.2395	2.9622	57.8245	5.4111	1.5873	3.0869	0.0693	54.7466	9.9392	18.8542
Kern	5.5514	4.6583	4.8947	0.8225	18.1021	0.2407	4.6706	58.7679	1.3437	1.0429	0.2625	0.0194	77.2489	4.2634	13.0776
Kings	3.2294	2.1447	3.0466	0.1585	6.3783	0.0499	1.9539	12.1267	0.2672	0.1434	0.0994	0.0075	16.2463	0.7341	5.3926
Madera	2.1710	1.8670	1.9918	0.1397	6.4756	0.0586	1.0411	14.5335	0.9307	0.4424	0.4008	0.0103	19.1317	0.9375	4.4952
Merced	4.0666	2.9666	3.9261	0.3242	7.0906	0.1041	1.2165	22.5269	0.5860	0.3468	0.1948	0.0136	26.1454	0.8646	6.3092
San Joaquin	3.6950	3.4342	3.4822	0.3713	18.9684	0.1851	2.1337	26.8183	1.1536	1.0005	0.1500	0.0075	48.0522	5.1073	8.9775
Stanislaus	4.1496	3.7106	3.9476	0.2161	11.4196	0.1180	1.6106	31.8460	1.0714	0.8830	0.1651	0.0222	24.0366	1.2180	7.1013
Tulare	5.4123	4.9214	5.0340	0.1861	12.7142	0.1131	1.3003	34.0836	2.0564	0.6021	1.1700	0.0324	23.7327	0.8613	10.9015
SJV Total	37.7763	30.8527	35.3103	2.6941	104.4470	1.1090	16.8889	258.5274	12.8200	6.0483	5.5295	0.1822	289.3404	23.9254	75.1091
Fresno + Madera	11.6720	9.0169	10.9791	0.6154	29.7738	0.2981	4.0034	72.3580	6.3418	2.0297	3.4877	0.0796	73.8782	10.8767	23.3494
Stanislaus + Merced	8.2162	6.6772	7.8737	0.5403	18.5102	0.2221	2.8271	54.3730	1.6574	1.2297	0.3599	0.0358	50.1820	2.0825	13.4105
Tulare + Kings	8.6417	7.0661	8.0806	0.3446	19.0925	0.1630	3.2542	46.2103	2.3236	0.7455	1.2694	0.0399	39.9790	1.5955	16.2941

Zone EI Calculations

Highlight = used in rollback cell

Area Calculation	PM2.5 not Mobile G	PM2.5 not mobile minus Windblown H	PM2.5 Geologic	PM2.5 Mobile J	TOG Mobile Total =F+L	Tire and Brake Wear (using NOx distr)	PM2.5 Organic Carbon (Stationary sources)	TOG not mobile	Sum of Burning	PM2.5 RWC SIC 610	PM2.5 Ag burn SIC 670	PM2.5- fires SIC 660 (annual and 10/21/99)	NOx Total Sum of A+B	SOx Total Sum of C+D	PM2.5 Total (annual only) Sum of G+J
1-St	1.38	1.25	1.04	0.14	6.47	0.08	0.67	5.91	0.60	0.57	0.02	0.01	19.47	0.98	1.53
2a-Me	3.11	2.27	2.95	0.28	6.07	0.09	0.89	19.60	0.47	0.30	0.16	0.01	30.75	0.79	3.39
2b-SJ	0.34	0.32	0.33	0.02	0.89	0.01	0.21	6.05	0.07	0.05	0.02	0.00	3.40	0.19	0.36
2c-St	2.36	2.10	2.48	0.06	4.28	0.04	0.81	25.34	0.37	0.23	0.13	0.01	11.92	0.21	2.42
3-Fr	1.88	1.46	1.06	0.28	10.39	0.15	1.07	21.56	1.19	1.08	0.09	0.02	36.12	4.31	2.16
4a-Fr	2.07	1.53	1.97	0.06	3.08	0.03	0.43	18.24	1.12	0.34	0.77	0.01	11.83	2.00	2.13
4b-Ma	0.93	0.80	0.81	0.09	2.51	0.04	0.61	4.57	0.36	0.15	0.20	0.00	15.28	0.73	1.02
5a-Fr	0.45	0.33	0.45	0.01	0.51	0.01	0.08	6.06	0.20	0.05	0.15	0.00	4.16	2.20	0.46
5b-Tu	0.18	0.17	0.19	0.00	0.20	0.00	0.02	1.76	0.06	0.00	0.05	0.00	0.66	0.01	0.19
5c-Ki	0.95	0.60	0.85	0.09	2.52	0.03	0.19	9.56	0.13	0.10	0.03	0.00	12.04	0.48	1.04
6a-Tu	0.23	0.21	0.24	0.00	0.14	0.00	0.01	1.89	0.08	0.00	0.08	0.00	0.66	0.01	0.23
6b-Ki	1.11	0.76	1.10	0.02	0.50	0.01	0.90	1.23	0.05	0.01	0.04	0.00	3.51	0.11	1.14
7-Tu	2.40	2.19	2.07	0.13	6.67	0.08	0.74	19.48	0.85	0.36	0.48	0.01	19.41	0.56	2.53
8-Tu	1.66	1.51	1.64	0.05	3.17	0.03	0.26	10.42	0.62	0.13	0.48	0.01	9.14	0.20	1.70
9-Ke	0.72	0.60	0.78	0.01	0.45	0.00	0.29	3.41	0.06	0.00	0.05	0.00	2.58	0.24	0.73
10-Ke	1.06	0.82	1.07	0.07	3.14	0.02	0.29	5.90	0.19	0.12	0.07	0.00	10.28	0.27	1.13
11-Ke	0.68	0.59	0.50	0.03	0.52	0.01	1.28	16.90	0.07	0.04	0.02	0.00	9.39	2.46	0.70
12-Ke	2.19	1.87	1.61	0.68	13.14	0.20	2.10	28.70	0.94	0.85	0.08	0.01	78.68	1.26	2.87
13-Ke	0.92	0.78	0.93	0.03	0.89	0.01	0.72	3.85	0.07	0.03	0.04	0.00	5.52	0.22	0.95

Sums															
Sum 1,2	7.20	5.93	6.80	0.51	17.70	0.21	2.58	56.90	1.51	1.15	0.33	0.03	65.54	2.17	7.71
Sum 3,4	4.88	3.78	3.84	0.43	15.98	0.22	2.11	44.38	2.67	1.57	1.06	0.04	63.24	7.05	5.31
Sum 5,6,7,8	6.99	5.78	6.54	0.29	13.71	0.15	2.22	50.40	1.99	0.65	1.31	0.03	49.58	3.57	7.29
Sum 5	1.59	1.11	1.49	0.10	3.23	0.04	0.30	17.38	0.39	0.15	0.23	0.01	16.85	2.69	1.69
Sum 6	0.64	0.50	0.64	0.01	0.71	0.01	0.11	7.82	0.26	0.05	0.21	0.00	4.82	2.21	0.65
Sum 6,8	3.00	2.48	2.98	0.07	3.81	0.03	1.17	13.54	0.75	0.14	0.60	0.01	13.32	0.32	3.06
Sum 5,6,7,8,10	8.05	6.60	7.61	0.37	16.84	0.17	2.50	56.31	2.18	0.76	1.38	0.03	59.86	3.84	8.42
Sum 9,10,11,12	4.10	3.52	3.99	0.16	7.27	0.06	2.11	36.64	0.93	0.29	0.63	0.01	31.39	3.16	4.26
Sum 10,12,13	4.16	3.47	3.61	0.78	17.17	0.23	3.10	38.46	1.20	0.99	0.19	0.02	94.49	1.75	4.94

2014 Annual with Adjustments	Unassigned PM2.5 Total w/o Wind	NOx Mobile On-Road	NOx not Mobile On Road	SOx Mobile On-Road	SOx not Mobile On Road	ROG * Total	ROG not Mobile On-Road	ROG Other Mobile	ROG Mobile On-Road	PM2.5 Mobile Exhaust	PM2.5 Area Mobile (sum)	PM2.5 windblown EIC3 650	PM2.5-other burning EIC3 690, 699
Check EI Group	E16	E02	E03	E05	E06	E08	E09	E10	E12	E27	E26	E15	E24
Fresno	16.5765	39.7465	35.6979	0.1636	10.2201	75.5890	63.9918	11.7434	11.5972	2.5020	1.1240	2.3511	0.2092
Kern	12.1471	67.7957	38.6585	0.1813	4.2727	71.2359	59.3865	6.2856	11.8494	3.3138	0.9313	0.8931	0.1272
Kings	4.3782	13.5087	8.8798	0.0365	0.7305	17.3472	14.8222	3.8649	2.5250	1.9324	1.4732	1.0847	0.0278
Madera	4.1780	10.7437	15.6210	0.0400	0.9394	19.6194	16.7713	3.6393	2.8481	0.7013	0.2966	0.3040	0.0259
Merced	5.2713	24.6431	11.3870	0.0736	0.8297	27.4581	22.6195	2.2649	4.8386	1.2706	0.3315	1.1000	0.0601
San Joaquin	8.6489	28.5945	37.6247	0.1220	5.2136	43.2351	34.2164	9.9842	9.0187	2.5333	1.4579	0.2608	0.1279
Stanislaus	6.6365	18.4789	14.6452	0.0812	1.1912	40.2155	33.3857	4.6106	6.8298	1.2056	0.5795	0.4390	0.1177
Tulare	10.3491	16.9291	15.7762	0.0744	0.8255	43.5342	37.1532	6.3563	6.3810	1.1461	0.6069	0.4909	0.0866
SJV Total	68.1855	220.4401	178.2903	0.7727	24.2227	338.2344	282.3466	48.7492	55.8878	14.6050	6.8009	6.9236	0.7826
Fresno + Madera	20.7544	50.4902	51.3189	0.2037	11.1595	95.2085	80.7632	15.3827	14.4453	3.2033	1.4206	2.6551	0.2352
Stanislaus + Merced	11.9077	43.1219	26.0323	0.1548	2.0209	67.6736	56.0052	6.8755	11.6684	2.4762	0.9110	1.5390	0.1778
Tulare + Kings	14.7273	30.4377	24.6559	0.1109	1.5559	60.8814	51.9754	10.2212	8.9060	3.0784	2.0801	1.5756	0.1145

Zone EI Calculations

Area	PM2.5 minus Windblown (episodes)	NOx Mobile	NOx not Mobile	SOx Mobile	SOx not Mobile	TOG * Total	TOG not Mobile On-Road	TOG Other Mobile	TOG Mobile On-Road	PM2.5 Mobile (plus area mobile)	Area Mobile (sum)	PM2.5 windblown	PM2.5-other burning (sum)
Calculation	**Sum of H+J**	**A**	**B**	**C**	**D**	**Sum of E+F**	**E**	**L**	**F**	**J+K**	**K**		
1-St	1.39	**12.37**	**7.10**	**0.05**	**0.92**	10.78	**6.31**	**1.99**	**4.47**	0.40	**0.25**		**0.10**
2a-Me	2.55	**21.09**	**9.66**	**0.06**	**0.73**	23.87	**19.66**	**1.86**	**4.20**	0.56	**0.27**		**0.06**
2b-SJ	0.33	**1.24**	**2.17**	**0.01**	**0.19**	7.68	**7.29**	**0.49**	**0.39**	0.09	**0.07**		**0.00**
2c-St	2.16	**5.49**	**6.43**	**0.02**	**0.19**	28.55	**26.41**	**2.15**	**2.14**	0.33	**0.27**		**0.02**
3-Fr	1.74	**24.74**	**11.38**	**0.10**	**4.22**	29.90	**23.86**	**4.35**	**6.04**	0.69	**0.42**		**0.17**
4a-Fr	1.58	**5.17**	**6.66**	**0.02**	**1.98**	21.10	**19.74**	**1.71**	**1.36**	0.22	**0.16**		**0.02**
4b-Ma	0.89	**6.83**	**8.45**	**0.03**	**0.71**	6.89	**5.12**	**0.74**	**1.77**	0.15	**0.06**		**0.01**
5a-Fr	0.34	**0.83**	**3.33**	**0.00**	**2.19**	6.73	**6.50**	**0.28**	**0.23**	0.04	**0.03**		**0.01**
5b-Tu	0.17	**0.22**	**0.43**	**0.00**	**0.01**	2.00	**1.87**	**0.08**	**0.13**	0.01	**0.01**		**0.00**
5c-Ki	0.69	**7.85**	**4.19**	**0.02**	**0.46**	12.69	**11.11**	**0.95**	**1.57**	0.45	**0.36**		**0.02**
6a-Tu	0.21	**0.06**	**0.60**	**0.00**	**0.01**	2.05	**2.02**	**0.11**	**0.03**	0.01	**0.01**		**0.00**
6b-Ki	0.79	**1.76**	**1.75**	**0.01**	**0.10**	1.77	**1.44**	**0.17**	**0.32**	0.09	**0.07**		**0.00**
7-Tu	2.32	**11.53**	**7.88**	**0.05**	**0.51**	25.28	**21.01**	**2.40**	**4.27**	0.36	**0.23**		**0.07**
8-Tu	1.56	**4.19**	**4.95**	**0.02**	**0.18**	12.87	**11.30**	**1.60**	**1.57**	0.20	**0.15**		**0.02**
9-Ke	0.61	**0.68**	**1.90**	**0.00**	**0.24**	3.67	**3.35**	**0.12**	**0.32**	0.03	**0.02**		**0.00**
10-Ke	0.90	**6.25**	**4.04**	**0.02**	**0.25**	7.82	**6.43**	**1.74**	**1.39**	0.33	**0.26**		**0.01**
11-Ke	0.61	**2.19**	**7.19**	**0.01**	**2.45**	16.74	**16.39**	**0.17**	**0.35**	0.05	**0.03**		**0.01**
12-Ke	2.55	**56.64**	**22.05**	**0.15**	**1.11**	38.54	**29.39**	**4.00**	**9.14**	1.27	**0.59**		**0.10**
13-Ke	0.81	**2.03**	**3.49**	**0.01**	**0.22**	4.46	**3.82**	**0.25**	**0.64**	0.07	**0.04**		**0.00**

Sums													
Sum 1,2	**6.43**	**40.18**	**25.36**	**0.15**	**2.03**	**70.88**	**59.68**	**6.50**	**11.21**	**1.37**	**0.87**	**0.00**	**0.18**
Sum 3,4	**4.21**	**36.74**	**26.49**	**0.14**	**6.91**	**57.89**	**48.71**	**6.80**	**9.17**	**1.07**	**0.64**	**0.00**	**0.20**
Sum 5,6,7,8	**6.07**	**26.44**	**23.13**	**0.10**	**3.47**	**63.37**	**55.25**	**5.59**	**8.12**	**1.15**	**0.85**	**0.00**	**0.11**
Sum 5	**1.20**	**8.90**	**7.95**	**0.02**	**2.67**	**21.41**	**19.49**	**1.31**	**1.93**	**0.49**	**0.40**	**0.00**	**0.03**
Sum 6	**0.51**	**1.05**	**3.76**	**0.00**	**2.20**	**8.73**	**8.37**	**0.36**	**0.35**	**0.05**	**0.03**	**0.00**	**0.01**
Sum 6,8	**2.55**	**6.01**	**7.31**	**0.02**	**0.30**	**16.68**	**14.76**	**1.89**	**1.92**	**0.30**	**0.23**	**0.00**	**0.02**
Sum 5,6,7,8,10	**6.97**	**32.69**	**27.17**	**0.11**	**3.72**	**71.19**	**61.68**	**7.33**	**9.51**	**1.48**	**1.11**	**0.00**	**0.13**
Sum 9,10,11,12	**3.68**	**13.31**	**18.08**	**0.04**	**3.12**	**41.10**	**37.47**	**3.64**	**3.63**	**0.61**	**0.45**	**0.00**	**0.04**
Sum 10,12,13	**4.26**	**64.92**	**29.57**	**0.17**	**1.58**	**50.82**	**39.65**	**5.99**	**11.18**	**1.67**	**0.89**	**0.00**	**0.12**

Adjustments to 2014 Annual Baseline EI

		ROG	NOx	SOx	PM2.5	Geologic not mobile	Geologic not mobile not windblown	Reg VIII Geologic EIC3 620, 630, 640, 645, 650	PM2.5 Mobile On-Road	ROG Mobile Exhaust	Tire and Brake Wear	Organic Carbon Directly Emitted PM2.5
HHDD Trucks	Trucks	0.00	0.00	0.00	0.00				0.00	0.00		
Reflash	Trucks	0.00	**-6.12**	0.00	0.00				0.00	0.00		
Public Fleet	On-Road	0.00	**-0.04**	0.00	**-0.03**				**-0.03**	0.00		
Idling	On-Road	0.00	**-12.15**	0.00	**-0.02**				**-0.02**	0.00		
AB 1493	Mobile	**-0.01**	**-0.01**	0.00	**-0.02**				**-0.02**	**-0.01**		
Moyer	Off-Road Equipment	**-0.11**	**-1.05**	0.00	**-0.05**							**-0.05**
Off-road	Off-Road	**-0.18**	**-2.17**	0.00	**-0.14**					**-0.18**		**-0.14**
Ships	Off-Road	0.00	**-0.04**	**-0.44**	**-0.05**					0.00		**-0.05**
Consumer Products	Evap	**-1.11**	0.00	0.00	0.00							
Pesticides/Fertilizers Corr.	Evap	0.00	0.00	0.00	0.00							
Composting Green Waste	Evap	**44.29**	0.00	0.00	0.00							
Composting Biosolids	Evap	**7.21**	0.00	0.00	0.00							
Rule 4103	Open Burning	**-2.48**	**-2.05**	**-0.05**	**-2.86**							
Rules 4307 & 4308	Boilers, Steam Gen, Process Heaters	0.00	**-0.85**	0.00	0.00							0.00
Rule 4309	Dryers, Dehydraters and Ovens	0.00	**-0.99**	0.00	0.00							0.00
Rules 9510	On-Road (ISR)	0.00	0.00	0.00	0.00				0.00	0.00		
Rule 4401	Evap (Oilfield)	0.00	0.00	0.00	0.00							0.00
Rule 4570	Evap (CAF)	**-21.24**	0.00	0.00	0.00							
Rule 4602	Evap (Auto Paint)	**-0.85**	0.00	0.00	0.00							
Rule 4694	Evap (Winery)	0.00	0.00	0.00	0.00							
Rule 4702	ICE	0.00	**-7.34**	0.00	0.00							0.00
Rule 9310	On-Road (School Bus)	0.00	**-0.58**	0.00	**-0.04**				**-0.04**	0.00		
Rules 4307, 4308, 4309, 9510	Other Distrcit Rules	0.00	0.00	0.00	0.00							0.00
Conformity Adjustment	Exhaust	0.00	0.00	0.00	0.00				0.00	0.00		
Conformity Adjustment	Road Dust	0.00	0.00	0.00	0.00			0.00				
Rule 4696	Wine Fermentation	**-0.78**	0.00	0.00	0.00							
Rule 4623	Tanks	**-0.11**	0.00	0.00	0.00							
Rule 4901	RWC	0.00	0.00	0.00	**-1.06**							
Rule 4354	Glass Melting Furnaces	0.00	0.00	**-0.58**	0.00							
ARB CMs		0.00	**-76.00**	0.00	**-5.00**				**-5.00**	0.00		
All Adjustments & CMs		**24.63**	**-109.39**	**-1.07**	**-9.27**	0.00	0.00	0.00	**-5.11**	**-0.19**	0.00	**-0.24**
ARB Adjustments		**-1.41**	**-21.58**	**-0.44**	**-0.31**							
SJV Adjustments		**26.04**	**-11.81**	**-0.63**	**-3.96**							

Adjustments to 2014 Annual Baseline EI

		ROG	NOx	SOx	PM2.5	Organic Carbon Secondary from ROG (not mobile)	Sum of Burning	Burning - RWC EIC3 610	Burning - Ag Burn EIC3 670	Burning - fires EIC3 660	Ammonimum Nitrate NOx Total	Sulfate SOx Total
HHDD Trucks	Trucks	0.00	0.00	0.00	0.00						0.00	0.00
Reflash	Trucks	0.00	**-6.12**	0.00	0.00						**-6.12**	0.00
Public Fleet	On-Road	0.00	**-0.04**	0.00	**-0.03**						**-0.04**	0.00
Idling	On-Road	0.00	**-12.15**	0.00	**-0.02**						**-12.15**	0.00
AB 1493	Mobile	**-0.01**	**-0.01**	0.00	**-0.02**						**-0.01**	0.00
Moyer	Off-Road Equipment	**-0.11**	**-1.05**	0.00	**-0.05**						**-1.05**	0.00
Off-road	Off-Road	**-0.18**	**-2.17**	0.00	**-0.14**						**-2.17**	0.00
Ships	Off-Road	0.00	**-0.04**	**-0.44**	**-0.05**						**-0.04**	**-0.44**
Consumer Products	Evap	**-1.11**	0.00	0.00	0.00	**-1.11**					0.00	0.00
Pesticides/Fertilizers Corr.	Evap	0.00	0.00	0.00	0.00	0.00					0.00	0.00
Composting Green Waste	Evap	**44.29**	0.00	0.00	0.00	**44.29**					0.00	0.00
Composting Biosolids	Evap	**7.21**	0.00	0.00	0.00	**7.21**					0.00	0.00
Rule 4103	Open Burning	**-2.48**	**-2.05**	**-0.05**	**-2.86**	**-2.48**	**-2.86**		**-2.86**		**-2.05**	**-0.05**
Rules 4307 & 4308	Boilers, Steam Gen, Process Heaters	0.00	**-0.85**	0.00	0.00	0.00					**-0.85**	0.00
Rule 4309	Dryers, Dehydraters and Ovens	0.00	**-0.99**	0.00	0.00	0.00					**-0.99**	0.00
Rules 9510	On-Road (ISR)	0.00	0.00	0.00	0.00						0.00	0.00
Rule 4401	Evap (Oilfield)	0.00	0.00	0.00	0.00	0.00					0.00	0.00
Rule 4570	Evap (CAF)	**-21.24**	0.00	0.00	0.00	**-21.24**					0.00	0.00
Rule 4602	Evap (Auto Paint)	**-0.85**	0.00	0.00	0.00	**-0.85**					0.00	0.00
Rule 4694	Evap (Winery)	0.00	0.00	0.00	0.00	0.00					0.00	0.00
Rule 4702	ICE	0.00	**-7.34**	0.00	0.00	0.00					**-7.34**	0.00
Rule 9310	On-Road (School Bus)	0.00	**-0.58**	0.00	**-0.04**						**-0.58**	0.00
Rules 4307, 4308, 4309, 9510	Other Distrcit Rules	0.00	0.00	0.00	0.00	0.00					0.00	0.00
Conformity Adjustment	Exhaust	0.00	0.00	0.00	0.00						0.00	0.00
Conformity Adjustment	Road Dust	0.00	0.00	0.00	0.00						0.00	0.00
Rule 4696	Wine Fermentation	**-0.78**	0.00	0.00	0.00	**-0.78**					0.00	0.00
Rule 4623	Tanks	**-0.11**	0.00	0.00	0.00	**-0.11**					0.00	0.00
Rule 4901	RWC	0.00	0.00	0.00	**-1.06**			**-1.06**			0.00	0.00
Rule 4354	Glass Melting Furnaces	0.00	0.00	**-0.58**	0.00						0.00	**-0.58**
ARB CMs		0.00	**-76.00**	0.00	**-5.00**						**-76.00**	0.00
All Adjustments & CMs		**24.63**	**-109.39**	**-1.07**	**-9.27**	**24.93**	**-2.86**	**-1.06**	**-2.86**	0.00	**-109.39**	**-1.07**
ARB Adjustments		**-1.41**	**-21.58**	**-0.44**	**-0.31**							
SJV Adjustments		**26.04**	**-11.81**	**-0.63**	**-3.96**							

Adjustments to 2014 Annual Baseline EI

		ROG	NOx	SOx	PM2.5	Unassigned PM2.5 Total	Unassigned PM2.5 Total w/o Wind	NOx Mobile On-Road	NOx not Mobile On-Road	SOx Mobile On-Road	SOx not Mobile On-Road	ROG * Total
HHDD Trucks	Trucks	0.00	0.00	0.00	0.00	0.00	0.00					
Reflash	Trucks	0.00	**-6.12**	0.00	0.00	0.00	0.00					
Public Fleet	On-Road	0.00	**-0.04**	0.00	**-0.03**	**-0.03**	**-0.03**					
Idling	On-Road	0.00	**-12.15**	0.00	**-0.02**	**-0.02**	**-0.02**					
AB 1493	Mobile	**-0.01**	**-0.01**	0.00	**-0.02**	**-0.02**	**-0.02**					
Moyer	Off-Road Equipment	**-0.11**	**-1.05**	0.00	**-0.05**	**-0.05**	**-0.05**					
Off-road	Off-Road	**-0.18**	**-2.17**	0.00	**-0.14**	**-0.14**	**-0.14**					
Ships	Off-Road	0.00	**-0.04**	**-0.44**	**-0.05**	**-0.05**	**-0.05**					
Consumer Products	Evap	**-1.11**	0.00	0.00	0.00	0.00	0.00					
Pesticides/Fertilizers Corr.	Evap	0.00	0.00	0.00	0.00	0.00	0.00					
Composting Green Waste	Evap	**44.29**	0.00	0.00	0.00	0.00	0.00					
Composting Biosolids	Evap	**7.21**	0.00	0.00	0.00	0.00	0.00					
Rule 4103	Open Burning	**-2.48**	**-2.05**	**-0.05**	**-2.86**	**-2.86**	**-2.86**			Not Used		
Rules 4307 & 4308	Boilers, Steam Gen, Process Heaters	0.00	**-0.85**	0.00	0.00	0.00	0.00			Not Mapped		
Rule 4309	Dryers, Dehydraters and Ovens	0.00	**-0.99**	0.00	0.00	0.00	0.00					
Rules 9510	On-Road (ISR)	0.00	0.00	0.00	0.00	0.00	0.00					
Rule 4401	Evap (Oilfield)	0.00	0.00	0.00	0.00	0.00	0.00					
Rule 4570	Evap (CAF)	**-21.24**	0.00	0.00	0.00	0.00	0.00					
Rule 4602	Evap (Auto Paint)	**-0.85**	0.00	0.00	0.00	0.00	0.00					
Rule 4694	Evap (Winery)	0.00	0.00	0.00	0.00	0.00	0.00					
Rule 4702	ICE	0.00	**-7.34**	0.00	0.00	0.00	0.00					
Rule 9310	On-Road (School Bus)	0.00	**-0.58**	0.00	**-0.04**	**-0.04**	**-0.04**					
Rules 4307, 4308, 4309, 9510	Other Distrcit Rules	0.00	0.00	0.00	0.00	0.00	0.00					
Conformity Adjustment	Exhaust	0.00	0.00	0.00	0.00	0.00	0.00					
Conformity Adjustment	Road Dust	0.00	0.00	0.00	0.00	0.00	0.00					
Rule 4696	Wine Fermentation	**-0.78**	0.00	0.00	0.00	0.00	0.00					
Rule 4623	Tanks	**-0.11**	0.00	0.00	0.00	0.00	0.00					
Rule 4901	RWC	0.00	0.00	0.00	**-1.06**	**-1.06**	**-1.06**					
Rule 4354	Glass Melting Furnaces	0.00	0.00	**-0.58**	0.00	0.00	0.00					
ARB CMs		0.00	**-76.00**	0.00	**-5.00**	**-5.00**	**-5.00**					
All Adjustments & CMs		**24.63**	**-109.39**	**-1.07**	**-9.27**	**-9.27**	**-9.27**	0.00	0.00	0.00	0.00	0.00
ARB Adjustments		**-1.41**	**-21.58**	**-0.44**	**-0.31**							
SJV Adjustments		**26.04**	**-11.81**	**-0.63**	**-3.96**							

Adjustments to 2014 Annual Baseline EI						ROG not Mobile On-Road	ROG Other Mobile	ROG Mobile On-Road	PM2.5 Mobile Exhaust	PM2.5 Area Mobile (sum)	PM2.5 windblown EIC3 650	PM2.5-other burning EIC3 690, 699
		ROG	NOx	SOx	PM2.5							
HHDD Trucks	Trucks	0.00	0.00	0.00	0.00							
Reflash	Trucks	0.00	-6.12	0.00	0.00							
Public Fleet	On-Road	0.00	-0.04	0.00	-0.03							
Idling	On-Road	0.00	-12.15	0.00	-0.02							
AB 1493	Mobile	-0.01	-0.01	0.00	-0.02							
Moyer	Off-Road Equipment	-0.11	-1.05	0.00	-0.05							
Off-road	Off-Road	-0.18	-2.17	0.00	-0.14							
Ships	Off-Road	0.00	-0.04	-0.44	-0.05							
Consumer Products	Evap	-1.11	0.00	0.00	0.00							
Pesticides/Fertilizers Corr.	Evap	0.00	0.00	0.00	0.00							
Composting Green Waste	Evap	44.29	0.00	0.00	0.00							
Composting Biosolids	Evap	7.21	0.00	0.00	0.00							
Rule 4103	Open Burning	-2.48	-2.05	-0.05	-2.86							
Rules 4307 & 4308	Boilers, Steam Gen, Process Heaters	0.00	-0.85	0.00	0.00				Not Used Not Mapped			
Rule 4309	Dryers, Dehydraters and Ovens	0.00	-0.99	0.00	0.00							
Rules 9510	On-Road (ISR)	0.00	0.00	0.00	0.00							
Rule 4401	Evap (Oilfield)	0.00	0.00	0.00	0.00							
Rule 4570	Evap (CAF)	-21.24	0.00	0.00	0.00							
Rule 4602	Evap (Auto Paint)	-0.85	0.00	0.00	0.00							
Rule 4694	Evap (Winery)	0.00	0.00	0.00	0.00							
Rule 4702	ICE	0.00	-7.34	0.00	0.00							
Rule 9310	On-Road (School Bus)	0.00	-0.58	0.00	-0.04							
Rules 4307, 4308, 4309, 9510	Other Distrcit Rules	0.00	0.00	0.00	0.00							
Conformity Adjustment	Exhaust	0.00	0.00	0.00	0.00							
Conformity Adjustment	Road Dust	0.00	0.00	0.00	0.00							
Rule 4696	Wine Fermentation	-0.78	0.00	0.00	0.00							
Rule 4623	Tanks	-0.11	0.00	0.00	0.00							
Rule 4901	RWC	0.00	0.00	0.00	-1.06							
Rule 4354	Glass Melting Furnaces	0.00	0.00	-0.58	0.00							
ARB CMs		0.00	-76.00	0.00	-5.00							
All Adjustments & CMs		24.63	-109.39	-1.07	-9.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ARB Adjustments		-1.41	-21.58	-0.44	-0.31							
SJV Adjustments		26.04	-11.81	-0.63	-3.96							

Color codes

5%+	More than de minimus contribution, must be included in reduction strategy
10%+	Major contributing source

Receptor Analysis	Annual Standard = 15 2014 Projected SMAT Value DV*RRF	2005 Design Value (DV)	2005 / 2014 RRF	2014 Projected speciated mass	Pie Chart Labels (pie charts pages 53-60)	Geologic and Construction	Mobile Exhaust PM2.5	Mobile Exhaust VOC	Tire and Brake Wear	Organic Carbon PM2.5	Organic Carbon VOC	OC artifact included	Vegetative Burning	Nitrate including associated water	Sulfate including associated water	Unassigned
M1 Fresno 2005 calculated-2014 projected (2000 species)	12.40		0.721	14.96		0.87	0.75	0.37	0.52	1.43	0.24		2.83	5.40	2.18	0.38
Fresno 2005 calculated-2014 projected Annual %					Fresno 00	6%	5%	2%	3%	10%	2%		**19%**	**36%**	**15%**	3%
M2 Fresno 2005-2014 projected Annual from (2004-2006 species)	12.94	17.2	0.753	14.02		0.68	0.43	0.00	0.34	2.17	0.72		1.76	5.65	1.81	0.46
Fresno 2005-2014 projected Annual %					Fresno 04-06	5%	3%	0%	2%	**16%**	5%		**13%**	**40%**	**13%**	3%
PMF Fresno 2005-2014 projected Annual	12.17		0.707	15.59		0.68	0.91	0.44		2.63	0.49	2.39167	1.13	6.80	2.30	0.21
PMF Fresno 2005-2014 projected Annual %					PMF Fresno	4%	6%	3%	0%	**17%**	3%		7%	**44%**	**15%**	1%
M1 Kern 2005 calculated-2014 projected (2000 species)	13.76		0.728	14.97		1.41	0.56	0.28	0.81	0.97	0.14		1.94	7.25	1.24	0.35
Kern 2005 calculated-2014 projected Annual %					Kern 00	9%	4%	2%	5%	6%	1%		**13%**	**48%**	8%	2%
M2 Kern 2005-2014 projected Annual from (2004-2006 species)	14.02	18.9	0.742	15.74		1.02	0.44	0.00	0.31	2.39	0.72		1.34	7.19	1.90	0.43
Kern 2005-2014 projected Annual %					Kern 04-06	6%	3%	0%	2%	**15%**	5%		8.5%	**46%**	**12%**	3%
PMF Kern 2005-2014 projected Annual	14.09		0.746	17.94		1.87	0.53	0.27		2.77	0.43	2.89272	1.04	8.05	2.71	0.26
PMF Kern 2005-2014 projected Annual %					PMF Kern	**10%**	3%	1%	0%	**15%**	2%		6%	**45%**	**15%**	1%
Average																
Kings 2005 calculated-2014 projected (2000 species)	13.25	17.2	0.770	15.69		1.33	0.36	0.18	0.21	1.14	0.18		1.96	8.07	1.24	0.35
Kings 2005 calculated-2014 projected Annual %					Kings 00	8%	2%	1%	1%	7%	1%		**12%**	**51%**	8%	2%
Tulare 2005 calculated-2014 projected (2000 species)	13.29	18.2	0.730	15.85		1.37	0.69	0.32	0.38	1.10	0.18		2.03	7.94	1.44	0.38
Tulare 2005 calculated-2014 projected Annual %					Tulare 00	9%	4%	2%	2%	7%	1%		**13%**	**50%**	9%	2%

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kern -- Annual calculated 2005 species 2005 Design Value 18.9**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
2	Line1 Source Contribution from Analysis	From Kern 2000-2005 Projection of PM2.5 speciation for 2000-2001	Kern 2000-2005 Projection	Kern 2000-2005 Projection		Kern 2000-2005 Projection	Kern 2000-2005 Projection from estimated portion of OC mass included in Vegetative Burning =30%		Kern 2000-2005 Projection of Veg. Burning minus estimated Organic Carbon from other sources	Kern 2000-2005 Projection	Kern 2000-2005 Projection	Kern 2000-2005 Projection	Kern 2000-2005 Projection	
3	2005 projected Annual Result	20.56	1.34	2.85		0.69	1.27		2.79	9.54	1.57		0.49	
4	Line 2 Natural and Transport Contribution, see Protocol	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	0, no natural background, transport estimated at 0		0, no natural background, transport estimated at 0	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions. = 20%		Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic. =20% + 10%	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	100% because marine salts are a natural emission	0, no additional background estimate for unexplained mass	
5	LINE 2	2.67	0.1	0.0		0.0	0.3		0.8	1.2	0.2			
6	Line 3 Net for Rollback	Net for Rollback, default percentages adjustable for episode characteristics, applicable to all columns except as indicated.										Removed entirely from rollback, added back to result		
7	LINE 3	17.89	1.2	2.9		0.7	1.0		2.0	8.3	1.4	0.0	0.5	
8	Line 4 Local Contribution PM2.5 Primary Emissions Area of Influence	Source contribution from smallest area of influence, representative of large particle primary source area, includes all PM size emissions in the area - Rolled back against local area of influence emission estimates	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net, non-linear rollback	Mass adjusted influence of 50% PM2.5 of net		Mass adjusted influence of 50% PM2.5 of net	
9	LINE 4	8.74	0.401	1.6		0.380	0.4		0.812	4.491	0.452		0.141	
10	Line 5 Local Contribution Primary and Secondary Area of Influence of PM2.5	Rolled back against local PM2.5 area of influence emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net, non-linear rollback	Mass adjusted influence of 30% PM2.5 of net		Mass adjusted influence of 30% PM2.5 of net	
11	LINE 5	4.04	0.306	0.60		0.137	0.28		0.376	1.798	0.400		0.145	
12	Line 6 Sub regional Contribution Primary and Secondary PM2.5 (Line 5 and Line 6 are the same area for annual evaluation but may differ for episode evaluation)	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net, non-linear rollback	Mass adjusted influence of 15% PM2.5 of net		Mass adjusted influence of 15% PM2.5 of net	
13	LINE 6	2.02	0.153	0.30		0.068	0.14		0.188	0.899	0.200		0.072	
14	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net, non-linear rollback	Mass adjusted influence of 5% PM2.5 of net		Mass adjusted influence of 5% PM2.5 of net	
15	LINE 7	3.08	0.348	0.31		0.103	0.18		0.576	1.116	0.313		0.135	
16	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	Paved roads+ Unpaved roads+ Off road mobile+ Farm operations+ Construction+ Windblown	PM, ROG & CO onroad mobile+ PM, ROG & CO 860 offroad equipment PM, ROG & CO 870 farm equipment CO presumed to add minimal mass		Tire and brake wear as predicted by EMFAC	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM & CO Area, Stationary CO presumed to add minimal mass		PM & CO residential burning PM & CO waste burning and disposal PM cooking PM & CO fires CO presumed to add minimal mass	Total E.I. NOx (+ bacterial soil NOx estimate removed as natural background)	Total SOx	None, natural emission from the ocean, bay and delta waters	Total PM2.5	
17	What Row to use for Lookup Function ---------->		2	5	6	7	8	9	10	14	15	N/A	16	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kern -- Annual calculated 2005 species 2005 Design Value 18.9**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
18	2005 Emissions Inventory	(area of influence emissions inventory, each on a separate line for automated calculations)												**INDEX**
19	PM2.5	L1= 12	2.070	2.939		0.171	2.513		1.607				5.009	12-Ke
20		L2= Kern	5.252	3.560		0.204	5.603		2.480				17.185	Kern
21		Sr= Kern	5.252	3.560		0.204	5.603		2.480				17.185	Kern
22		R= SJV	35.882	11.206		0.926	21.562		22.810				96.129	SJV Total
23	NOx	L1= 12								115.821				12-Ke
24		L2= Kern								154.600				Kern
25		Sr= Kern								154.600				Kern
26		R= SJV								575.421				SJV Total
27	ROG	L1= 12			20.015			31.951						12-Ke
28		L2= Kern			27.421			65.418						Kern
29		Sr= Kern			27.421			65.418						Kern
30		R= SJV			157.574			262.243						SJV Total
31	SOx	L1= 12									1.906			12-Ke
32		L2= Kern									5.622			Kern
33		Sr= Kern									5.622			Kern
34		R= SJV									26.372			SJV Total
35	2014 Emissions Inventory PM2.5 SIP EI V1.0													
36	PM2.5 without new controls	L1= 12	2.188	0.679		0.201	2.095		0.941				2.867	12-Ke
37		L2= Kern	5.551	0.822		0.241	4.671		1.344				13.078	Kern
38		Sr= Kern	5.551	0.822		0.241	4.671		1.344				13.078	Kern
39		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
40	PM2.5 with new controls	L1= 12	2.188	0.679		0.201	2.095		0.941				2.867	12-Ke
41		L2= Kern	5.551	0.822		0.241	4.671		1.344				13.078	Kern
42		Sr= Kern	5.551	0.822		0.241	4.671		1.344				13.078	Kern
43		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
44	NOx without new controls	L1= 12								78.683				12-Ke
45		L2= Kern								77.249				Kern
46		Sr= Kern								77.249				Kern
47		R= SJV								289.340				SJV Total
48	NOx with new controls	L1= 12								78.683				12-Ke
49		L2= Kern								77.249				Kern
50		Sr= Kern								77.249				Kern
51		R= SJV								289.340				SJV Total
52	ROG without new controls	L1= 12			13.142			28.703						12-Ke
53		L2= Kern			18.102			58.768						Kern
54		Sr= Kern			18.102			58.768						Kern
55		R= SJV			104.447			258.527						SJV Total
56	ROG with new controls	L1= 12			13.142			28.703						12-Ke
57		L2= Kern			18.102			58.768						Kern
58		Sr= Kern			18.102			58.768						Kern
59		R= SJV			104.447			258.527						SJV Total
60	SOx without new controls	L1= 12									1.264			12-Ke
61		L2= Kern									4.263			Kern
62		Sr= Kern									4.263			Kern
63		R= SJV									23.925			SJV Total
64	SOx with new controls	L1= 12									1.264			12-Ke
65		L2= Kern									4.263			Kern
66		Sr= Kern									4.263			Kern
67		R= SJV									23.925			SJV Total

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kern -- Annual calculated 2005 species 2005 Design Value 18.9**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
68	2014 Rollback Projection									IMS95				
69	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2005 L1) * LINE 4	0.4	0.3	0.2	0.4	0.3	0.1	0.5	3.5	0.3		0.1	
70	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2005 L2) * LINE 5	0.3	0.1	0.1	0.2	0.2	0.0	0.2	1.2	0.3		0.1	
71	Sub regional Contribution	=(2014 Sr1/2005 Sr2) * LINE 6	0.2	0.1	0.0	0.1	0.1	0.0	0.1	0.6	0.2		0.1	
72	Regional Contribution	=(2014 R/2005 R) * LINE 7	0.4	0.1	0.0	0.1	0.1	0.0	0.3	0.7	0.3		0.1	
73	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.3		0.8	1.2	0.2	0.0	0.0	
74	2014 projected Annual Result	15.03	1.4	0.6	0.3	0.8	1.0	0.1	1.9	7.3	1.2	0.0	0.4	
75	2014 Rollback Projection with additional controls									IMS95				
76	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2005 L1) * LINE 4	0.4	0.3	0.2	0.4	0.3	0.1	0.5	3.5	0.3		0.1	
77	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2005 L2) * LINE 5	0.3	0.1	0.1	0.2	0.2	0.0	0.2	1.2	0.3		0.1	
78	Sub regional Contribution	=(2014 Sr1/2005 Sr2) * LINE 6	0.2	0.1	0.0	0.1	0.1	0.0	0.1	0.6	0.2		0.1	
79	Regional Contribution	=(2014 R/2005 R) * LINE 7	0.4	0.1	0.0	0.1	0.1	0.0	0.3	0.7	0.3		0.1	
80	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.3		0.8	1.2	0.2	0.0	0.0	
81	2014 projected Annual Result	15.03	1.4	0.6	0.3	0.8	1.0	0.1	1.9	7.3	1.2	0.0	0.4	
82										Linear				
83	2014 projected Annual Result	13.91	linear nitrate projection							3.1				
84	Modeling comparisons	15.03	IMS95 nitrate modeling							0.9				
85	Current 2005 Design value = 18.9	14.91	CMAQ nitrate modeling							0.4				
86		14.62	Average of all three							0.6				
87		14.97	Average of CMAQ and IMS95							5.0				
88														
89	Kern County Receptor SMAT Reduction RRF	RRF = 2005 Calculated Conc./ 2014 Conc.								CMAQ				
90	Design Value 18.9	0.68	linear nitrate projection							3.5				
91	RRF .832	0.73	IMS95 nitrate modeling							1.2				
92	FY Value = DV * RRF	0.73	CMAQ nitrate modeling							0.6				
93	13.762	0.71	Average of all three							0.7				
94	Target	0.728	Average of CMAQ and IMS95							6.0				
95	13.762													
96	0.794	16.32	RRF Species Target											
97														
98										Average CMAQ IMS95				
99	2014 projected Annual Result	14.97	1.409320155	0.56303363	0.2819294	0.813772045	0.970033587	0.1398037	1.941522543	7.254370335	1.242548976	0	0.351669525	
100														
101														
102	**County Specific Reduction Target Calculator**													
103	NOx County Specific Target Percentage Reductions	0%												
104	Calculator entry line NOx Tons reduction	0.00												
105	**SJV NOx Total EI in 2014 with adjustments**	289.34												
106	**NOx Tons required, Kern**	0.00												
107	**Kern County NOx EI (J46)**	77.25												
108	**Percent reduction Kern EI**	0%												
109														
110														
111	**Valleywide Reduction Target Calculator**													
112	NOx Regional Target Percentage Reductions	0%												
113	Calculator entry line NOx Tons reduction	0.00												
114	**SJV NOx Total EI in 2014 with adjustments**	289.34												
115	**NOx Valleywide tons required**	0.00												
116	**NOx tons required, Kern**	0.00												
117	**Kern County NOx EI (J46)**	77.25												
118	**Percent reduction Kern EI**	0%												

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kern - Annual** **2004-2005 species mass 20.71** **2005 Design Value 18.9**	**General Note**	**Geologic and Construction**	**Mobile Exhaust Profile Direct only, no SOA, VOC split removed**		**Tire and Brake Wear**	**Organic Carbon Industrial Primary PM2.5 MV and Ind. SOA VOC artifact Secondary Percentage adjusted due to MV profile**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
2	Line1 Source Contribution from Analysis	From ARB 2004-2006 CMB monthly analysis	From CMB	From CMB		From CMB	From CMB - 0.6 artifact		From CMB	From CMB	From CMB	From CMB, if present	Unaccounted mass from CMB, if any.	
3	LINE 1	21.23	0.97	1.91		0.26	3.61		1.93	9.47	2.40	0.08	0.6	
4	Line 2 Natural and Transport Contribution, see Protocol	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	0, no natural background, transport estimated at 0		0, no natural background, transport estimated at 0	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions. = 20%		Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic. =20% + 10%	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	100% because marine salts are a natural emission	0, no additional background estimate for unexplained mass	
5	LINE 2	2.94	0.1	0.0		0.0	0.7		0.6	1.2	0.3			
6	Line 3 Net for Rollback	Net for Rollback, default percentages adjustable for episode characteristics, applicable to all columns except as indicated.										Removed entirely from rollback, added back to result		
7	LINE 3	18.29	0.9	1.9		0.3	2.9		1.3	8.2	2.1	0.1	0.6	
8	Line 4 Local Contribution PM2.5 Primary Emissions Area of Influence	Source contribution from smallest area of influence, representative of large particle primary source area, includes all PM size emissions in the area - Rolled back against local area of influence emission estimates	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net, non-linear rollback	Mass adjusted influence of 50% PM2.5 of net		Mass adjusted influence of 50% PM2.5 of net	
9	LINE 4	8.60	0.290	1.1		0.145	1.2		0.561	4.453	0.692		0.171	
10	Line 5 Local Contribution Primary and Secondary Area of Influence of PM2.5	Rolled back against local PM2.5 area of influence emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net, non-linear rollback	Mass adjusted influence of 30% PM2.5 of net		Mass adjusted influence of 30% PM2.5 of net	
11	LINE 5	4.30	0.221	0.40		0.052	0.79		0.260	1.783	0.613		0.176	
12	Line 6 Sub regional Contribution Primary and Secondary PM2.5 (Line 5 and Line 6 are the same area for annual evaluation but may differ for episode evaluation)	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net, non-linear rollback	Mass adjusted influence of 15% PM2.5 of net		Mass adjusted influence of 15% PM2.5 of net	
13	LINE 6	2.15	0.110	0.20		0.026	0.40		0.130	0.892	0.306		0.088	
14	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net, non-linear rollback	Mass adjusted influence of 5% PM2.5 of net		Mass adjusted influence of 5% PM2.5 of net	
15	LINE 7	3.16	0.251	0.21		0.039	0.51		0.398	1.106	0.479		0.164	
16	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	Paved roads+ Unpaved roads+ Off road mobile+ Farm operations+ Construction+ Windblown	PM, ROG & CO onroad mobile+ PM, ROG & CO 860 offroad equipment PM, ROG & CO 870 farm equipment CO presumed to add minimal mass		Tire and brake wear as predicted by EMFAC	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM & CO Area, Stationary CO presumed to add minimal mass		PM & CO residential burning PM & CO waste burning and disposal PM cooking PM & CO fires CO presumed to add minimal mass	Total E.I. NOx (+ bacterial soil NOx estimate removed as natural background)	Total SOx	None, natural emission from the ocean, bay and delta waters	Total PM2.5	
17	What Row to use for Lookup Function ---------->		2	5	6	7	8	9	10	14	15	N/A	16	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kern - Annual** **2004-2005 species mass 20.71** **2005 Design Value 18.9**	**General Note**	**Geologic and Construction**	**Mobile Exhaust Profile Direct only, no SOA, VOC split removed**		**Tire and Brake Wear**	**Organic Carbon Industrial Primary PM2.5 MV and Ind. SOA VOC artifact Secondary Percentage adjusted due to MV profile**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
18	2005 Emissions Inventory	(area of influence emissions inventory, each on a separate line for automated calculations)												**INDEX**
19	PM2.5	L1= 12	2.070	2.939		0.171	2.513		1.607				5.009	12-Ke
20		L2= Kern	5.252	3.560		0.204	5.603		2.480				17.185	Kern
21		Sr= Kern	5.252	3.560		0.204	5.603		2.480				17.185	Kern
22		R= SJV	35.882	11.206		0.926	21.562		22.810				96.129	SJV Total
23	NOx	L1= 12								115.821				12-Ke
24		L2= Kern								154.600				Kern
25		Sr= Kern								154.600				Kern
26		R= SJV								575.421				SJV Total
27	ROG	L1= 12			20.015			51.966						12-Ke
28		L2= Kern			27.421			92.839						Kern
29		Sr= Kern			27.421			92.839						Kern
30		R= SJV			157.574			419.817						SJV Total
31	SOx	L1= 12									1.906			12-Ke
32		L2= Kern									5.622			Kern
33		Sr= Kern									5.622			Kern
34		R= SJV									26.372			SJV Total
35	2014 Emissions Inventory PM2.5 SIP EI V1.0													
36	PM2.5 without new controls	L1= 12	2.188	0.679		0.201	2.095		0.941				2.867	12-Ke
37		L2= Kern	5.551	0.822		0.241	4.671		1.344				13.078	Kern
38		Sr= Kern	5.551	0.822		0.241	4.671		1.344				13.078	Kern
39		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
40	PM2.5 with new controls	L1= 12	2.188	0.679		0.201	2.095		0.941				2.867	12-Ke
41		L2= Kern	5.551	0.822		0.241	4.671		1.344				13.078	Kern
42		Sr= Kern	5.551	0.822		0.241	4.671		1.344				13.078	Kern
43		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
44	NOx without new controls	L1= 12								78.683				12-Ke
45		L2= Kern								77.249				Kern
46		Sr= Kern								77.249				Kern
47		R= SJV								289.340				SJV Total
48	NOx with new controls	L1= 12								78.683				12-Ke
49		L2= Kern								77.249				Kern
50		Sr= Kern								77.249				Kern
51		R= SJV								289.340				SJV Total
52	ROG without new controls	L1= 12			13.142			41.845						12-Ke
53		L2= Kern			18.102			76.870						Kern
54		Sr= Kern			18.102			76.870						Kern
55		R= SJV			104.447			362.974						SJV Total
56	ROG with new controls	L1= 12			13.142			41.845						12-Ke
57		L2= Kern			18.102			76.870						Kern
58		Sr= Kern			18.102			76.870						Kern
59		R= SJV			104.447			362.974						SJV Total
60	SOx without new controls	L1= 12									1.264			12-Ke
61		L2= Kern									4.263			Kern
62		Sr= Kern									4.263			Kern
63		R= SJV									23.925			SJV Total
64	SOx with new controls	L1= 12									1.264			12-Ke
65		L2= Kern									4.263			Kern
66		Sr= Kern									4.263			Kern
67		R= SJV									23.925			SJV Total

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kern - Annual** **2004-2005 species mass 20.71** **2005 Design Value 18.9**	**General Note**	**Geologic and Construction**	**Mobile Exhaust Profile Direct only, no SOA, VOC split removed**		**Tire and Brake Wear**	**Organic Carbon Industrial Primary PM2.5 MV and Ind. SOA VOC artifact Secondary Percentage adjusted due to MV profile**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
68	2014 Rollback Projection									IMS95				
69	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2005 L1) * LINE 4	0.3	0.3	0.0	0.2	0.7	0.3	0.3	3.5	0.5		0.1	
70	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2005 L2) * LINE 5	0.2	0.1	0.0	0.1	0.5	0.2	0.1	1.2	0.5		0.1	
71	Sub regional Contribution	=(2014 Sr1/2005 Sr2) * LINE 6	0.1	0.0	0.0	0.0	0.2	0.1	0.1	0.6	0.2		0.1	
72	Regional Contribution	=(2014 R/2005 R) * LINE 7	0.3	0.1	0.0	0.0	0.3	0.1	0.2	0.7	0.4		0.1	
73	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.7		0.6	1.2	0.3	0.0	0.0	
74	2014 projected Annual Result	15.80	1.0	0.4	0.0	0.3	2.4	0.7	1.3	7.3	1.9	0.0	0.4	
75	2014 Rollback Projection with additional controls									IMS95				
76	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2005 L1) * LINE 4	0.3	0.3	0.0	0.2	0.7	0.3	0.3	3.5	0.5		0.1	
77	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2005 L2) * LINE 5	0.2	0.1	0.0	0.1	0.5	0.2	0.1	1.2	0.5		0.1	
78	Sub regional Contribution	=(2014 Sr1/2005 Sr2) * LINE 6	0.1	0.0	0.0	0.0	0.2	0.1	0.1	0.6	0.2		0.1	
79	Regional Contribution	=(2014 R/2005 R) * LINE 7	0.3	0.1	0.0	0.0	0.3	0.1	0.2	0.7	0.4		0.1	
80	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.7		0.6	1.2	0.3	0.0	0.0	
81	2014 projected Annual Result	15.80	1.0	0.4	0.0	0.3	2.4	0.7	1.3	7.3	1.9	0.0	0.4	
82										Linear				
83	2014 projected Annual Result	14.70	linear nitrate projection							3.0				
84	Modeling comparisons	15.80	IMS95 nitrate modeling							0.9				
85	Current 2005 Design value = 18.9	15.68	CMAQ nitrate modeling							0.4				
86		15.40	Average of all three							0.6				
87		15.74	Average of CMAQ and IMS95							4.9				
88														
89	Kern County Receptor SMAT Reduction RRF	RRF = 2005 Conc./ 2014 Conc.								CMAQ				
90	Design Value 18.9	0.69	linear nitrate projection							3.4				
91	RRF .834	0.74	IMS95 nitrate modeling							1.2				
92	FY Value = DV * RRF	0.74	CMAQ nitrate modeling							0.6				
93	14.015	0.73	Average of all three							0.7				
94	Target	0.742	Average of CMAQ and IMS95							5.9				
95	14.988													
96	0.793	16.84	RRF Species Target											
97														
98										Average CMAQ IMS95				
99	2014 projected Annual Result	15.74	1.017875815	0.44291312	0	0.310035548	2.391794275	0.715603841	1.341079517	7.194081437	1.902789466	0	0.427618476	
100														
101														
102	**County Specific Reduction Target Calculator**													
103	NOx County Specific Target Percentage Reductions	0%												
104	Calculator entry line NOx Tons reduction	0.00												
105	**SJV NOx Total EI in 2014 with adjustments**	289.34												
106	**NOx Tons required, Kern**	0.00												
107	**Kern County NOx EI (J46)**	77.25												
108	**Percent reduction Kern EI**	0%												
109														
110														
111	**Valleywide Reduction Target Calculator**													
112	NOx Regional Target Percentage Reductions	0%												
113	Calculator entry line NOx Tons reduction	0.00												
114	**SJV NOx Total EI in 2014 with adjustments**	289.34												
115	**NOx Valleywide tons required**	0.00												
116	**NOx tons required, Kern**	0.00												
117	**Kern County NOx EI (J46)**	77.25												
118	**Percent reduction Kern**	0%												

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kern - Annual** **2002 species mass 22.97** **2005 Design Value 18.9** **2005 Projection**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
2	Line1 Source Contribution from Analysis	From CMB monthly analysis Feb 2000 to Dec 2000, adding January 2001 episode for chemistry equivalent to annual design value	From CMB	From CMB		From CMB	Estimated portion of mass included in Vegetative Burning =30%		From CMB minus estimated Organic Carbon from other sources	From CMB	From CMB	From CMB, if present	Unaccounted mass from CMB, if any.	
3	LINE 1	23.24	1.47	3.24		0.55	1.42		3.31	10.06	2.62	0.00	0.57	
4	Line 2 Natural and Transport Contribution, see Protocol	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	0, no natural background, transport estimated at 0		0, no natural background, transport estimated at 0	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions. = 20%		Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic. =20% + 10%	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	100% because marine salts are a natural emission	0, no additional background estimate for unexplained mass	
5	LINE 2	3.07	0.1	0.0		0.0	0.3		1.0	1.3	0.3			
6	Line 3 Net for Rollback	Net for Rollback, default percentages adjustable for episode characteristics, applicable to all columns except as indicated.										Removed entirely from rollback, added back to result		
7	LINE 3	20.17	1.3	3.2		0.6	1.1		2.3	8.8	2.3	0.0	0.6	
8	Line 4 Local Contribution PM2.5 Primary Emissions Area of Influence	Source contribution from smallest area of influence, representative of large particle primary source area, includes all PM size emissions in the area - Rolled back against local area of influence emission estimates	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net, non-linear rollback	Mass adjusted influence of 50% PM2.5 of net		Mass adjusted influence of 50% PM2.5 of net	
9	LINE 4	9.53	0.437	1.9		0.303	0.5		0.893	4.645	0.749		0.157	
10	Line 5 Local Contribution Primary and Secondary Area of Influence of PM2.5	Rolled back against local PM2.5 area of influence emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net, non-linear rollback	Mass adjusted influence of 30% PM2.5 of net		Mass adjusted influence of 30% PM2.5 of net	
11	LINE 5	4.80	0.333	0.68		0.109	0.32		0.468	1.947	0.770		0.172	
12	Line 6 Sub regional Contribution Primary and Secondary PM2.5 (Line 5 and Line 6 are the same area for annual evaluation but may differ for episode evaluation)	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net, non-linear rollback	Mass adjusted influence of 15% PM2.5 of net		Mass adjusted influence of 15% PM2.5 of net	
13	LINE 6	2.40	0.166	0.34		0.054	0.16		0.234	0.973	0.385		0.086	
14	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net, non-linear rollback	Mass adjusted influence of 5% PM2.5 of net		Mass adjusted influence of 5% PM2.5 of net	
15	LINE 7	3.44	0.390	0.35		0.083	0.18		0.720	1.187	0.372		0.158	
16	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	Paved roads+ Unpaved roads+ Off road mobile+ Farm operations+ Construction+ Windblown	PM, ROG & CO onroad mobile+ PM, ROG & CO 860 offroad equipment PM, ROG & CO 870 farm equipment CO presumed to add minimal mass		Tire and brake wear as predicted by EMFAC	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM & CO Area, Stationary CO presumed to add minimal mass		PM & CO residential burning PM & CO waste burning and disposal PM cooking PM & CO fires CO presumed to add minimal mass	Total E.I. NOx (+ bacterial soil NOx estimate removed as natural background)	Total SOx	None, natural emission from the ocean, bay and delta waters	Total PM2.5	
17	What Row to use for Lookup Function ---------->		2	5	6	7	8	9	10	14	15	N/A	16	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kern - Annual** **2002 species mass 22.97** **2005 Design Value 18.9** **2005 Projection**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
18	2000 Emissions Inventory	(area of influence emissions inventory, each on a separate line for automated calculations)												**INDEX**
19	PM2.5	L1= 12	2.279	3.292		0.136	3.041		1.920				5.571	12-Ke
20		L2= Kern	5.783	3.988		0.163	6.780		3.356				20.337	Kern
21		Sr= Kern	5.783	3.988		0.163	6.780		3.356				20.337	Kern
22		R= SJV	40.682	12.272		0.746	23.281		30.963				112.405	SJV Total
23	NOx	L1= 12								124.345				12-Ke
24		L2= Kern								173.699				Kern
25		Sr= Kern								173.699				Kern
26		R= SJV								635.349				SJV Total
27	ROG	L1= 12			24.978			30.826						12-Ke
28		L2= Kern			34.022			63.116						Kern
29		Sr= Kern			34.022			63.116						Kern
30		R= SJV			198.230			227.374						SJV Total
31	SOx	L1= 12									3.508			12-Ke
32		L2= Kern									12.018			Kern
33		Sr= Kern									12.018			Kern
34		R= SJV									34.856			SJV Total
35	**2005 Emissions Inventory PM2.5 SIP EI V1.0**													
36	PM2.5 without new controls	L1= 12	2.070	2.939		0.171	2.513		1.607				5.009	12-Ke
37		L2= Kern	5.252	3.560		0.204	5.603		2.480				17.185	Kern
38		Sr= Kern	5.252	3.560		0.204	5.603		2.480				17.185	Kern
39		R= SJV	35.882	11.206		0.926	21.562		22.810				96.129	SJV Total
40	PM2.5 with new controls	L1= 12	2.070	2.939		0.171	2.513		1.607				5.009	12-Ke
41		L2= Kern	5.252	3.560		0.204	5.603		2.480				17.185	Kern
42		Sr= Kern	5.252	3.560		0.204	5.603		2.480				17.185	Kern
43		R= SJV	35.882	11.206		0.926	21.562		22.810				96.129	SJV Total
44	NOx without new controls	L1= 12								115.821				12-Ke
45		L2= Kern								154.600				Kern
46		Sr= Kern								154.600				Kern
47		R= SJV								575.421				SJV Total
48	NOx with new controls	L1= 12								115.821				12-Ke
49		L2= Kern								154.600				Kern
50		Sr= Kern								154.600				Kern
51		R= SJV								575.421				SJV Total
52	ROG without new controls	L1= 12			20.015			31.951						12-Ke
53		L2= Kern			27.421			65.418						Kern
54		Sr= Kern			27.421			65.418						Kern
55		R= SJV			157.574			262.243						SJV Total
56	ROG with new controls	L1= 12			20.015			31.951						12-Ke
57		L2= Kern			27.421			65.418						Kern
58		Sr= Kern			27.421			65.418						Kern
59		R= SJV			157.574			262.243						SJV Total
60	SOx without new controls	L1= 12									1.906			12-Ke
61		L2= Kern									5.622			Kern
62		Sr= Kern									5.622			Kern
63		R= SJV									26.372			SJV Total
64	SOx with new controls	L1= 12									1.906			12-Ke
65		L2= Kern									5.622			Kern
66		Sr= Kern									5.622			Kern
67		R= SJV									26.372			SJV Total

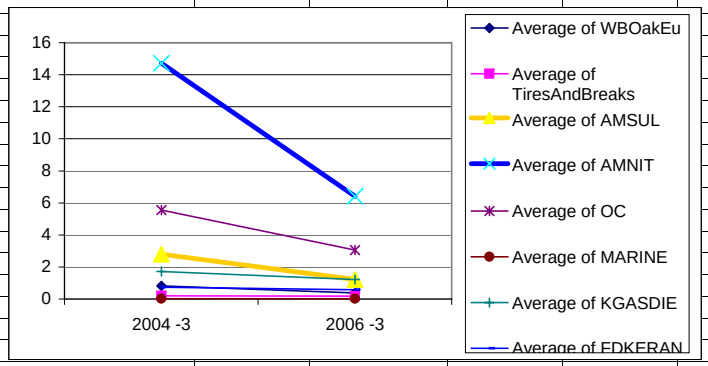
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kern - Annual** **2002 species mass 22.97** **2005 Design Value 18.9** **2005 Projection**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
68	2005 Rollback Projection									IMS95				
69	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2005 L1/2000 L1) * LINE 4	0.4	1.4	0.2	0.4	0.3	0.1	0.7	4.4	0.4		0.1	
70	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2005 L2/2000 L2) * LINE 5	0.3	0.5	0.1	0.1	0.2	0.0	0.3	1.8	0.4		0.1	
71	Sub regional Contribution	=(2005 Sr1/2000 Sr2) * LINE 6	0.2	0.3	0.0	0.1	0.1	0.0	0.2	0.9	0.2		0.1	
72	Regional Contribution	=(2005 R/2000 R) * LINE 7	0.3	0.3	0.0	0.1	0.1	0.0	0.5	1.1	0.3		0.1	
73	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.3		1.0	1.3	0.3	0.0	0.0	
74	2005 projected Annual Result	20.57	1.3	2.5	0.4	0.7	1.1	0.2	2.8	9.6	1.6	0.0	0.5	
75	2005 Rollback Projection with additional controls									IMS95				
76	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2005 L1/2000 L1) * LINE 4	0.4	1.4	0.2	0.4	0.3	0.1	0.7	4.4	0.4		0.1	
77	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2005 L2/2000 L2) * LINE 5	0.3	0.5	0.1	0.1	0.2	0.0	0.3	1.8	0.4		0.1	
78	Sub regional Contribution	=(2005 Sr1/2000 Sr2) * LINE 6	0.2	0.3	0.0	0.1	0.1	0.0	0.2	0.9	0.2		0.1	
79	Regional Contribution	=(2005 R/2000 R) * LINE 7	0.3	0.3	0.0	0.1	0.1	0.0	0.5	1.1	0.3		0.1	
80	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.3		1.0	1.3	0.3	0.0	0.0	
81	2005 projected Annual Result	20.57	1.3	2.5	0.4	0.7	1.1	0.2	2.8	9.6	1.6	0.0	0.5	
82										Linear				
83	2005 projected Annual Result	20.32	linear nitrate projection							4.3				
84	Modeling comparisons	20.57	IMS95 nitrate modeling							1.7				
85	Current 2005 Design value = 18.9	20.54	CMAQ nitrate modeling							0.9				
86		20.48	Average of all three							1.1				
87		20.56	Average of CMAQ and IMS95							8.0				
88														
89										CMAQ				
90										4.4				
91										1.8				
92										0.9				
93										1.1				
94										8.2				
95														
96	**2005 projected Annual Result**	20.56	1.341970863	2.46484212	0.3898106	0.688489813	1.095477067	0.179494373	2.789036382	9.544459328	1.568875841	0	0.493434514	
97	**Used for Start concentration M1 Kern 2005C-2014**	20.55589093		2.85465275	Sum		1.27497144	Sum		CMAQ IMS95 Average				
98				2.85465275			1.274594863							
99	end													

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kern - Annual 2002 species mass 22.97 2005 Design Value 18.9**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
2	Line1 Source Contribution from Analysis	From CMB monthly analysis Feb 2000 to Dec 2000, adding January 2001 episode for chemistry equivalent to annual design value	From CMB	From CMB		From CMB	Estimated portion of mass included in Vegetative Burning =30%		From CMB minus estimated Organic Carbon from other sources	From CMB	From CMB	From CMB, if present	Unaccounted mass from CMB, if any.	
3	LINE 1	23.24	1.47	3.24		0.55	1.42		3.31	10.06	2.62	0.00	0.57	
4	Line 2 Natural and Transport Contribution, see Protocol	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	0, no natural background, transport estimated at 0		0, no natural background, transport estimated at 0	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions. = 20%		Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic. =20% + 10%	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	100% because marine salts are a natural emission	0, no additional background estimate for unexplained mass	
5	LINE 2	3.07	0.1	0.0		0.0	0.3		1.0	1.3	0.3			
6	Line 3 Net for Rollback	Net for Rollback, default percentages adjustable for episode characteristics, applicable to all columns except as indicated.										Removed entirely from rollback, added back to result		
7	LINE 3	20.17	1.3	3.2		0.6	1.1		2.3	8.8	2.3	0.0	0.6	
8	Line 4 Local Contribution PM2.5 Primary Emissions Area of Influence	Source contribution from smallest area of influence, representative of large particle primary source area, includes all PM size emissions in the area - Rolled back against local area of influence emission estimates	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net, non-linear rollback	Mass adjusted influence of 50% PM2.5 of net		Mass adjusted influence of 50% PM2.5 of net	
9	LINE 4	9.53	0.437	1.9		0.303	0.5		0.893	4.645	0.749		0.157	
10	Line 5 Local Contribution Primary and Secondary Area of Influence of PM2.5	Rolled back against local PM2.5 area of influence emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net, non-linear rollback	Mass adjusted influence of 30% PM2.5 of net		Mass adjusted influence of 30% PM2.5 of net	
11	LINE 5	4.80	0.333	0.68		0.109	0.32		0.468	1.947	0.770		0.172	
12	Line 6 Sub regional Contribution Primary and Secondary PM2.5 (Line 5 and Line 6 are the same area for annual evaluation but may differ for episode evaluation)	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net, non-linear rollback	Mass adjusted influence of 15% PM2.5 of net		Mass adjusted influence of 15% PM2.5 of net	
13	LINE 6	2.40	0.166	0.34		0.054	0.16		0.234	0.973	0.385		0.086	
14	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net, non-linear rollback	Mass adjusted influence of 5% PM2.5 of net		Mass adjusted influence of 5% PM2.5 of net	
15	LINE 7	3.44	0.390	0.35		0.083	0.18		0.720	1.187	0.372		0.158	
16	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	Paved roads+ Unpaved roads+ Off road mobile+ Farm operations+ Construction+ Windblown	PM, ROG & CO onroad mobile+ PM, ROG & CO 860 offroad equipment PM, ROG & CO 870 farm equipment CO presumed to add minimal mass		Tire and brake wear as predicted by EMFAC	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM & CO Area, Stationary CO presumed to add minimal mass		PM & CO residential burning PM & CO waste burning and disposal PM cooking PM & CO fires CO presumed to add minimal mass	Total E.I. NOx (+ bacterial soil NOx estimate removed as natural background)	Total SOx	None, natural emission from the ocean, bay and delta waters	Total PM2.5	
17	What Row to use for Lookup Function ---------->		2	5	6	7	8	9	10	14	15	N/A	16	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kern - Annual 2002 species mass 22.97 2005 Design Value 18.9**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
18	2000 Emissions Inventory	(area of influence emissions inventory, each on a separate line for automated calculations)												**INDEX**
19	PM2.5	L1= 12	2.279	3.292		0.136	3.041		1.920				5.571	12-Ke
20		L2= Kern	5.783	3.988		0.163	6.780		3.356				20.337	Kern
21		Sr= Kern	5.783	3.988		0.163	6.780		3.356				20.337	Kern
22		R= SJV	40.682	12.272		0.746	23.281		30.963				112.405	SJV Total
23	NOx	L1= 12								124.345				12-Ke
24		L2= Kern								173.699				Kern
25		Sr= Kern								173.699				Kern
26		R= SJV								635.349				SJV Total
27	ROG	L1= 12			24.978			30.826						12-Ke
28		L2= Kern			34.022			63.116						Kern
29		Sr= Kern			34.022			63.116						Kern
30		R= SJV			198.230			227.374						SJV Total
31	SOx	L1= 12									3.508			12-Ke
32		L2= Kern									12.018			Kern
33		Sr= Kern									12.018			Kern
34		R= SJV									34.856			SJV Total
35	2014 Emissions Inventory PM2.5 SIP EI V1.0													
36	PM2.5 without new controls	L1= 12	2.188	0.679		0.201	2.095		0.941				2.867	12-Ke
37		L2= Kern	5.551	0.822		0.241	4.671		1.344				13.078	Kern
38		Sr= Kern	5.551	0.822		0.241	4.671		1.344				13.078	Kern
39		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
40	PM2.5 with new controls	L1= 12	2.188	0.679		0.201	2.095		0.941				2.867	12-Ke
41		L2= Kern	5.551	0.822		0.241	4.671		1.344				13.078	Kern
42		Sr= Kern	5.551	0.822		0.241	4.671		1.344				13.078	Kern
43		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
44	NOx without new controls	L1= 12								78.683				12-Ke
45		L2= Kern								77.249				Kern
46		Sr= Kern								77.249				Kern
47		R= SJV								289.340				SJV Total
48	NOx with new controls	L1= 12								78.683				12-Ke
49		L2= Kern								77.249				Kern
50		Sr= Kern								77.249				Kern
51		R= SJV								289.340				SJV Total
52	ROG without new controls	L1= 12			13.142			28.703						12-Ke
53		L2= Kern			18.102			58.768						Kern
54		Sr= Kern			18.102			58.768						Kern
55		R= SJV			104.447			258.527						SJV Total
56	ROG with new controls	L1= 12			13.142			28.703						12-Ke
57		L2= Kern			18.102			58.768						Kern
58		Sr= Kern			18.102			58.768						Kern
59		R= SJV			104.447			258.527						SJV Total
60	SOx without new controls	L1= 12									1.264			12-Ke
61		L2= Kern									4.263			Kern
62		Sr= Kern									4.263			Kern
63		R= SJV									23.925			SJV Total
64	SOx with new controls	L1= 12									1.264			12-Ke
65		L2= Kern									4.263			Kern
66		Sr= Kern									4.263			Kern
67		R= SJV									23.925			SJV Total

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kern - Annual 2002 species mass 22.97 2005 Design Value 18.9**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
68	2014 Rollback Projection									IMS95				
69	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/1999 L1) * LINE 4	0.4	0.3	0.1	0.4	0.3	0.1	0.4	3.5	0.3		0.1	
70	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/1999 L2) * LINE 5	0.3	0.1	0.1	0.2	0.2	0.0	0.2	1.2	0.3		0.1	
71	Sub regional Contribution	=(2014 Sr1/1999 Sr2) * LINE 6	0.2	0.1	0.0	0.1	0.1	0.0	0.1	0.6	0.1		0.1	
72	Regional Contribution	=(2014 R/1999 R) * LINE 7	0.4	0.1	0.0	0.1	0.1	0.0	0.3	0.8	0.3		0.1	
73	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.3		1.0	1.3	0.3	0.0	0.0	
74	2014 projected Annual Result	15.21	1.4	0.6	0.3	0.8	1.0	0.2	2.0	7.4	1.3	0.0	0.4	
75	2014 Rollback Projection with additional controls									IMS95				
76	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/1999 L1) * LINE 4	0.4	0.3	0.1	0.4	0.3	0.1	0.4	3.5	0.3		0.1	
77	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/1999 L2) * LINE 5	0.3	0.1	0.1	0.2	0.2	0.0	0.2	1.2	0.3		0.1	
78	Sub regional Contribution	=(2014 Sr1/1999 Sr2) * LINE 6	0.2	0.1	0.0	0.1	0.1	0.0	0.1	0.6	0.1		0.1	
79	Regional Contribution	=(2014 R/1999 R) * LINE 7	0.4	0.1	0.0	0.1	0.1	0.0	0.3	0.8	0.3		0.1	
80	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.3		1.0	1.3	0.3	0.0	0.0	
81	2014 projected Annual Result	15.21	1.4	0.6	0.3	0.8	1.0	0.2	2.0	7.4	1.3	0.0	0.4	
82										Linear				
83	2014 projected Annual Result	13.89	linear nitrate projection							2.9				
84	Modeling comparisons	15.21	IMS95 nitrate modeling							0.9				
85	Current 2005 Design value = 18.9	15.07	CMAQ nitrate modeling							0.4				
86		14.72	Average of all three							0.5				
87		15.14	Average of CMAQ and IMS95							4.8				
88														
89										CMAQ				
90										3.4				
91										1.2				
92										0.6				
93										0.7				
94										6.0				
95														
96	2014 Final Species Mass	15.14	1.408583919	0.571941	0.2566504	0.813772045	0.953175339	0.164000304	2.009042805	7.34	1.275094145	0	0.351669525	
97										7.338133723				

	A	B	C	D	E	F	G	H	I	J	K	L	M
1		**BAC CMB**											
2	Quarter	(All)											
3	Month	(All)											
4			**2005 Mass w/o March**										
5		Year											
6	Data	2004	2005	2006	Grand Total								
7	Average of WBOakEu	2.100477377	1.411958462	2.175588961	1.908506256								
8	Average of TiresAndBreaks	0.211627705	0.287884923	0.266391169	0.256817389								
9	Average of AMSUL	2.418782131	2.359212923	2.265211299	2.341457241								
10	Average of AMNIT	9.811919836	8.764284154	8.938476494	9.145163892								
11	Average of OC	3.923866393	4.302056308	4.032186104	4.086048473								
12	Average of MARINE	0.129047213	0.033979385	0.086542078	0.082484138								
13	Average of KGASDIE	1.850694918	1.728210769	1.995594805	1.866437882								
14	Average of FDKERAN	0.752282951	0.904592615	1.146152468	0.950450837								
15	Total				20.63736611		**Mass correction for missing March data for 2005**						
16								2004-2006	Substitution for 3/05				
17								w/o March 05	(1/36 * avg(04-06 mar)				
18	**March 04 & 06 substitution**	2004 -3	2006 -3	2004,2006 - 3				35 month average	Add mass est 3/05	Sum	Value		
19	Average of WBOakEu	0.8136975	0.38116	0.647336923			Average of WBOakEu	1.908506256	0.017981581	1.926487837			
20	Average of TiresAndBreaks	0.20432875	0.186696	0.197546923			Average of TiresAndBreaks	0.256817389	0.005487415	0.262304804			
21	Average of AMSUL	2.80572375	1.225688	2.198017692			Average of AMSUL	2.341457241	0.061056047	2.402513288			
22	Average of AMNIT	14.71202	6.410362	11.51907462			Average of AMNIT	9.145163892	0.319974295	9.465138186			
23	Average of OC	5.562915	3.052842	4.597502308			Average of OC	4.086048473	0.127708397	4.21375687	4.21375687		
24	Average of MARINE	0.02267375	0.010174	0.017866154			Average of MARINE	0.082484138	0.000496282	0.08298042			
25	Average of KGASDIE	1.7175375	1.215386	1.524402308			Average of KGASDIE	1.866437882	0.042344509	1.90878239	1.90878239		
26	Average of FDKERAN	0.73598625	0.580438	0.67616			Average of FDKERAN	0.950450837	0.018782222	0.96923306			
27													
28							Sum	20.63736611		21.23119686			
29													
30													
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													
45													
46	**BAC CMB 2005 data. No data for Month 3, March**												
47	Quarter	(All)											
48	Year	2005											
49	2005 -no March												
50		Month											
51	Data	1	2	4	5	6	7	8	9	10	11	12	Grand Total
52	Average of WBOakEu	2.04554	2.4583875	0.643076667	0.745181667	0.356264	0.849552857	0.59517375	0.423471111	0.374788333	2.394024286	5.342258333	1.411958462
53	Average of TiresAndBreaks	0.280255	0.284625	0.16039	0.233961667	0.2087	0.419944286	0.27280375	0.234006667	0.24556	0.367121429	0.375541667	0.287884923
54	Average of AMSUL	3.571505	2.681435	1.952356667	2.237368333	2.650764	3.093655714	2.0823925	1.639588889	2.105093333	1.876624286	2.827336667	2.359212923
55	Average of AMNIT	13.573425	24.9596325	6.68975	2.589643333	1.68054	1.508511429	1.3370875	1.893835556	7.110561667	20.80002	24.16202	8.764284154
56	Average of OC	3.96809	6.686055	4.20337	3.88221	4.375404	4.796834286	4.42995625	4.182643333	4.56702	3.790831429	3.106245	4.302056308
57	Average of MARINE	0.0723825	0.0679075	0.011273333	0.044126667	0.005954	0	0	0	0	0.05889	0.151153333	0.033979385
58	Average of KGASDIE	1.31489	2.4463175	1.110513333	0.584528333	1.033218	1.323787143	1.399585	1.427682222	1.71045	2.94177	3.519441667	1.728210769
59	Average of FDKERAN	0.37313	0.1505125	0.5335	0.526211667	1.45597	1.039048571	1.3359125	1.389094444	1.076565	0.813642857	0.341491667	0.904592615



	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Fresno - Annual calculated 2005 species 2005 Design value = 17.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
2	Line1 Source Contribution from Analysis	From Fresno 2000-2005 Projection of PM2.5 speciation for 2000-2001	Fresno 2000-2005 Projection	Fresno 2000-2005 Projection		Fresno 2000-2005 Projection	Fresno 2000-2005 Projection from estimated portion of OC mass included in Vegetative Burning =30%		Fresno 2000-2005 Projection of Veg. Burning minus estimated Organic Carbon from other sources	Fresno 2000-2005 Projection	Fresno 2000-2005 Projection	Fresno 2000-2005 Projection	Fresno 2000-2005 Projection	
3	2005 projected Annual Result	20.76	0.85	3.71		0.43	2.01		4.04	7.07	2.16		0.50	
4	Line 2 Natural and Transport Contribution, see Protocol	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	0, no natural background, transport estimated at 0		0, no natural background, transport estimated at 0	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions. = 20%		Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic. =20% + 10%	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	100% because marine salts are a natural emission	0, no additional background estimate for unexplained mass	
5	LINE 2	2.90	0.1	0.0		0.0	0.4		1.2	0.9	0.3			
6	Line 3 Net for Rollback	Net for Rollback, default percentages adjustable for episode characteristics, applicable to all columns except as indicated.										Removed entirely from rollback, added back to result		
7	LINE 3	17.86	0.8	3.7		0.4	1.6		2.8	6.2	1.9	0.0	0.5	
8	Line 4 Local Contribution PM2.5 Primary Emissions Area of Influence	Source contribution from smallest area of influence, representative of large particle primary source area, includes all PM size emissions in the area - Rolled back against local area of influence emission estimates	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net, non-linear rollback	Mass adjusted influence of 50% PM2.5 of net		Mass adjusted influence of 50% PM2.5 of net	
9	LINE 4	7.04	0.209	1.7		0.203	0.6		0.881	2.559	0.854		0.106	
10	Line 5 Local Contribution Primary and Secondary Area of Influence of PM2.5	Rolled back against local PM2.5 area of influence emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net, non-linear rollback	Mass adjusted influence of 30% PM2.5 of net		Mass adjusted influence of 30% PM2.5 of net	
11	LINE 5	3.74	0.160	0.73		0.086	0.32		0.678	1.271	0.419		0.068	
12	Line 6 Sub regional Contribution Primary and Secondary PM2.5 (Line 5 and Line 6 are the same area for annual evaluation but may differ for episode evaluation)	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net, non-linear rollback	Mass adjusted influence of 15% PM2.5 of net		Mass adjusted influence of 15% PM2.5 of net	
13	LINE 6	3.33	0.192	0.53		0.059	0.31		0.754	0.997	0.336		0.161	
14	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net, non-linear rollback	Mass adjusted influence of 5% PM2.5 of net		Mass adjusted influence of 5% PM2.5 of net	
15	LINE 7	3.75	0.202	0.78		0.077	0.41		0.514	1.323	0.271		0.166	17.86
16	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	Paved roads+ Unpaved roads+ Off road mobile+ Farm operations+ Construction+ Windblown	PM, ROG & CO onroad mobile+ PM, ROG & CO 860 offroad equipment PM, ROG & CO 870 farm equipment CO presumed to add minimal mass		Tire and brake wear as predicted by EMFAC	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM & CO Area, Stationary CO presumed to add minimal mass		PM & CO residential burning PM & CO waste burning and disposal PM cooking PM & CO fires CO presumed to add minimal mass	Total E.I. NOx (+ bacterial soil NOx estimate removed as natural background)	Total SOx	None, natural emission from the ocean, bay and delta waters	Total PM2.5	
17	What Row to use for Lookup Function ---------->		2	5	6	7	8	9	10	14	15	N/A	16	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Fresno - Annual calculated 2005 species 2005 Design value = 17.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
18	2005 Emissions Inventory	(area of influence emissions inventory, each on a separate line for automated calculations)												**INDEX**
19	PM2.5	L1= Area 3	1.860	1.190		0.123	1.478		1.956				3.051	3-Fr
20		L2= Areas 3,4	4.756	1.746		0.174	2.782		5.021				6.502	Sum 3,4
21		Sr= Fresno, Madera	11.369	2.516		0.237	5.304		11.157				31.061	Fresno + Madera
22		R= SJV	35.882	11.206		0.926	21.562		22.810				96.129	SJV Total
23	NOx	L1= Area 3								55.645				3-Fr
24		L2= Areas 3,4								92.111				Sum 3,4
25		Sr= Fresno, Madera								144.581				Fresno + Madera
26		R= SJV								575.421				SJV Total
27	ROG	L1= Area 3			16.047			22.020						3-Fr
28		L2= Areas 3,4			24.121			45.182						Sum 3,4
29		Sr= Fresno, Madera			43.515			73.459						Fresno + Madera
30		R= SJV			157.574			262.243						SJV Total
31	SOx	L1= Area 3									4.156			3-Fr
32		L2= Areas 3,4									6.795			Sum 3,4
33		Sr= Fresno, Madera									10.896			Fresno + Madera
34		R= SJV									26.372			SJV Total
35	2014 Emissions Inventory PM2.5 SIP EI V1.0													
36	PM2.5 without new controls	L1= Area 3	1.882	0.278		0.149	1.068		1.193				2.160	3-Fr
37		L2= Areas 3,4	4.885	0.426		0.217	2.110		2.671				5.310	Sum 3,4
38		Sr= Fresno, Madera	11.672	0.615		0.298	4.003		6.342				23.349	Fresno + Madera
39		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
40	PM2.5 with new controls	L1= Area 3	1.882	0.278		0.149	1.068		1.193				2.160	3-Fr
41		L2= Areas 3,4	4.885	0.426		0.217	2.110		2.671				5.310	Sum 3,4
42		Sr= Fresno, Madera	11.672	0.615		0.298	4.003		6.342				23.349	Fresno + Madera
43		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
44	NOx without new controls	L1= Area 3								36.121				3-Fr
45		L2= Areas 3,4								63.236				Sum 3,4
46		Sr= Fresno, Madera								73.878				Fresno + Madera
47		R= SJV								289.340				SJV Total
48	NOx with new controls	L1= Area 3								36.121				3-Fr
49		L2= Areas 3,4								63.236				Sum 3,4
50		Sr= Fresno, Madera								73.878				Fresno + Madera
51		R= SJV								289.340				SJV Total
52	ROG without new controls	L1= Area 3			10.391			21.564						3-Fr
53		L2= Areas 3,4			15.979			44.378						Sum 3,4
54		Sr= Fresno, Madera			29.774			72.358						Fresno + Madera
55		R= SJV			104.447			258.527						SJV Total
56	ROG with new controls	L1= Area 3			10.391			21.564						3-Fr
57		L2= Areas 3,4			15.979			44.378						Sum 3,4
58		Sr= Fresno, Madera			29.774			72.358						Fresno + Madera
59		R= SJV			104.447			258.527						SJV Total
60	SOx without new controls	L1= Area 3									4.311			3-Fr
61		L2= Areas 3,4									7.046			Sum 3,4
62		Sr= Fresno, Madera									10.877			Fresno + Madera
63		R= SJV									23.925			SJV Total
64	SOx with new controls	L1= Area 3									4.311			3-Fr
65		L2= Areas 3,4									7.046			Sum 3,4
66		Sr= Fresno, Madera									10.877			Fresno + Madera
67		R= SJV									23.925			SJV Total

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Fresno - Annual calculated 2005 species 2005 Design value = 17.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
68	2014 Rollback Projection									IMS95				
69	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2005 L1) * LINE 4	0.2	0.3	0.2	0.2	0.3	0.1	0.5	2.0	0.9		0.1	
70	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2005 L2) * LINE 5	0.2	0.2	0.1	0.1	0.2	0.0	0.4	1.0	0.4		0.1	
71	Sub regional Contribution	=(2014 Sr1/2005 Sr2) * LINE 6	0.2	0.1	0.1	0.1	0.2	0.0	0.4	0.7	0.3		0.1	
72	Regional Contribution	=(2014 R/2005 R) * LINE 7	0.2	0.2	0.1	0.1	0.3	0.1	0.3	0.9	0.2		0.1	
73	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.4		1.2	0.9	0.3	0.0	0.0	
74	2014 projected Annual Result	15.01	0.9	0.8	0.4	0.5	1.4	0.2	2.8	5.4	2.2	0.0	0.4	
75	2014 Rollback Projection with additional controls									IMS95				
76	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2005 L1) * LINE 4	0.2	0.3	0.2	0.2	0.3	0.1	0.5	2.0	0.9		0.1	
77	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2005 L2) * LINE 5	0.2	0.2	0.1	0.1	0.2	0.0	0.4	1.0	0.4		0.1	
78	Sub regional Contribution	=(2014 Sr1/2005 Sr2) * LINE 6	0.2	0.1	0.1	0.1	0.2	0.0	0.4	0.7	0.3		0.1	
79	Regional Contribution	=(2014 R/2005 R) * LINE 7	0.2	0.2	0.1	0.1	0.3	0.1	0.3	0.9	0.2		0.1	
80	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.4		1.2	0.9	0.3	0.0	0.0	
81	2014 projected Annual Result	15.01	0.9	0.8	0.4	0.5	1.4	0.2	2.8	5.4	2.2	0.0	0.4	
82										Linear				
83	2014 projected Annual Result	14.19	linear nitrate projection							1.7				
84	Modeling comparisons	15.01	IMS95 nitrate modeling							0.9				
85	Current 2005 Design value = 17.2	14.92	CMAQ nitrate modeling							0.5				
86		14.71	Average of all three							0.7				
87		14.96	Average of CMAQ and IMS95							3.7				
88														
89	Fresno County Receptor SMAT Reduction RRF	RRF = 2005 calculated Conc./ 2014 Conc.								CMAQ				
90	Design Value 17.2	0.68	linear nitrate projection							1.9				
91	RRF .843	0.72	IMS95 nitrate modeling							1.0				
92	FY Value = DV * RRF	0.72	CMAQ nitrate modeling							0.7				
93	12.397	0.71	Average of all three							0.9				
94	Target	0.721	Average of CMAQ and IMS95							4.4				
95	12.397													
96	0.721	14.96	RRF Species Target											
97														
98										Average CMAQ IMS95				
99	2014 projected Annual Result	14.96	0.870101205	0.75203474	0.3665996	0.521078616	1.429296889	0.237026437	2.826468615	5.397713218	2.181688492	0	0.381424479	
100														
101														
102	**County Specific Reduction Target Calculator**													
103	NOx County Specific Target Percentage Reductions	0%												
104	Calculator entry line NOx Tons reduction	0.00												
105	**SJV NOx Total EI in 2014 with adjustments**	289.34												
106	**NOx Tons required, Fresno-Madera**	0.00												
107	**Fresno-Madera County NOx EI (J46)**	73.88												
108	**Percent reduction Fresno-Madera EI**	0%												
109														
110														
111	**Valleywide Reduction Target Calculator**													
112	NOx Regional Target Percentage Reductions	0%												
113	Calculator entry line NOx Tons reduction	0.00												
114	**SJV NOx Total EI in 2014 with adjustments**	289.34												
115	**NOx Valleywide tons required**	0.00												
116	**NOx tons required, Fresno-Madera**	0.00												
117	**Fresno-Madera County NOx EI (J46)**	73.88												
118	**Percent reduction Fresno-Madera EI**	0%												

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Fresno - Annual** **2004-2005 species mass 17.91** **2005 Design value 17.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust Profile Direct only, no SOA, VOC split removed**		**Tire and Brake Wear**	**Organic Carbon Industrial Primary PM2.5 MV and Ind. SOA VOC artifact Secondary Percentage adjusted due to MV profile**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
2	Line1 Source Contribution from Analysis	From ARB 2004-2006 CMB monthly analysis	From CMB	From CMB		From CMB	From CMB - 0.6 artifact		From CMB	From CMB	From CMB	From CMB, if present	Unaccounted mass from CMB, if any.	
3	LINE 1	18.64	0.66	1.79		0.28	3.50		2.51	7.41	1.80	0.09	0.60	
4	Line 2 Natural and Transport Contribution, see Protocol	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	0, no natural background, transport estimated at 0		0, no natural background, transport estimated at 0	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions. = 20%		Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic. =20% + 10%	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	100% because marine salts are a natural emission	0, no additional background estimate for unexplained mass	
5	LINE 2	2.72	0.1	0.0		0.0	0.7		0.8	1.0	0.2			
6	Line 3 Net for Rollback	Net for Rollback, default percentages adjustable for episode characteristics, applicable to all columns except as indicated.										Removed entirely from rollback, added back to result		
7	LINE 3	15.92	0.6	1.8		0.3	2.8		1.8	6.4	1.6	0.1	0.6	
8	Line 4 Local Contribution PM2.5 Primary Emissions Area of Influence	Source contribution from smallest area of influence, representative of large particle primary source area, includes all PM size emissions in the area - Rolled back against local area of influence emission estimates	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net, non-linear rollback	Mass adjusted influence of 50% PM2.5 of net		Mass adjusted influence of 50% PM2.5 of net	
9	LINE 4	6.15	0.163	0.8		0.133	1.0		0.548	2.681	0.710		0.127	
10	Line 5 Local Contribution Primary and Secondary Area of Influence of PM2.5	Rolled back against local PM2.5 area of influence emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net, non-linear rollback	Mass adjusted influence of 30% PM2.5 of net		Mass adjusted influence of 30% PM2.5 of net	
11	LINE 5	3.28	0.125	0.35		0.057	0.56		0.422	1.331	0.348		0.081	
12	Line 6 Sub regional Contribution Primary and Secondary PM2.5 (Line 5 and Line 6 are the same area for annual evaluation but may differ for episode evaluation)	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net, non-linear rollback	Mass adjusted influence of 15% PM2.5 of net		Mass adjusted influence of 15% PM2.5 of net	
13	LINE 6	2.96	0.149	0.25		0.039	0.53		0.469	1.045	0.279		0.193	
14	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net, non-linear rollback	Mass adjusted influence of 5% PM2.5 of net		Mass adjusted influence of 5% PM2.5 of net	
15	LINE 7	3.44	0.157	0.38		0.050	0.72		0.319	1.386	0.225		0.199	
16	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	Paved roads+ Unpaved roads+ Off road mobile+ Farm operations+ Construction+ Windblown	PM, ROG & CO onroad mobile+ PM, ROG & CO 860 offroad equipment PM, ROG & CO 870 farm equipment CO presumed to add minimal mass		Tire and brake wear as predicted by EMFAC	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM & CO Area, Stationary CO presumed to add minimal mass		PM & CO residential burning PM & CO waste burning and disposal PM cooking PM & CO fires CO presumed to add minimal mass	Total E.I. NOx (+ bacterial soil NOx estimate removed as natural background)	Total SOx	None, natural emission from the ocean, bay and delta waters	Total PM2.5	
17	What Row to use for Lookup Function ---------->		2	5	6	7	8	9	10	14	15	N/A	16	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Fresno - Annual** **2004-2005 species mass 17.91** **2005 Design value 17.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust Profile Direct only, no SOA, VOC split removed**		**Tire and Brake Wear**	**Organic Carbon Industrial Primary PM2.5 MV and Ind. SOA VOC artifact Secondary Percentage adjusted due to MV profile**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
18	2005 Emissions Inventory	(area of influence emissions inventory, each on a separate line for automated calculations)												**INDEX**
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21		Sr= Fresno, Madera	11.369	2.516		0.237	5.304		11.157				31.061	Fresno + Madera
22		R= SJV	35.882	11.206		0.926	21.562		22.810				96.129	SJV Total
23	NOx	L1= Area 3								55.645				3-Fr
24		L2= Areas 3,4								92.111				Sum 3,4
25		Sr= Fresno, Madera								144.581				Fresno + Madera
26		R= SJV								575.421				SJV Total
27	ROG	L1= Area 3			16.047			38.067						3-Fr
28		L2= Areas 3,4			24.121			69.302						Sum 3,4
29		Sr= Fresno, Madera			43.515			116.974						Fresno + Madera
30		R= SJV			157.574			419.817						SJV Total
31	SOx	L1= Area 3									4.156			3-Fr
32		L2= Areas 3,4									6.795			Sum 3,4
33		Sr= Fresno, Madera									10.896			Fresno + Madera
34		R= SJV									26.372			SJV Total
35	2014 Emissions Inventory PM2.5 SIP EI V1.0													
36	PM2.5 without new controls	L1= Area 3	1.882	0.278		0.149	1.068		1.193				2.160	3-Fr
37		L2= Areas 3,4	4.885	0.426		0.217	2.110		2.671				5.310	Sum 3,4
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45		L2= Areas 3,4								63.236				Sum 3,4
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47		R= SJV								289.340				SJV Total
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51		R= SJV								289.340				SJV Total
52	ROG without new controls	L1= Area 3			10.391			31.955						3-Fr
53		L2= Areas 3,4			15.979			60.357						Sum 3,4
54		Sr= Fresno, Madera			29.774			102.132						Fresno + Madera
55		R= SJV			104.447			362.974						SJV Total
56	ROG with new controls	L1= Area 3			10.391			31.955						3-Fr
57		L2= Areas 3,4			15.979			60.357						Sum 3,4
58		Sr= Fresno, Madera			29.774			102.132						Fresno + Madera
59		R= SJV			104.447			362.974						SJV Total
60	SOx without new controls	L1= Area 3									4.311			3-Fr
61		L2= Areas 3,4									7.046			Sum 3,4
62		Sr= Fresno, Madera									10.877			Fresno + Madera
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65		L2= Areas 3,4									7.046			Sum 3,4
66		Sr= Fresno, Madera									10.877			Fresno + Madera
67		R= SJV									23.925			SJV Total

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Fresno - Annual** **2004-2005 species mass 17.91** **2005 Design value 17.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust Profile Direct only, no SOA, VOC split removed**		**Tire and Brake Wear**	**Organic Carbon Industrial Primary PM2.5 MV and Ind. SOA VOC artifact Secondary Percentage adjusted due to MV profile**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
68	2014 Rollback Projection									IMS95				
69	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2005 L1) * LINE 4	0.2	0.2	0.0	0.2	0.5	0.2	0.3	2.1	0.7		0.1	
70	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2005 L2) * LINE 5	0.1	0.1	0.0	0.1	0.3	0.1	0.2	1.1	0.4		0.1	
71	Sub regional Contribution	=(2014 Sr1/2005 Sr2) * LINE 6	0.2	0.1	0.0	0.0	0.3	0.1	0.3	0.7	0.3		0.1	
72	Regional Contribution	=(2014 R/2005 R) * LINE 7	0.2	0.1	0.0	0.1	0.4	0.2	0.2	0.9	0.2		0.2	
73	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.7		0.8	1.0	0.2	0.0	0.0	
74	2014 projected Annual Result	14.07	0.7	0.4	0.0	0.3	2.2	0.7	1.8	5.7	1.8	0.0	0.5	
75	2014 Rollback Projection with additional controls									IMS95				
76	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2005 L1) * LINE 4	0.2	0.2	0.0	0.2	0.5	0.2	0.3	2.1	0.7		0.1	
77	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2005 L2) * LINE 5	0.1	0.1	0.0	0.1	0.3	0.1	0.2	1.1	0.4		0.1	
78	Sub regional Contribution	=(2014 Sr1/2005 Sr2) * LINE 6	0.2	0.1	0.0	0.0	0.3	0.1	0.3	0.7	0.3		0.1	
79	Regional Contribution	=(2014 R/2005 R) * LINE 7	0.2	0.1	0.0	0.1	0.4	0.2	0.2	0.9	0.2		0.2	
80	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.7		0.8	1.0	0.2	0.0	0.0	
81	2014 projected Annual Result	14.07	0.7	0.4	0.0	0.3	2.2	0.7	1.8	5.7	1.8	0.0	0.5	
82										Linear				
83	2014 projected Annual Result	13.22	linear nitrate projection							1.7				
84	Modeling comparisons	14.07	IMS95 nitrate modeling							0.9				
85	Current 2005 Design value = 17.2	13.98	CMAQ nitrate modeling							0.5				
86		13.76	Average of all three							0.7				
87		14.02	Average of CMAQ and IMS95							3.9				
88														
89	Fresno County Receptor SMAT Reduction RRF	RRF = 2005 calculated Conc./ 2014 Conc.								CMAQ				
90	Design Value 17.2	0.71	linear nitrate projection							2.0				
91	RRF .851	0.76	IMS95 nitrate modeling							1.0				
92	FY Value = DV * RRF	0.75	CMAQ nitrate modeling							0.7				
93	12.944	0.74	Average of all three							0.9				
94	Target	0.753	Average of CMAQ and IMS95							4.6				
95	12.944													
96	0.753	14.02	RRF Species Target											
97														
98										Average CMAQ IMS95				
99	2014 projected Annual Result	14.02	0.677733296	0.42674612	0	0.341865706	2.174421662	0.721670917	1.757676676	5.653963614	1.813189672	0	0.456680577	
100														
101														
102	**County Specific Reduction Target Calculator**													
103	NOx County Specific Target Percentage Reductions	0%												
104	Calculator entry line NOx Tons reduction	0.00												
105	**SJV NOx Total EI in 2014 with adjustments**	289.34												
106	**NOx Tons required, Fresno-Madera**	0.00												
107	**Fresno-Madera County NOx EI (J46)**	73.88												
108	**Percent reduction Fresno-Madera EI**	0%												
109														
110														
111	**Valleywide Reduction Target Calculator**													
112	NOx Regional Target Percentage Reductions	0%												
113	Calculator entry line NOx Tons reduction	0.00												
114	**SJV NOx Total EI in 2014 with adjustments**	289.34												
115	**NOx Valleywide tons required**	0.00												
116	**NOx tons required, Fresno-Madera**	0.00												
117	**Fresno-Madera County NOx EI (J46)**	73.88												
118	**Percent reduction Fresno-Madera EI**	0%												

	A	B	C	D E	F	G H	I	J	K	L	M	N
1	**Fresno - Annual** **2000-2001 species mass 21.5** **2005 Design value 17.2** **2005 Projection**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**	**Tire and Brake Wear**	**Organic Carbon**	**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
2	Line1 Source Contribution from Analysis	From CMB monthly analysis Feb 2000 to Dec 2000, adding January 2001 episode for chemistry equivalent to annual design value	From CMB	From CMB	From CMB	Estimated portion of mass included in Vegetative Burning =30%	From CMB minus estimated Organic Carbon from other sources	From CMB	From CMB	From CMB, if present	Unaccounted mass from CMB, if any.	
3	LINE 1	22.45	0.95	4.14	0.35	2.03	4.73	7.48	2.20	0.00	0.58	
4	Line 2 Natural and Transport Contribution, see Protocol	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	0, no natural background, transport estimated at 0	0, no natural background, transport estimated at 0	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions. = 20%	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic. =20% + 10%	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	100% because marine salts are a natural emission	0, no additional background estimate for unexplained mass	
5	LINE 2	3.18	0.1	0.0	0.0	0.4	1.4	1.0	0.3			
6	Line 3 Net for Rollback	Net for Rollback, default percentages adjustable for episode characteristics, applicable to all columns except as indicated.								Removed entirely from rollback, added back to result		
7	LINE 3	19.27	0.9	4.1	0.4	1.6	3.3	6.5	1.9	0.0	0.6	
8	Line 4 Local Contribution PM2.5 Primary Emissions Area of Influence	Source contribution from smallest area of influence, representative of large particle primary source area, includes all PM size emissions in the area - Rolled back against local area of influence emission estimates	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net, non-linear rollback	Mass adjusted influence of 50% PM2.5 of net		Mass adjusted influence of 50% PM2.5 of net	
9	LINE 4	7.37	0.234	1.9	0.169	0.6	0.892	2.703	0.824		0.118	
10	Line 5 Local Contribution Primary and Secondary Area of Influence of PM2.5	Rolled back against local PM2.5 area of influence emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net, non-linear rollback	Mass adjusted influence of 30% PM2.5 of net		Mass adjusted influence of 30% PM2.5 of net	
11	LINE 5	4.01	0.179	0.82	0.071	0.31	0.815	1.333	0.406		0.076	
12	Line 6 Sub regional Contribution Primary and Secondary PM2.5 (Line 5 and Line 6 are the same area for annual evaluation but may differ for episode evaluation)	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net, non-linear rollback	Mass adjusted influence of 15% PM2.5 of net		Mass adjusted influence of 15% PM2.5 of net	
13	LINE 6	3.69	0.214	0.59	0.048	0.30	0.954	1.068	0.326		0.192	
14	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net, non-linear rollback	Mass adjusted influence of 5% PM2.5 of net		Mass adjusted influence of 5% PM2.5 of net	
15	LINE 7	4.20	0.226	0.88	0.062	0.43	0.646	1.404	0.357		0.195	
16	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	Paved roads+ Unpaved roads+ Off road mobile+ Farm operations+ Construction+ Windblown	PM, ROG & CO onroad mobile+ PM, ROG & CO 860 offroad equipment PM, ROG & CO 870 farm equipment CO presumed to add minimal mass	Tire and brake wear as predicted by EMFAC	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM & CO Area, Stationary CO presumed to add minimal mass	PM & CO residential burning PM & CO waste burning and disposal PM cooking PM & CO fires CO presumed to add minimal mass	Total E.I. NOx (+ bacterial soil NOx estimate removed as natural background)	Total SOx	None, natural emission from the ocean, bay and delta waters	Total PM2.5	
17	What Row to use for Lookup Function ---------->		2	5 6	7	8 9	10	14	15	N/A	16	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Fresno - Annual** **2000-2001 species mass 21.5** **2005 Design value 17.2** **2005 Projection**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
18	2000 Emissions Inventory	(area of influence emissions inventory, each on a separate line for automated calculations)												**INDEX**
19	PM2.5	L1= Area 3	2.110	1.300		0.102	1.552		2.136				3.410	3-Fr
20		L2= Areas 3,4	5.388	1.900		0.143	2.817		6.506				7.288	Sum 3,4
21		Sr= Fresno, Madera	12.880	2.737		0.195	5.393		15.240				37.038	Fresno + Madera
22		R= SJV	40.682	12.272		0.746	23.281		30.963				112.405	SJV Total
23	NOx	L1= Area 3								61.170				3-Fr
24		L2= Areas 3,4								100.585				Sum 3,4
25		Sr= Fresno, Madera								161.161				Fresno + Madera
26		R= SJV								635.349				SJV Total
27	ROG	L1= Area 3			20.834			18.905						3-Fr
28		L2= Areas 3,4			30.979			37.872						Sum 3,4
29		Sr= Fresno, Madera			54.505			60.148						Fresno + Madera
30		R= SJV			198.230			227.374						SJV Total
31	SOx	L1= Area 3									4.022			3-Fr
32		L2= Areas 3,4									6.610			Sum 3,4
33		Sr= Fresno, Madera									10.596			Fresno + Madera
34		R= SJV									34.856			SJV Total
35	**2005 Emissions Inventory PM2.5 SIP EI V1.0**													
36	PM2.5 without new controls	L1= Area 3	1.860	1.190		0.123	1.478		1.956				3.051	3-Fr
37		L2= Areas 3,4	4.756	1.746		0.174	2.782		5.021				6.502	Sum 3,4
38		Sr= Fresno, Madera	11.369	2.516		0.237	5.304		11.157				31.061	Fresno + Madera
39		R= SJV	35.882	11.206		0.926	21.562		22.810				96.129	SJV Total
40	PM2.5 with new controls	L1= Area 3	1.860	1.190		0.123	1.478		1.956				3.051	3-Fr
41		L2= Areas 3,4	4.756	1.746		0.174	2.782		5.021				6.502	Sum 3,4
42		Sr= Fresno, Madera	11.369	2.516		0.237	5.304		11.157				31.061	Fresno + Madera
43		R= SJV	35.882	11.206		0.926	21.562		22.810				96.129	SJV Total
44	NOx without new controls	L1= Area 3								55.645				3-Fr
45		L2= Areas 3,4								92.111				Sum 3,4
46		Sr= Fresno, Madera								144.581				Fresno + Madera
47		R= SJV								575.421				SJV Total
48	NOx with new controls	L1= Area 3								55.645				3-Fr
49		L2= Areas 3,4								92.111				Sum 3,4
50		Sr= Fresno, Madera								144.581				Fresno + Madera
51		R= SJV								575.421				SJV Total
52	ROG without new controls	L1= Area 3			16.047			22.020						3-Fr
53		L2= Areas 3,4			24.121			45.182						Sum 3,4
54		Sr= Fresno, Madera			43.515			73.459						Fresno + Madera
55		R= SJV			157.574			262.243						SJV Total
56	ROG with new controls	L1= Area 3			16.047			22.020						3-Fr
57		L2= Areas 3,4			24.121			45.182						Sum 3,4
58		Sr= Fresno, Madera			43.515			73.459						Fresno + Madera
59		R= SJV			157.574			262.243						SJV Total
60	SOx without new controls	L1= Area 3									4.156			3-Fr
61		L2= Areas 3,4									6.795			Sum 3,4
62		Sr= Fresno, Madera									10.896			Fresno + Madera
63		R= SJV									26.372			SJV Total
64	SOx with new controls	L1= Area 3									4.156			3-Fr
65		L2= Areas 3,4									6.795			Sum 3,4
66		Sr= Fresno, Madera									10.896			Fresno + Madera
67		R= SJV									26.372			SJV Total

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Fresno - Annual** **2000-2001 species mass 21.5** **2005 Design value 17.2** **2005 Projection**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
68	2005 Rollback Projection									IMS95				
69	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2005 L1/2000 L1) * LINE 4	0.2	1.4	0.2	0.2	0.5	0.1	0.8	2.5	0.9		0.1	
70	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2005 L2/2000 L2) * LINE 5	0.2	0.6	0.1	0.1	0.3	0.1	0.6	1.3	0.4		0.1	
71	Sub regional Contribution	=(2005 Sr1/2000 Sr2) * LINE 6	0.2	0.5	0.1	0.1	0.3	0.1	0.7	1.0	0.3		0.2	
72	Regional Contribution	=(2005 R/2000 R) * LINE 7	0.2	0.7	0.1	0.1	0.3	0.1	0.5	1.3	0.3		0.2	
73	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.4		1.4	1.0	0.3	0.0	0.0	
74	2005 projected Annual Result	20.77	0.8	3.2	0.5	0.4	1.7	0.3	4.0	7.1	2.2	0.0	0.5	
75	2005 Rollback Projection with additional controls									IMS95				
76	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2005 L1/2000 L1) * LINE 4	0.2	1.4	0.2	0.2	0.5	0.1	0.8	2.5	0.9		0.1	
77	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2005 L2/2000 L2) * LINE 5	0.2	0.6	0.1	0.1	0.3	0.1	0.6	1.3	0.4		0.1	
78	Sub regional Contribution	=(2005 Sr1/2000 Sr2) * LINE 6	0.2	0.5	0.1	0.1	0.3	0.1	0.7	1.0	0.3		0.2	
79	Regional Contribution	=(2005 R/2000 R) * LINE 7	0.2	0.7	0.1	0.1	0.3	0.1	0.5	1.3	0.3		0.2	
80	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.4		1.4	1.0	0.3	0.0	0.0	
81	2005 projected Annual Result	20.77	0.8	3.2	0.5	0.4	1.7	0.3	4.0	7.1	2.2	0.0	0.5	
82										Linear				
83	2005 projected Annual Result	20.57	linear nitrate projection							2.5				
84	Modeling comparisons	20.77	IMS95 nitrate modeling							1.2				
85	Current 2005 Design value = 17.2	20.75	CMAQ nitrate modeling							1.0				
86		20.70	Average of all three							1.3				
87		20.76	Average of CMAQ and IMS95							5.9				
88														
89										CMAQ				
90										2.5				
91										1.3				
92										1.0				
93										1.3				
94										6.1				
95														
96	**2005 projected Annual Result**	20.76	0.847518234	3.22405119	0.4850742	0.425176888	1.72392633	0.286167661	4.037717348	7.070019524	2.160051963	0	0.501126387	
97	**Used for Start concentration M1 Fresno 2005C-2014**	20.76082977		3.70912544	Sum		2.010093991	Sum		CMAQ IMS95 Average				
98				3.70912544			2.009482302							
99	end													

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Fresno - Annual 2000-2001 species mass = 21.5 2005 Design value = 17.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
2	Line1 Source Contribution from Analysis	From CMB monthly analysis Feb 2000 to Dec 2000, adding January 2001 episode for chemistry equivalent to annual design value	From CMB	From CMB		From CMB	Estimated portion of mass included in Vegetative Burning =30%		From CMB minus estimated Organic Carbon from other sources	From CMB	From CMB	From CMB, if present	Unaccounted mass from CMB, if any.	
3	LINE 1	22.45	0.95	4.14		0.35	2.03		4.73	7.48	2.20	0.00	0.58	
4	Line 2 Natural and Transport Contribution, see Protocol	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	0, no natural background, transport estimated at 0		0, no natural background, transport estimated at 0	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions. = 20%		Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic. =20% + 10%	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	100% because marine salts are a natural emission	0, no additional background estimate for unexplained mass	
5	LINE 2	3.18	0.1	0.0		0.0	0.4		1.4	1.0	0.3			
6	Line 3 Net for Rollback	Net for Rollback, default percentages adjustable for episode characteristics, applicable to all columns except as indicated.										Removed entirely from rollback, added back to result		
7	LINE 3	19.27	0.9	4.1		0.4	1.6		3.3	6.5	1.9	0.0	0.6	
8	Line 4 Local Contribution PM2.5 Primary Emissions Area of Influence	Source contribution from smallest area of influence, representative of large particle primary source area, includes all PM size emissions in the area - Rolled back against local area of influence emission estimates	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net, non-linear rollback	Mass adjusted influence of 50% PM2.5 of net		Mass adjusted influence of 50% PM2.5 of net	
9	LINE 4	7.37	0.234	1.9		0.169	0.6		0.892	2.703	0.824		0.118	
10	Line 5 Local Contribution Primary and Secondary Area of Influence of PM2.5	Rolled back against local PM2.5 area of influence emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net, non-linear rollback	Mass adjusted influence of 30% PM2.5 of net		Mass adjusted influence of 30% PM2.5 of net	
11	LINE 5	4.01	0.179	0.82		0.071	0.31		0.815	1.333	0.406		0.076	
12	Line 6 Sub regional Contribution Primary and Secondary PM2.5 (Line 5 and Line 6 are the same area for annual evaluation but may differ for episode evaluation)	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net, non-linear rollback	Mass adjusted influence of 15% PM2.5 of net		Mass adjusted influence of 15% PM2.5 of net	
13	LINE 6	3.69	0.214	0.59		0.048	0.30		0.954	1.068	0.326		0.192	
14	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net, non-linear rollback	Mass adjusted influence of 5% PM2.5 of net		Mass adjusted influence of 5% PM2.5 of net	
15	LINE 7	4.20	0.226	0.88		0.062	0.43		0.646	1.404	0.357		0.195	
16	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	Paved roads+ Unpaved roads+ Off road mobile+ Farm operations+ Construction+ Windblown	PM, ROG & CO onroad mobile+ PM, ROG & CO 860 offroad equipment PM, ROG & CO 870 farm equipment CO presumed to add minimal mass		Tire and brake wear as predicted by EMFAC	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM & CO Area, Stationary CO presumed to add minimal mass		PM & CO residential burning PM & CO waste burning and disposal PM cooking PM & CO fires CO presumed to add minimal mass	Total E.I. NOx (+ bacterial soil NOx estimate removed as natural background)	Total SOx	None, natural emission from the ocean, bay and delta waters	Total PM2.5	
17	What Row to use for Lookup Function ---------->		2	5	6	7	8	9	10	14	15	N/A	16	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Fresno - Annual 2000-2001 species mass = 21.5 2005 Design value = 17.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
18	2000 Emissions Inventory	(area of influence emissions inventory, each on a separate line for automated calculations)												**INDEX**
19	PM2.5	L1= Area 3	2.110	1.300		0.102	1.552		2.136				3.410	3-Fr
20		L2= Areas 3,4	5.388	1.900		0.143	2.817		6.506				7.288	Sum 3,4
21		Sr= Fresno, Madera	12.880	2.737		0.195	5.393		15.240				37.038	Fresno + Madera
22		R= SJV	40.682	12.272		0.746	23.281		30.963				112.405	SJV Total
23	NOx	L1= Area 3								61.170				3-Fr
24		L2= Areas 3,4								100.585				Sum 3,4
25		Sr= Fresno, Madera								161.161				Fresno + Madera
26		R= SJV								635.349				SJV Total
27	ROG	L1= Area 3			20.834			18.905						3-Fr
28		L2= Areas 3,4			30.979			37.872						Sum 3,4
29		Sr= Fresno, Madera			54.505			60.148						Fresno + Madera
30		R= SJV			198.230			227.374						SJV Total
31	SOx	L1= Area 3									4.022			3-Fr
32		L2= Areas 3,4									6.610			Sum 3,4
33		Sr= Fresno, Madera									10.596			Fresno + Madera
34		R= SJV									34.856			SJV Total
35	2014 Emissions Inventory PM2.5 SIP EI V1.0													
36	PM2.5 without new controls	L1= Area 3	1.882	0.278		0.149	1.068		1.193				2.160	3-Fr
37		L2= Areas 3,4	4.885	0.426		0.217	2.110		2.671				5.310	Sum 3,4
38		Sr= Fresno, Madera	11.672	0.615		0.298	4.003		6.342				23.349	Fresno + Madera
39		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
40	PM2.5 with new controls	L1= Area 3	1.882	0.278		0.149	1.068		1.193				2.160	3-Fr
41		L2= Areas 3,4	4.885	0.426		0.217	2.110		2.671				5.310	Sum 3,4
42		Sr= Fresno, Madera	11.672	0.615		0.298	4.003		6.342				23.349	Fresno + Madera
43		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
44	NOx without new controls	L1= Area 3								36.121				3-Fr
45		L2= Areas 3,4								63.236				Sum 3,4
46		Sr= Fresno, Madera								73.878				Fresno + Madera
47		R= SJV								289.340				SJV Total
48	NOx with new controls	L1= Area 3								36.121				3-Fr
49		L2= Areas 3,4								63.236				Sum 3,4
50		Sr= Fresno, Madera								73.878				Fresno + Madera
51		R= SJV								289.340				SJV Total
52	ROG without new controls	L1= Area 3			10.391			21.564						3-Fr
53		L2= Areas 3,4			15.979			44.378						Sum 3,4
54		Sr= Fresno, Madera			29.774			72.358						Fresno + Madera
55		R= SJV			104.447			258.527						SJV Total
56	ROG with new controls	L1= Area 3			10.391			21.564						3-Fr
57		L2= Areas 3,4			15.979			44.378						Sum 3,4
58		Sr= Fresno, Madera			29.774			72.358						Fresno + Madera
59		R= SJV			104.447			258.527						SJV Total
60	SOx without new controls	L1= Area 3									4.311			3-Fr
61		L2= Areas 3,4									7.046			Sum 3,4
62		Sr= Fresno, Madera									10.877			Fresno + Madera
63		R= SJV									23.925			SJV Total
64	SOx with new controls	L1= Area 3									4.311			3-Fr
65		L2= Areas 3,4									7.046			Sum 3,4
66		Sr= Fresno, Madera									10.877			Fresno + Madera
67		R= SJV									23.925			SJV Total

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Fresno - Annual 2000-2001 species mass = 21.5 2005 Design value = 17.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
68	2014 Rollback Projection									IMS95				
69	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2000 L1) * LINE 4	0.2	0.3	0.1	0.2	0.3	0.1	0.5	2.0	0.9		0.1	
70	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2000 L2) * LINE 5	0.2	0.2	0.1	0.1	0.2	0.1	0.3	1.0	0.4		0.1	
71	Sub regional Contribution	=(2014 Sr1/2000 Sr2) * LINE 6	0.2	0.1	0.0	0.1	0.2	0.1	0.4	0.7	0.3		0.1	
72	Regional Contribution	=(2014 R/2000 R) * LINE 7	0.2	0.2	0.1	0.1	0.3	0.1	0.3	0.9	0.2		0.1	
73	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.4		1.4	1.0	0.3	0.0	0.0	
74	2014 projected Annual Result	15.15	0.9	0.8	0.3	0.5	1.4	0.3	2.9	5.5	2.2	0.0	0.4	
75	2014 Rollback Projection with additional controls									IMS95				
76	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2000 L1) * LINE 4	0.2	0.3	0.1	0.2	0.3	0.1	0.5	2.0	0.9		0.1	
77	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2000 L2) * LINE 5	0.2	0.2	0.1	0.1	0.2	0.1	0.3	1.0	0.4		0.1	
78	Sub regional Contribution	=(2014 Sr1/2000 Sr2) * LINE 6	0.2	0.1	0.0	0.1	0.2	0.1	0.4	0.7	0.3		0.1	
79	Regional Contribution	=(2014 R/2000 R) * LINE 7	0.2	0.2	0.1	0.1	0.3	0.1	0.3	0.9	0.2		0.1	
80	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.4		1.4	1.0	0.3	0.0	0.0	
81	2014 projected Annual Result	15.15	0.9	0.8	0.3	0.5	1.4	0.3	2.9	5.5	2.2	0.0	0.4	
82										Linear				
83	2014 projected Annual Result	14.17	linear nitrate projection							1.6				
84	Modeling comparisons	15.15	IMS95 nitrate modeling							0.8				
85	Current 2005 Design value = 17.2	15.05	CMAQ nitrate modeling							0.5				
86		14.79	Average of all three							0.6				
87		15.10	Average of CMAQ and IMS95							3.6				
88														
89										CMAQ				
90										1.9				
91										1.0				
92										0.7				
93										0.9				
94										4.4				
95														
96	2014 Final Species Mass	15.10	0.869803712	0.76904081	0.319694	0.521078616	1.396250196	0.281209304	2.914828678	5.46	2.181630197	0	0.381424479	
97										5.463508066				

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1		**Fresno CMB 2004-2006**													
2	Quarter	(All)													
3	Month	(All)													
4					Average	Value									
5		Year													
6	Data	2004	2005	2006	Grand Total										
7	Average of WBOakEu	2.34831	2.09131	2.96426	2.51091										
8	Average of TiresAndBreaks	0.23576	0.28128	0.30699	0.27895										
9	Average of AMSUL	1.68642	1.87866	1.80285	1.79521										
10	Average of AMNIT	7.54302	7.36791	7.34111	7.40566										
11	Average of OC	4.26794	3.86417	4.18058	4.10220	4.10220									
12	Average of MARINE75	0.10851	0.06228	0.10874	0.09362										
13	Average of FGASDIE	1.49819	1.58566	2.15576	1.78905	1.78905									
14	Average of FDFREAN	0.63465	0.60957	0.71888	0.66014										
15	Total	18.32280	17.74084	19.57917	18.63573										
16															
17	Quarter	(All)													
18	Year	(All)													
19															
20		Month													
21	Data	1	2	3	4	5	6	7	8	9	10	11	12	Grand Total	
22	Average of WBOakEu	4.45278	2.48702	1.81222	0.82388	0.94462	0.34520	0.59123	0.36154	0.48138	0.72917	5.86521	6.85544	2.20967	Average of WBOakEu
23	Average of TiresAndBreaks	0.25318	0.42495	0.28910	0.19574	0.14327	0.07293	0.13032	0.16243	0.21362	0.25682	0.46026	0.40282	0.26032	Average of TiresAndBreaks
24	Average of AMSUL	1.85219	1.24653	2.12498	1.77481	1.82249	1.66013	2.53848	2.02546	1.25777	1.55063	1.98175	1.59214	1.79013	Average of AMSUL
25	Average of AMNIT	14.02597	8.02961	10.13522	2.75987	1.87167	1.08591	1.33607	1.89272	2.36575	7.15413	17.47210	17.02337	7.44855	Average of AMNIT
26	Average of OC	4.88054	4.33679	3.76158	3.50367	2.88183	2.96069	4.33946	4.10810	3.65374	4.67364	5.87460	2.85357	4.05012	Average of OC
27	Average of MARINE75	0.21615	0.12151	0.04123	0.01742	0.06659	0.03169	0.00206	0.00217	0.00076	0.00000	0.18231	0.33118	0.08357	Average of MARINE75
28	Average of FGASDIE	1.82792	1.21896	1.60324	0.99554	0.95758	0.82053	1.15733	1.05150	1.13758	1.75501	2.82975	2.62051	1.54538	Average of FGASDIE
29	Average of FDFREAN	0.08393	0.07377	0.28231	0.82345	0.52106	0.57251	0.92123	1.04454	1.57063	1.05684	0.26660	0.10273	0.62112	Average of FDFREAN
30													Sum	18.00885	

	A	B	C	D E	F	G H	I	J	K	L	M	N
1	**Kings - Annual calculated 2005 species 2005 Design Value 17.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**	**Tire and Brake Wear**	**Organic Carbon**	**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
2	Line1 Source Contribution from Analysis	From Kings 2000-2005 Projection of PM2.5 speciation for 2000-2001	Kings 2000-2005 Projection	Kings 2000-2005 Projection	Kings 2000-2005 Projection	Kings 2000-2005 Projection from estimated portion of OC mass included in Vegetative Burning =30%	Kings 2000-2005 Projection of Veg. Burning minus estimated Organic Carbon from other sources	Kings 2000-2005 Projection	Kings 2000-2005 Projection	Kings 2000-2005 Projection	Kings 2000-2005 Projection	
3	2005 projected Annual Result	20.37	1.26	1.78	0.17	1.51	2.85	10.44	1.94		0.43	
4	Line 2 Natural and Transport Contribution, see Protocol	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	0, no natural background, transport estimated at 0	0, no natural background, transport estimated at 0	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions. = 20%	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic. =20% + 10%	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	100% because marine salts are a natural emission	0, no additional background estimate for unexplained mass	
5	LINE 2	2.89	0.1	0.0	0.0	0.3	0.9	1.4	0.3			
6	Line 3 Net for Rollback	Net for Rollback, default percentages adjustable for episode characteristics, applicable to all columns except as indicated.								Removed entirely from rollback, added back to result		
7	LINE 3	17.48	1.1	1.8	0.2	1.2	2.0	9.1	1.7	0.0	0.4	
8	Line 4 Local Contribution PM2.5 Primary Emissions Area of Influence	Source contribution from smallest area of influence, representative of large particle primary source area, includes all PM size emissions in the area - Rolled back against local area of influence emission estimates	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net, non-linear rollback	Mass adjusted influence of 50% PM2.5 of net		Mass adjusted influence of 50% PM2.5 of net	
9	LINE 4	4.72	0.268	0.5	0.038	0.1	0.409	2.475	0.819		0.071	
10	Line 5 Local Contribution Primary and Secondary Area of Influence of PM2.5	Rolled back against local PM2.5 area of influence emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net, non-linear rollback	Mass adjusted influence of 30% PM2.5 of net		Mass adjusted influence of 30% PM2.5 of net	
11	LINE 5	4.48	0.343	0.41	0.046	0.35	0.624	2.271	0.353		0.084	
12	Line 6 Sub regional Contribution Primary and Secondary PM2.5 (Line 5 and Line 6 are the same area for annual evaluation but may differ for episode evaluation)	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net, non-linear rollback	Mass adjusted influence of 15% PM2.5 of net		Mass adjusted influence of 15% PM2.5 of net	
13	LINE 6	2.48	0.212	0.24	0.025	0.25	0.323	1.237	0.098		0.103	
14	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net, non-linear rollback	Mass adjusted influence of 5% PM2.5 of net		Mass adjusted influence of 5% PM2.5 of net	
15	LINE 7	5.80	0.315	0.64	0.060	0.46	0.637	3.100	0.417		0.174	17.48
16	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	Paved roads+ Unpaved roads+ Off road mobile+ Farm operations+ Construction+ Windblown	PM, ROG & CO onroad mobile+ PM, ROG & CO 860 offroad equipment PM, ROG & CO 870 farm equipment CO presumed to add minimal mass	Tire and brake wear as predicted by EMFAC	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM & CO Area, Stationary CO presumed to add minimal mass	PM & CO residential burning PM & CO waste burning and disposal PM cooking PM & CO fires CO presumed to add minimal mass	Total E.I. NOx (+ bacterial soil NOx estimate removed as natural background)	Total SOx	None, natural emission from the ocean, bay and delta waters	Total PM2.5	
17	What Row to use for Lookup Function ---------->		2	5 6	7	8 9	10	14	15	N/A	16	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kings - Annual calculated 2005 species 2005 Design Value 17.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
18	2000 Emissions Inventory	(area of influence emissions inventory, each on a separate line for automated calculations)												**INDEX**
19	PM2.5	L1= Area 5	1.526	0.431		0.029	0.341		0.733				1.958	Sum 5
20		L2= Areas 5,6,7,8	6.520	1.195		0.117	2.693		3.724				7.715	Sum 5,6,7,8
21		Sr= Tulare, Kings	8.041	1.411		0.129	3.816		3.850				19.039	Tulare + Kings
22		R= SJV	35.882	11.206		0.926	21.562		22.810				96.129	SJV Total
23	NOx	L1= Area 5								22.972				Sum 5
24		L2= Areas 5,6,7,8								70.246				Sum 5,6,7,8
25		Sr= Tulare, Kings								76.527				Tulare + Kings
26		R= SJV								575.421				SJV Total
27	ROG	L1= Area 5			4.777			17.138						Sum 5
28		L2= Areas 5,6,7,8			20.515			48.919						Sum 5,6,7,8
29		Sr= Tulare, Kings			27.301			44.538						Tulare + Kings
30		R= SJV			157.574			262.243						SJV Total
31	SOx	L1= Area 5									2.589			Sum 5
32		L2= Areas 5,6,7,8									3.724			Sum 5,6,7,8
33		Sr= Tulare, Kings									2.057			Tulare + Kings
34		R= SJV									26.372			SJV Total
35	2014 Emissions Inventory PM2.5 SIP EI V1.0													
36	PM2.5 without new controls	L1= Area 5	1.593	0.099		0.035	0.299		0.386				1.692	Sum 5
37		L2= Areas 5,6,7,8	6.993	0.295		0.147	2.216		1.991				7.287	Sum 5,6,7,8
38		Sr= Tulare, Kings	8.642	0.345		0.163	3.254		2.324				16.294	Tulare + Kings
39		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
40	PM2.5 with new controls	L1= Area 5	1.593	0.099		0.035	0.299		0.386				1.692	Sum 5
41		L2= Areas 5,6,7,8	6.993	0.295		0.147	2.216		1.991				7.287	Sum 5,6,7,8
42		Sr= Tulare, Kings	8.642	0.345		0.163	3.254		2.324				16.294	Tulare + Kings
43		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
44	NOx without new controls	L1= Area 5								16.852				Sum 5
45		L2= Areas 5,6,7,8								49.575				Sum 5,6,7,8
46		Sr= Tulare, Kings								39.979				Tulare + Kings
47		R= SJV								289.340				SJV Total
48	NOx with new controls	L1= Area 5								16.852				Sum 5
49		L2= Areas 5,6,7,8								49.575				Sum 5,6,7,8
50		Sr= Tulare, Kings								39.979				Tulare + Kings
51		R= SJV								289.340				SJV Total
52	ROG without new controls	L1= Area 5			3.235			17.382						Sum 5
53		L2= Areas 5,6,7,8			13.707			50.401						Sum 5,6,7,8
54		Sr= Tulare, Kings			19.092			46.210						Tulare + Kings
55		R= SJV			104.447			258.527						SJV Total
56	ROG with new controls	L1= Area 5			3.235			17.382						Sum 5
57		L2= Areas 5,6,7,8			13.707			50.401						Sum 5,6,7,8
58		Sr= Tulare, Kings			19.092			46.210						Tulare + Kings
59		R= SJV			104.447			258.527						SJV Total
60	SOx without new controls	L1= Area 5									2.692			Sum 5
61		L2= Areas 5,6,7,8									3.572			Sum 5,6,7,8
62		Sr= Tulare, Kings									1.595			Tulare + Kings
63		R= SJV									23.925			SJV Total
64	SOx with new controls	L1= Area 5									2.692			Sum 5
65		L2= Areas 5,6,7,8									3.572			Sum 5,6,7,8
66		Sr= Tulare, Kings									1.595			Tulare + Kings
67		R= SJV									23.925			SJV Total

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kings - Annual calculated 2005 species 2005 Design Value 17.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
68	2014 Rollback Projection									IMS95				
69	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2000 L1) * LINE 4	0.3	0.1	0.0	0.0	0.1	0.0	0.2	2.0	0.9		0.1	
70	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2000 L2) * LINE 5	0.4	0.1	0.0	0.1	0.2	0.1	0.3	1.8	0.3		0.1	
71	Sub regional Contribution	=(2014 Sr1/2000 Sr2) * LINE 6	0.2	0.0	0.0	0.0	0.2	0.0	0.2	0.8	0.1		0.1	
72	Regional Contribution	=(2014 R/2000 R) * LINE 7	0.3	0.1	0.1	0.1	0.3	0.1	0.4	2.1	0.4		0.1	
73	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.3		0.9	1.4	0.3	0.0	0.0	
74	2014 projected Annual Result	15.76	1.3	0.4	0.2	0.2	1.1	0.2	2.0	8.1	1.9	0.0	0.4	
75	2014 Rollback Projection with additional controls									IMS95				
76	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2000 L1) * LINE 4	0.3	0.1	0.0	0.0	0.1	0.0	0.2	2.0	0.9		0.1	
77	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2000 L2) * LINE 5	0.4	0.1	0.0	0.1	0.2	0.1	0.3	1.8	0.3		0.1	
78	Sub regional Contribution	=(2014 Sr1/2000 Sr2) * LINE 6	0.2	0.0	0.0	0.0	0.2	0.0	0.2	0.8	0.1		0.1	
79	Regional Contribution	=(2014 R/2000 R) * LINE 7	0.3	0.1	0.1	0.1	0.3	0.1	0.4	2.1	0.4		0.1	
80	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.3		0.9	1.4	0.3	0.0	0.0	
81	2014 projected Annual Result	15.76	1.3	0.4	0.2	0.2	1.1	0.2	2.0	8.1	1.9	0.0	0.4	
82										Linear				
83	2014 projected Annual Result	14.60	linear nitrate projection							1.8				
84	Modeling comparisons	15.76	IMS95 nitrate modeling							1.6				
85	Current 2005 Design value = 17.2	15.63	CMAQ nitrate modeling							0.6				
86		15.33	Average of all three							1.6				
87		15.69	Average of CMAQ and IMS95							5.6				
88														
89	Kings County Receptor SMAT Reduction RRF	RRF = 2005 calculated Conc./ 2014 Conc.								CMAQ				
90	Design Value 17.2	0.72	linear nitrate projection							2.0				
91	RRF .862	0.77	IMS95 nitrate modeling							1.8				
92	FY Value = DV * RRF	0.77	CMAQ nitrate modeling							0.8				
93	13.250	0.75	Average of all three							2.0				
94	Target	0.770	Average of CMAQ and IMS95							6.7				
95	13.250													
96	0.770	15.69	RRF Species Target							Average CMAQ IMS95				
97										8.07				
98										Average CMAQ IMS95				
99	2014 projected Annual Result	15.69	1.333498334	0.36106473	0.1793017	0.208058354	1.140876504	0.182985187	1.956078171	8.070915853	1.897104875	0	0.36478366	
100														
101														
102	**County Specific Reduction Target Calculator**													
103	NOx County Specific Target Percentage Reductions	0%												
104	Calculator entry line NOx Tons reduction	0.00												
105	**SJV NOx Total EI in 2014 with adjustments**	289.34												
106	**NOx Tons required, Kings**	0.00												
107	**Kings County NOx EI (J46)**	39.98												
108	**Percent reduction Kings EI**	0%												
109														
110														
111	**Valleywide Reduction Target Calculator**													
112	NOx Regional Target Percentage Reductions	0%												
113	Calculator entry line NOx Tons reduction	0.00												
114	**SJV NOx Total EI in 2014 with adjustments**	289.34												
115	**NOx Valleywide tons required**	0.00												
116	**NOx tons required, Kings**	0.00												
117	**Kings County NOx EI (J46)**	39.98												
118	**Percent reduction Kings EI**	0%												

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kings - Annual** **2002 species mass 23.9 - MV adjustment** **2005 Design Value 17.2** **2005 Projection**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
2	Line1 Source Contribution from Analysis	From CMB monthly analysis Feb 2000 to Dec 2000, adding January 2001 episode for chemistry equivalent to annual design value	From CMB	From CMB		From CMB	Estimated portion of mass included in Vegetative Burning =30%		From CMB minus estimated Organic Carbon from other sources	From CMB	From CMB	From CMB, if present	Unaccounted mass from CMB, if any.	
3	LINE 1	22.27	1.41	1.98		0.14	1.49		3.47	10.96	2.34	0.00	0.49	
4	Line 2 Natural and Transport Contribution, see Protocol	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	0, no natural background, transport estimated at 0		0, no natural background, transport estimated at 0	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions. = 20%		Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic. =20% + 10%	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	100% because marine salts are a natural emission	0, no additional background estimate for unexplained mass	
5	LINE 2	3.21	0.1	0.0		0.0	0.3		1.0	1.4	0.3			
6	Line 3 Net for Rollback	Net for Rollback, default percentages adjustable for episode characteristics, applicable to all columns except as indicated.										Removed entirely from rollback, added back to result		
7	LINE 3	19.06	1.3	2.0		0.1	1.2		2.4	9.5	2.0	0.0	0.5	
8	Line 4 Local Contribution PM2.5 Primary Emissions Area of Influence	Source contribution from smallest area of influence, representative of large particle primary source area, includes all PM size emissions in the area - Rolled back against local area of influence emission estimates	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net, non-linear rollback	Mass adjusted influence of 50% PM2.5 of net		Mass adjusted influence of 50% PM2.5 of net	
9	LINE 4	5.01	0.305	0.6		0.031	0.1		0.513	2.530	0.856		0.081	
10	Line 5 Local Contribution Primary and Secondary Area of Influence of PM2.5	Rolled back against local PM2.5 area of influence emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net, non-linear rollback	Mass adjusted influence of 30% PM2.5 of net		Mass adjusted influence of 30% PM2.5 of net	
11	LINE 5	4.90	0.376	0.45		0.037	0.33		0.746	2.396	0.472		0.093	
12	Line 6 Sub regional Contribution Primary and Secondary PM2.5 (Line 5 and Line 6 are the same area for annual evaluation but may differ for episode evaluation)	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net, non-linear rollback	Mass adjusted influence of 15% PM2.5 of net		Mass adjusted influence of 15% PM2.5 of net	
13	LINE 6	2.73	0.233	0.27		0.021	0.23		0.383	1.302	0.174		0.116	
14	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net, non-linear rollback	Mass adjusted influence of 5% PM2.5 of net		Mass adjusted influence of 5% PM2.5 of net	
15	LINE 7	6.43	0.353	0.71		0.049	0.49		0.784	3.307	0.534		0.203	
16	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	Paved roads+ Unpaved roads+ Off road mobile+ Farm operations+ Construction+ Windblown	PM, ROG & CO onroad mobile+ PM, ROG & CO 860 offroad equipment PM, ROG & CO 870 farm equipment CO presumed to add minimal mass		Tire and brake wear as predicted by EMFAC	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM & CO Area, Stationary CO presumed to add minimal mass		PM & CO residential burning PM & CO waste burning and disposal PM cooking PM & CO fires CO presumed to add minimal mass	Total E.I. NOx (+ bacterial soil NOx estimate removed as natural background)	Total SOx	None, natural emission from the ocean, bay and delta waters	Total PM2.5	
17	What Row to use for Lookup Function ---------->		2	5	6	7	8	9	10	14	15	N/A	16	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kings - Annual** **2002 species mass 23.9 - MV adjustment** **2005 Design Value 17.2** **2005 Projection**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
18	2000 Emissions Inventory	(area of influence emissions inventory, each on a separate line for automated calculations)												**INDEX**
19	PM2.5	L1= Area 5	1.761	0.481		0.024	0.325		1.012				2.242	Sum 5
20		L2= Areas 5,6,7,8	7.227	1.299		0.096	2.651		4.907				8.527	Sum 5,6,7,8
21		Sr= Tulare, Kings	8.947	1.540		0.106	3.686		5.040				21.329	Tulare + Kings
22		R= SJV	40.682	12.272		0.746	23.281		30.963				112.405	SJV Total
23	NOx	L1= Area 5								24.302				Sum 5
24		L2= Areas 5,6,7,8								76.700				Sum 5,6,7,8
25		Sr= Tulare, Kings								83.401				Tulare + Kings
26		R= SJV								635.349				SJV Total
27	ROG	L1= Area 5			5.517			14.022						Sum 5
28		L2= Areas 5,6,7,8			25.513			40.291						Sum 5,6,7,8
29		Sr= Tulare, Kings			32.263			36.424						Tulare + Kings
30		R= SJV			198.230			227.374						SJV Total
31	SOx	L1= Area 5									2.791			Sum 5
32		L2= Areas 5,6,7,8									5.133			Sum 5,6,7,8
33		Sr= Tulare, Kings									3.793			Tulare + Kings
34		R= SJV									34.856			SJV Total
35	**2005 Emissions Inventory PM2.5 SIP EI V1.0**													
36	PM2.5 without new controls	L1= Area 5	1.526	0.431		0.029	0.341		0.733				1.958	Sum 5
37		L2= Areas 5,6,7,8	6.520	1.195		0.117	2.693		3.724				7.715	Sum 5,6,7,8
38		Sr= Tulare, Kings	8.041	1.411		0.129	3.816		3.850				19.039	Tulare + Kings
39		R= SJV	35.882	11.206		0.926	21.562		22.810				96.129	SJV Total
40	PM2.5 with new controls	L1= Area 5	1.526	0.431		0.029	0.341		0.733				1.958	Sum 5
41		L2= Areas 5,6,7,8	6.520	1.195		0.117	2.693		3.724				7.715	Sum 5,6,7,8
42		Sr= Tulare, Kings	8.041	1.411		0.129	3.816		3.850				19.039	Tulare + Kings
43		R= SJV	35.882	11.206		0.926	21.562		22.810				96.129	SJV Total
44	NOx without new controls	L1= Area 5								22.972				Sum 5
45		L2= Areas 5,6,7,8								70.246				Sum 5,6,7,8
46		Sr= Tulare, Kings								76.527				Tulare + Kings
47		R= SJV								575.421				SJV Total
48	NOx with new controls	L1= Area 5								22.972				Sum 5
49		L2= Areas 5,6,7,8								70.246				Sum 5,6,7,8
50		Sr= Tulare, Kings								76.527				Tulare + Kings
51		R= SJV								575.421				SJV Total
52	ROG without new controls	L1= Area 5			4.777			17.138						Sum 5
53		L2= Areas 5,6,7,8			20.515			48.919						Sum 5,6,7,8
54		Sr= Tulare, Kings			27.301			44.538						Tulare + Kings
55		R= SJV			157.574			262.243						SJV Total
56	ROG with new controls	L1= Area 5			4.777			17.138						Sum 5
57		L2= Areas 5,6,7,8			20.515			48.919						Sum 5,6,7,8
58		Sr= Tulare, Kings			27.301			44.538						Tulare + Kings
59		R= SJV			157.574			262.243						SJV Total
60	SOx without new controls	L1= Area 5									2.589			Sum 5
61		L2= Areas 5,6,7,8									3.724			Sum 5,6,7,8
62		Sr= Tulare, Kings									2.057			Tulare + Kings
63		R= SJV									26.372			SJV Total
64	SOx with new controls	L1= Area 5									2.589			Sum 5
65		L2= Areas 5,6,7,8									3.724			Sum 5,6,7,8
66		Sr= Tulare, Kings									2.057			Tulare + Kings
67		R= SJV									26.372			SJV Total

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kings - Annual** **2002 species mass 23.9 - MV adjustment** **2005 Design Value 17.2** **2005 Projection**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
68	2005 Rollback Projection									IMS95				
69	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2005 L1/2000 L1) * LINE 4	0.3	0.4	0.1	0.0	0.1	0.0	0.4	2.4	0.8		0.1	
70	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2005 L2/2000 L2) * LINE 5	0.3	0.4	0.1	0.0	0.3	0.1	0.6	2.3	0.3		0.1	
71	Sub regional Contribution	=(2005 Sr1/2000 Sr2) * LINE 6	0.2	0.2	0.0	0.0	0.2	0.0	0.3	1.2	0.1		0.1	
72	Regional Contribution	=(2005 R/2000 R) * LINE 7	0.3	0.5	0.1	0.1	0.4	0.1	0.6	3.1	0.4		0.2	
73	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.3		1.0	1.4	0.3	0.0	0.0	
74	2005 projected Annual Result	20.39	1.3	1.5	0.2	0.2	1.3	0.2	2.8	10.5	1.9	0.0	0.4	
75	2005 Rollback Projection with additional controls									IMS95				
76	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2005 L1/2000 L1) * LINE 4	0.3	0.4	0.1	0.0	0.1	0.0	0.4	2.4	0.8		0.1	
77	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2005 L2/2000 L2) * LINE 5	0.3	0.4	0.1	0.0	0.3	0.1	0.6	2.3	0.3		0.1	
78	Sub regional Contribution	=(2005 Sr1/2000 Sr2) * LINE 6	0.2	0.2	0.0	0.0	0.2	0.0	0.3	1.2	0.1		0.1	
79	Regional Contribution	=(2005 R/2000 R) * LINE 7	0.3	0.5	0.1	0.1	0.4	0.1	0.6	3.1	0.4		0.2	
80	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.3		1.0	1.4	0.3	0.0	0.0	
81	2005 projected Annual Result	20.39	1.3	1.5	0.2	0.2	1.3	0.2	2.8	10.5	1.9	0.0	0.4	
82										Linear				
83	2005 projected Annual Result	20.13	linear nitrate projection							2.4				
84	Modeling comparisons	20.39	IMS95 nitrate modeling							2.2				
85	Current 2005 Design value = 17.2	20.36	CMAQ nitrate modeling							1.2				
86		20.29	Average of all three							3.0				
87		20.37	Average of CMAQ and IMS95							8.8				
88														
89										CMAQ				
90										2.4				
91										2.3				
92										1.2				
93										3.1				
94										9.0				
95														
96	**2005 projected Annual Result**	20.37	1.264451067	1.53158494	0.2446591	0.168869157	1.293383535	0.212379957	2.846987733	10.43997429	1.939669843	0	0.431991978	
97	**Used for Start concentration M1 Kings 2005C-2014**	20.3739516		1.77624404	Sum		1.505763492	Sum		CMAQ IMS95 Average				
98				1.77624404			1.505301391							
99	end													

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kings - Annual 2002 species mass 23.9 - MV adjustment 2005 Design Value 17.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
2	Line1 Source Contribution from Analysis	From CMB monthly analysis Feb 2000 to Dec 2000, adding January 2001 episode for chemistry equivalent to annual design value	From CMB	From CMB		From CMB	Estimated portion of mass included in Vegetative Burning =30%		From CMB minus estimated Organic Carbon from other sources	From CMB	From CMB	From CMB, if present	Unaccounted mass from CMB, if any.	
3	LINE 1	22.27	1.41	1.98		0.14	1.49		3.47	10.96	2.34	0.00	0.49	
4	Line 2 Natural and Transport Contribution, see Protocol	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	0, no natural background, transport estimated at 0		0, no natural background, transport estimated at 0	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions. = 20%		Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic. =20% + 10%	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	100% because marine salts are a natural emission	0, no additional background estimate for unexplained mass	
5	LINE 2	3.21	0.1	0.0		0.0	0.3		1.0	1.4	0.3			
6	Line 3 Net for Rollback	Net for Rollback, default percentages adjustable for episode characteristics, applicable to all columns except as indicated.										Removed entirely from rollback, added back to result		
7	LINE 3	19.06	1.3	2.0		0.1	1.2		2.4	9.5	2.0	0.0	0.5	
8	Line 4 Local Contribution PM2.5 Primary Emissions Area of Influence	Source contribution from smallest area of influence, representative of large particle primary source area, includes all PM size emissions in the area - Rolled back against local area of influence emission estimates	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net, non-linear rollback	Mass adjusted influence of 50% PM2.5 of net		Mass adjusted influence of 50% PM2.5 of net	
9	LINE 4	5.01	0.305	0.6		0.031	0.1		0.513	2.530	0.856		0.081	
10	Line 5 Local Contribution Primary and Secondary Area of Influence of PM2.5	Rolled back against local PM2.5 area of influence emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net, non-linear rollback	Mass adjusted influence of 30% PM2.5 of net		Mass adjusted influence of 30% PM2.5 of net	
11	LINE 5	4.90	0.376	0.45		0.037	0.33		0.746	2.396	0.472		0.093	
12	Line 6 Sub regional Contribution Primary and Secondary PM2.5 (Line 5 and Line 6 are the same area for annual evaluation but may differ for episode evaluation)	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net, non-linear rollback	Mass adjusted influence of 15% PM2.5 of net		Mass adjusted influence of 15% PM2.5 of net	
13	LINE 6	2.73	0.233	0.27		0.021	0.23		0.383	1.302	0.174		0.116	
14	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net, non-linear rollback	Mass adjusted influence of 5% PM2.5 of net		Mass adjusted influence of 5% PM2.5 of net	
15	LINE 7	6.43	0.353	0.71		0.049	0.49		0.784	3.307	0.534		0.203	
16	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	Paved roads+ Unpaved roads+ Off road mobile+ Farm operations+ Construction+ Windblown	PM, ROG & CO onroad mobile+ PM, ROG & CO 860 offroad equipment PM, ROG & CO 870 farm equipment CO presumed to add minimal mass		Tire and brake wear as predicted by EMFAC	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM & CO Area, Stationary CO presumed to add minimal mass		PM & CO residential burning PM & CO waste burning and disposal PM cooking PM & CO fires CO presumed to add minimal mass	Total E.I. NOx (+ bacterial soil NOx estimate removed as natural background)	Total SOx	None, natural emission from the ocean, bay and delta waters	Total PM2.5	
17	What Row to use for Lookup Function ---------->		2	5	6	7	8	9	10	14	15	N/A	16	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kings - Annual 2002 species mass 23.9 - MV adjustment 2005 Design Value 17.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
18	2000 Emissions Inventory	(area of influence emissions inventory, each on a separate line for automated calculations)												**INDEX**
19	PM2.5	L1= Area 5	1.761	0.481		0.024	0.325		1.012				2.242	Sum 5
20		L2= Areas 5,6,7,8	7.227	1.299		0.096	2.651		4.907				8.527	Sum 5,6,7,8
21		Sr= Tulare, Kings	8.947	1.540		0.106	3.686		5.040				21.329	Tulare + Kings
22		R= SJV	40.682	12.272		0.746	23.281		30.963				112.405	SJV Total
23	NOx	L1= Area 5								24.302				Sum 5
24		L2= Areas 5,6,7,8								76.700				Sum 5,6,7,8
25		Sr= Tulare, Kings								83.401				Tulare + Kings
26		R= SJV								635.349				SJV Total
27	ROG	L1= Area 5			5.517			14.022						Sum 5
28		L2= Areas 5,6,7,8			25.513			40.291						Sum 5,6,7,8
29		Sr= Tulare, Kings			32.263			36.424						Tulare + Kings
30		R= SJV			198.230			227.374						SJV Total
31	SOx	L1= Area 5									2.791			Sum 5
32		L2= Areas 5,6,7,8									5.133			Sum 5,6,7,8
33		Sr= Tulare, Kings									3.793			Tulare + Kings
34		R= SJV									34.856			SJV Total
35	2014 Emissions Inventory PM2.5 SIP EI V1.0													
36	PM2.5 without new controls	L1= Area 5	1.593	0.099		0.035	0.299		0.386				1.692	Sum 5
37		L2= Areas 5,6,7,8	6.993	0.295		0.147	2.216		1.991				7.287	Sum 5,6,7,8
38		Sr= Tulare, Kings	8.642	0.345		0.163	3.254		2.324				16.294	Tulare + Kings
39		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
40	PM2.5 with new controls	L1= Area 5	1.593	0.099		0.035	0.299		0.386				1.692	Sum 5
41		L2= Areas 5,6,7,8	6.993	0.295		0.147	2.216		1.991				7.287	Sum 5,6,7,8
42		Sr= Tulare, Kings	8.642	0.345		0.163	3.254		2.324				16.294	Tulare + Kings
43		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
44	NOx without new controls	L1= Area 5								16.852				Sum 5
45		L2= Areas 5,6,7,8								49.575				Sum 5,6,7,8
46		Sr= Tulare, Kings								39.979				Tulare + Kings
47		R= SJV								289.340				SJV Total
48	NOx with new controls	L1= Area 5								16.852				Sum 5
49		L2= Areas 5,6,7,8								49.575				Sum 5,6,7,8
50		Sr= Tulare, Kings								39.979				Tulare + Kings
51		R= SJV								289.340				SJV Total
52	ROG without new controls	L1= Area 5			3.235			17.382						Sum 5
53		L2= Areas 5,6,7,8			13.707			50.401						Sum 5,6,7,8
54		Sr= Tulare, Kings			19.092			46.210						Tulare + Kings
55		R= SJV			104.447			258.527						SJV Total
56	ROG with new controls	L1= Area 5			3.235			17.382						Sum 5
57		L2= Areas 5,6,7,8			13.707			50.401						Sum 5,6,7,8
58		Sr= Tulare, Kings			19.092			46.210						Tulare + Kings
59		R= SJV			104.447			258.527						SJV Total
60	SOx without new controls	L1= Area 5									2.692			Sum 5
61		L2= Areas 5,6,7,8									3.572			Sum 5,6,7,8
62		Sr= Tulare, Kings									1.595			Tulare + Kings
63		R= SJV									23.925			SJV Total
64	SOx with new controls	L1= Area 5									2.692			Sum 5
65		L2= Areas 5,6,7,8									3.572			Sum 5,6,7,8
66		Sr= Tulare, Kings									1.595			Tulare + Kings
67		R= SJV									23.925			SJV Total

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kings - Annual 2002 species mass 23.9 - MV adjustment 2005 Design Value 17.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
68	2014 Rollback Projection									IMS95				
69	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2000 L1) * LINE 4	0.3	0.1	0.0	0.0	0.1	0.0	0.2	2.0	0.8		0.1	
70	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2000 L2) * LINE 5	0.4	0.1	0.0	0.1	0.2	0.1	0.3	1.8	0.3		0.1	
71	Sub regional Contribution	=(2014 Sr1/2000 Sr2) * LINE 6	0.2	0.1	0.0	0.0	0.2	0.0	0.2	0.9	0.1		0.1	
72	Regional Contribution	=(2014 R/2000 R) * LINE 7	0.3	0.1	0.1	0.1	0.3	0.1	0.3	2.1	0.4		0.1	
73	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.3		1.0	1.4	0.3	0.0	0.0	
74	2014 projected Annual Result	15.93	1.3	0.4	0.2	0.2	1.1	0.2	2.0	8.2	1.9	0.0	0.4	
75	2014 Rollback Projection with additional controls									IMS95				
76	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2000 L1) * LINE 4	0.3	0.1	0.0	0.0	0.1	0.0	0.2	2.0	0.8		0.1	
77	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2000 L2) * LINE 5	0.4	0.1	0.0	0.1	0.2	0.1	0.3	1.8	0.3		0.1	
78	Sub regional Contribution	=(2014 Sr1/2000 Sr2) * LINE 6	0.2	0.1	0.0	0.0	0.2	0.0	0.2	0.9	0.1		0.1	
79	Regional Contribution	=(2014 R/2000 R) * LINE 7	0.3	0.1	0.1	0.1	0.3	0.1	0.3	2.1	0.4		0.1	
80	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.3		1.0	1.4	0.3	0.0	0.0	
81	2014 projected Annual Result	15.93	1.3	0.4	0.2	0.2	1.1	0.2	2.0	8.2	1.9	0.0	0.4	
82										Linear				
83	2014 projected Annual Result	14.56	linear nitrate projection							1.8				
84	Modeling comparisons	15.93	IMS95 nitrate modeling							1.5				
85	Current 2005 Design value = 17.2	15.78	CMAQ nitrate modeling							0.6				
86		15.42	Average of all three							1.5				
87		15.85	Average of CMAQ and IMS95							5.4				
88														
89										CMAQ				
90										2.0				
91										1.8				
92										0.8				
93										2.0				
94										6.7				
95														
96	2014 Final Species Mass	15.85	1.332633434	0.36627274	0.1647269	0.208058354	1.11414162	0.214970896	2.038961719	8.15	1.898420859	0	0.36478366	
97										8.150979368				

	A	B	C	D E	F	G H	I	J	K	L	M	N
1	**Tulare - Annual calculated 2005 species 2005 Design Value 18.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**	**Tire and Brake Wear**	**Organic Carbon**	**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
2	Line1 Source Contribution from Analysis	From Tulare 2000-2005 Projection of PM2.5 speciation for 2000-2001	Tulare 2000-2005 Projection	Tulare 2000-2005 Projection	Tulare 2000-2005 Projection	Tulare 2000-2005 Projection from estimated portion of OC mass included in Vegetative Burning =30%	Tulare 2000-2005 Projection of Veg. Burning minus estimated Organic Carbon from other sources	Tulare 2000-2005 Projection	Tulare 2000-2005 Projection	Tulare 2000-2005 Projection	Tulare 2000-2005 Projection	
3	2005 projected Annual Result	21.71	1.29	3.25	0.31	1.51	2.95	10.36	1.61		0.44	
4	Line 2 Natural and Transport Contribution, see Protocol	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	0, no natural background, transport estimated at 0	0, no natural background, transport estimated at 0	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions. = 20%	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic. =20% + 10%	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	100% because marine salts are a natural emission	0, no additional background estimate for unexplained mass	
5	LINE 2	2.87	0.1	0.0	0.0	0.3	0.9	1.3	0.2			
6	Line 3 Net for Rollback	Net for Rollback, default percentages adjustable for episode characteristics, applicable to all columns except as indicated.								Removed entirely from rollback, added back to result		
7	LINE 3	18.84	1.2	3.3	0.3	1.2	2.1	9.0	1.40	0.0	0.4	
8	Line 4 Local Contribution PM2.5 Primary Emissions Area of Influence	Source contribution from smallest area of influence, representative of large particle primary source area, includes all PM size emissions in the area - Rolled back against local area of influence emission estimates	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net, non-linear rollback	Mass adjusted influence of 50% PM2.5 of net		Mass adjusted influence of 50% PM2.5 of net	
9	LINE 4	5.81	0.357	1.0	0.114	0.4	0.735	2.866	0.296		0.093	
10	Line 5 Local Contribution Primary and Secondary Area of Influence of PM2.5	Rolled back against local PM2.5 area of influence emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net, non-linear rollback	Mass adjusted influence of 30% PM2.5 of net		Mass adjusted influence of 30% PM2.5 of net	
11	LINE 5	4.55	0.316	0.72	0.066	0.28	0.524	2.112	0.450		0.080	
12	Line 6 Sub regional Contribution Primary and Secondary PM2.5 (Line 5 and Line 6 are the same area for annual evaluation but may differ for episode evaluation)	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net, non-linear rollback	Mass adjusted influence of 15% PM2.5 of net		Mass adjusted influence of 15% PM2.5 of net	
13	LINE 6	2.50	0.195	0.43	0.037	0.20	0.271	1.151	0.124		0.099	
14	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net, non-linear rollback	Mass adjusted influence of 5% PM2.5 of net		Mass adjusted influence of 5% PM2.5 of net	
15	LINE 7	5.99	0.290	1.13	0.088	0.37	0.535	2.884	0.531		0.166	18.84
16	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	Paved roads+ Unpaved roads+ Off road mobile+ Farm operations+ Construction+ Windblown	PM, ROG & CO onroad mobile+ PM, ROG & CO 860 offroad equipment PM, ROG & CO 870 farm equipment CO presumed to add minimal mass	Tire and brake wear as predicted by EMFAC	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM & CO Area, Stationary CO presumed to add minimal mass	PM & CO residential burning PM & CO waste burning and disposal PM cooking PM & CO fires CO presumed to add minimal mass	Total E.I. NOx (+ bacterial soil NOx estimate removed as natural background)	Total SOx	None, natural emission from the ocean, bay and delta waters	Total PM2.5	
17	What Row to use for Lookup Function ---------->		2	5 6	7	8 9	10	14	15	N/A	16	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Tulare - Annual calculated 2005 species 2005 Design Value 18.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
18	2005 Emissions Inventory	(area of influence emissions inventory, each on a separate line for automated calculations)												**INDEX**
19	PM2.5	L1= Area 7	2.206	0.489		0.060	1.058		1.567				2.695	7-Tu
20		L2= Areas 5,6,7,8	6.520	1.195		0.117	2.693		3.724				7.715	Sum 5,6,7,8
21		Sr= Kings, Tulare	8.041	1.411		0.129	3.816		3.850				19.039	Tulare + Kings
22		R= SJV	35.882	11.206		0.926	21.562		22.810				96.129	SJV Total
23	NOx	L1= Area 7								28.598				7-Tu
24		L2= Areas 5,6,7,8								70.246				Sum 5,6,7,8
25		Sr= Kings, Tulare								76.527				Tulare + Kings
26		R= SJV								575.421				SJV Total
27	ROG	L1= Area 7			10.210			18.742						7-Tu
28		L2= Areas 5,6,7,8			20.515			48.919						Sum 5,6,7,8
29		Sr= Kings, Tulare			27.301			44.538						Tulare + Kings
30		R= SJV			157.574			262.243						SJV Total
31	SOx	L1= Area 7									0.734			7-Tu
32		L2= Areas 5,6,7,8									3.724			Sum 5,6,7,8
33		Sr= Kings, Tulare									2.057			Tulare + Kings
34		R= SJV									26.372			SJV Total
35	2014 Emissions Inventory PM2.5 SIP EI V1.0													
36	PM2.5 without new controls	L1= Area 7	2.404	0.127		0.077	0.744		0.855				2.531	7-Tu
37		L2= Areas 5,6,7,8	6.993	0.295		0.147	2.216		1.991				7.287	Sum 5,6,7,8
38		Sr= Kings, Tulare	8.642	0.345		0.163	3.254		2.324				16.294	Tulare + Kings
39		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
40	PM2.5 with new controls	L1= Area 7	2.404	0.127		0.077	0.744		0.855				2.531	7-Tu
41		L2= Areas 5,6,7,8	6.993	0.295		0.147	2.216		1.991				7.287	Sum 5,6,7,8
42		Sr= Kings, Tulare	8.642	0.345		0.163	3.254		2.324				16.294	Tulare + Kings
43		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
44	NOx without new controls	L1= Area 7								19.407				7-Tu
45		L2= Areas 5,6,7,8								49.575				Sum 5,6,7,8
46		Sr= Kings, Tulare								39.979				Tulare + Kings
47		R= SJV								289.340				SJV Total
48	NOx with new controls	L1= Area 7								19.407				7-Tu
49		L2= Areas 5,6,7,8								49.575				Sum 5,6,7,8
50		Sr= Kings, Tulare								39.979				Tulare + Kings
51		R= SJV								289.340				SJV Total
52	ROG without new controls	L1= Area 7			6.666			19.476						7-Tu
53		L2= Areas 5,6,7,8			13.707			50.401						Sum 5,6,7,8
54		Sr= Kings, Tulare			19.092			46.210						Tulare + Kings
55		R= SJV			104.447			258.527						SJV Total
56	ROG with new controls	L1= Area 7			6.666			19.476						7-Tu
57		L2= Areas 5,6,7,8			13.707			50.401						Sum 5,6,7,8
58		Sr= Kings, Tulare			19.092			46.210						Tulare + Kings
59		R= SJV			104.447			258.527						SJV Total
60	SOx without new controls	L1= Area 7									0.561			7-Tu
61		L2= Areas 5,6,7,8									3.572			Sum 5,6,7,8
62		Sr= Kings, Tulare									1.595			Tulare + Kings
63		R= SJV									23.925			SJV Total
64	SOx with new controls	L1= Area 7									0.561			7-Tu
65		L2= Areas 5,6,7,8									3.572			Sum 5,6,7,8
66		Sr= Kings, Tulare									1.595			Tulare + Kings
67		R= SJV									23.925			SJV Total

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Tulare - Annual calculated 2005 species 2005 Design Value 18.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
68	2014 Rollback Projection									IMS95				
69	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2005 L1) * LINE 4	0.4	0.2	0.1	0.1	0.2	0.1	0.4	2.3	0.2		0.1	
70	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2005 L2) * LINE 5	0.3	0.2	0.1	0.1	0.2	0.0	0.3	1.7	0.4		0.1	
71	Sub regional Contribution	=(2014 Sr1/2005 Sr2) * LINE 6	0.2	0.1	0.0	0.0	0.1	0.0	0.2	0.8	0.1		0.1	
72	Regional Contribution	=(2014 R/2005 R) * LINE 7	0.3	0.2	0.1	0.1	0.2	0.1	0.3	1.9	0.5		0.1	
73	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.3		0.9	1.3	0.2	0.0	0.0	
74	2014 projected Annual Result	15.91	1.4	0.7	0.3	0.4	1.1	0.2	2.0	8.0	1.4	0.0	0.4	
75	2014 Rollback Projection with additional controls									IMS95				
76	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2005 L1) * LINE 4	0.4	0.2	0.1	0.1	0.2	0.1	0.4	2.3	0.2		0.1	
77	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2005 L2) * LINE 5	0.3	0.2	0.1	0.1	0.2	0.0	0.3	1.7	0.4		0.1	
78	Sub regional Contribution	=(2014 Sr1/2005 Sr2) * LINE 6	0.2	0.1	0.0	0.0	0.1	0.0	0.2	0.8	0.1		0.1	
79	Regional Contribution	=(2014 R/2005 R) * LINE 7	0.3	0.2	0.1	0.1	0.2	0.1	0.3	1.9	0.5		0.1	
80	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.3		0.9	1.3	0.2	0.0	0.0	
81	2014 projected Annual Result	15.91	1.4	0.7	0.3	0.4	1.1	0.2	2.0	8.0	1.4	0.0	0.4	
82										Linear				
83	2014 projected Annual Result	14.74	linear nitrate projection							1.9				
84	Modeling comparisons	15.91	IMS95 nitrate modeling							1.5				
85	Current 2005 Design value = 18.2	15.79	CMAQ nitrate modeling							0.6				
86		15.48	Average of all three							1.4				
87		15.85	Average of CMAQ and IMS95							5.5				
88														
89	Tulare County Receptor SMAT Reduction RRF	RRF = 2005 calculated Conc./ 2014 Conc.								CMAQ				
90	Design Value 18.2	0.68	linear nitrate projection							2.2				
91	RRF .843	0.73	IMS95 nitrate modeling							1.7				
92	FY Value = DV * RRF	0.73	CMAQ nitrate modeling							0.8				
93	13.286	0.71	Average of all three							1.9				
94	Target	0.730	Average of CMAQ and IMS95							6.5				
95	12.556													
96	0.730	15.85	RRF Species Target							Average CMAQ IMS95				
97										7.94				
98										Average CMAQ IMS95				
99	2014 projected Annual Result	15.85	1.372142431	0.68702707	0.3249682	0.382228836	1.102568239	0.184916445	2.029334056	7.944870391	1.444832204	0	0.377331418	
100	2014 Final Species Mass													
101														
102	**County Specific Reduction Target Calculator**													
103	NOx County Specific Target Percentage Reductions	0%												
104	Calculator entry line NOx Tons reduction	0.00												
105	**SJV NOx Total EI in 2014 with adjustments**	289.34												
106	**NOx Tons required, Tulare**	0.00												
107	**Tulare County NOx EI (J46)**	39.98												
108	**Percent reduction Tulare EI**	0%												
109														
110														
111	**Valleywide Reduction Target Calculator**													
112	NOx Regional Target Percentage Reductions	0%												
113	Calculator entry line NOx Tons reduction	0.00												
114	**SJV NOx Total EI in 2014 with adjustments**	289.34												
115	**NOx Valleywide tons required**	0.00												
116	**NOx tons required, Tulare**	0.00												
117	**Tulare County NOx EI (J46)**	39.98												
118	**Percent reduction Tulare EI**	0%												

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Tulare - Annual** **2002 species mass 23.9** **2005 Design Value 18.2** **2005 Projection**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
2	Line1 Source Contribution from Analysis	From CMB monthly analysis Feb 2000 to Dec 2000, adding January 2001 episode for chemistry equivalent to annual design value	From CMB	From CMB		From CMB	Estimated portion of mass included in Vegetative Burning =30%		From CMB minus estimated Organic Carbon from other sources	From CMB	From CMB	From CMB, if present	Unaccounted mass from CMB, if any.	
3	LINE 1	24.08	1.41	3.60		0.25	1.51		3.52	10.96	2.34	0.00	0.49	
4	Line 2 Natural and Transport Contribution, see Protocol	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	0, no natural background, transport estimated at 0		0, no natural background, transport estimated at 0	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions. = 20%		Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic. =20% + 10%	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	100% because marine salts are a natural emission	0, no additional background estimate for unexplained mass	
5	LINE 2	3.23	0.1	0.0		0.0	0.3		1.1	1.4	0.3			
6	Line 3 Net for Rollback	Net for Rollback, default percentages adjustable for episode characteristics, applicable to all columns except as indicated.										Removed entirely from rollback, added back to result		
7	LINE 3	20.85	1.3	3.6		0.3	1.2		2.5	9.5	2.04	0.0	0.5	
8	Line 4 Local Contribution PM2.5 Primary Emissions Area of Influence	Source contribution from smallest area of influence, representative of large particle primary source area, includes all PM size emissions in the area - Rolled back against local area of influence emission estimates	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net, non-linear rollback	Mass adjusted influence of 50% PM2.5 of net		Mass adjusted influence of 50% PM2.5 of net	
9	LINE 4	6.50	0.379	1.1		0.094	0.4		0.838	3.056	0.591		0.100	
10	Line 5 Local Contribution Primary and Secondary Area of Influence of PM2.5	Rolled back against local PM2.5 area of influence emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net, non-linear rollback	Mass adjusted influence of 30% PM2.5 of net		Mass adjusted influence of 30% PM2.5 of net	
11	LINE 5	4.98	0.347	0.80		0.055	0.26		0.633	2.216	0.578		0.088	
12	Line 6 Sub regional Contribution Primary and Secondary PM2.5 (Line 5 and Line 6 are the same area for annual evaluation but may differ for episode evaluation)	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net, non-linear rollback	Mass adjusted influence of 15% PM2.5 of net		Mass adjusted influence of 15% PM2.5 of net	
13	LINE 6	2.76	0.215	0.47		0.030	0.18		0.325	1.205	0.214		0.111	
14	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net, non-linear rollback	Mass adjusted influence of 5% PM2.5 of net		Mass adjusted influence of 5% PM2.5 of net	
15	LINE 7	6.61	0.326	1.25		0.071	0.39		0.666	3.059	0.654		0.194	
16	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	Paved roads+ Unpaved roads+ Off road mobile+ Farm operations+ Construction+ Windblown	PM, ROG & CO onroad mobile+ PM, ROG & CO 860 offroad equipment PM, ROG & CO 870 farm equipment CO presumed to add minimal mass		Tire and brake wear as predicted by EMFAC	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM & CO Area, Stationary CO presumed to add minimal mass		PM & CO residential burning PM & CO waste burning and disposal PM cooking PM & CO fires CO presumed to add minimal mass	Total E.I. NOx (+ bacterial soil NOx estimate removed as natural background)	Total SOx	None, natural emission from the ocean, bay and delta waters	Total PM2.5	
17	What Row to use for Lookup Function ---------->		2	5	6	7	8	9	10	14	15	N/A	16	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
	Tulare - Annual	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
	2002 species mass 23.9													
	2005 Design Value 18.2													
1	**2005 Projection**													
18	2000 Emissions Inventory	(area of influence emissions inventory, each on a separate line for automated calculations)												**INDEX**
19	PM2.5	L1= Area 7	2.366	0.520		0.050	1.120		1.949				2.886	7-Tu
20		L2= Areas 5,6,7,8	7.227	1.299		0.096	2.651		4.907				8.527	Sum 5,6,7,8
21		Sr= Kings, Tulare	8.947	1.540		0.106	3.686		5.040				21.329	Tulare + Kings
22		R= SJV	40.682	12.272		0.746	23.281		30.963				112.405	SJV Total
23	NOx	L1= Area 7								31.743				7-Tu
24		L2= Areas 5,6,7,8								76.700				Sum 5,6,7,8
25		Sr= Kings, Tulare								83.401				Tulare + Kings
26		R= SJV								635.349				SJV Total
27	ROG	L1= Area 7			13.231			15.519						7-Tu
28		L2= Areas 5,6,7,8			25.513			40.291						Sum 5,6,7,8
29		Sr= Kings, Tulare			32.263			36.424						Tulare + Kings
30		R= SJV			198.230			227.374						SJV Total
31	SOx	L1= Area 7									1.573			7-Tu
32		L2= Areas 5,6,7,8									5.133			Sum 5,6,7,8
33		Sr= Kings, Tulare									3.793			Tulare + Kings
34		R= SJV									34.856			SJV Total
35	**2005 Emissions Inventory PM2.5 SIP EI V1.0**													
36	PM2.5 without new controls	L1= Area 7	2.206	0.489		0.060	1.058		1.567				2.695	7-Tu
37		L2= Areas 5,6,7,8	6.520	1.195		0.117	2.693		3.724				7.715	Sum 5,6,7,8
38		Sr= Kings, Tulare	8.041	1.411		0.129	3.816		3.850				19.039	Tulare + Kings
39		R= SJV	35.882	11.206		0.926	21.562		22.810				96.129	SJV Total
40	PM2.5 with new controls	L1= Area 7	2.206	0.489		0.060	1.058		1.567				2.695	7-Tu
41		L2= Areas 5,6,7,8	6.520	1.195		0.117	2.693		3.724				7.715	Sum 5,6,7,8
42		Sr= Kings, Tulare	8.041	1.411		0.129	3.816		3.850				19.039	Tulare + Kings
43		R= SJV	35.882	11.206		0.926	21.562		22.810				96.129	SJV Total
44	NOx without new controls	L1= Area 7								28.598				7-Tu
45		L2= Areas 5,6,7,8								70.246				Sum 5,6,7,8
46		Sr= Kings, Tulare								76.527				Tulare + Kings
47		R= SJV								575.421				SJV Total
48	NOx with new controls	L1= Area 7								28.598				7-Tu
49		L2= Areas 5,6,7,8								70.246				Sum 5,6,7,8
50		Sr= Kings, Tulare								76.527				Tulare + Kings
51		R= SJV								575.421				SJV Total
52	ROG without new controls	L1= Area 7			10.210			18.742						7-Tu
53		L2= Areas 5,6,7,8			20.515			48.919						Sum 5,6,7,8
54		Sr= Kings, Tulare			27.301			44.538						Tulare + Kings
55		R= SJV			157.574			262.243						SJV Total
56	ROG with new controls	L1= Area 7			10.210			18.742						7-Tu
57		L2= Areas 5,6,7,8			20.515			48.919						Sum 5,6,7,8
58		Sr= Kings, Tulare			27.301			44.538						Tulare + Kings
59		R= SJV			157.574			262.243						SJV Total
60	SOx without new controls	L1= Area 7									0.734			7-Tu
61		L2= Areas 5,6,7,8									3.724			Sum 5,6,7,8
62		Sr= Kings, Tulare									2.057			Tulare + Kings
63		R= SJV									26.372			SJV Total
64	SOx with new controls	L1= Area 7									0.734			7-Tu
65		L2= Areas 5,6,7,8									3.724			Sum 5,6,7,8
66		Sr= Kings, Tulare									2.057			Tulare + Kings
67		R= SJV									26.372			SJV Total

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Tulare - Annual** **2002 species mass 23.9** **2005 Design Value 18.2** **2005 Projection**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
68	2005 Rollback Projection									IMS95				
69	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2005 L1/2000 L1) * LINE 4	0.4	0.9	0.1	0.1	0.3	0.1	0.7	2.9	0.3		0.1	
70	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2005 L2/2000 L2) * LINE 5	0.3	0.6	0.1	0.1	0.2	0.0	0.5	2.1	0.4		0.1	
71	Sub regional Contribution	=(2005 Sr1/2000 Sr2) * LINE 6	0.2	0.4	0.1	0.0	0.2	0.0	0.2	1.1	0.1		0.1	
72	Regional Contribution	=(2005 R/2000 R) * LINE 7	0.3	1.0	0.2	0.1	0.3	0.1	0.5	2.9	0.5		0.2	
73	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.3		1.1	1.4	0.3	0.0	0.0	
74	2005 projected Annual Result	21.73	1.3	2.8	0.4	0.3	1.3	0.2	2.9	10.4	1.6	0.0	0.4	
75	2005 Rollback Projection with additional controls									IMS95				
76	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2005 L1/2000 L1) * LINE 4	0.4	0.9	0.1	0.1	0.3	0.1	0.7	2.9	0.3		0.1	
77	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2005 L2/2000 L2) * LINE 5	0.3	0.6	0.1	0.1	0.2	0.0	0.5	2.1	0.4		0.1	
78	Sub regional Contribution	=(2005 Sr1/2000 Sr2) * LINE 6	0.2	0.4	0.1	0.0	0.2	0.0	0.2	1.1	0.1		0.1	
79	Regional Contribution	=(2005 R/2000 R) * LINE 7	0.3	1.0	0.2	0.1	0.3	0.1	0.5	2.9	0.5		0.2	
80	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.3		1.1	1.4	0.3	0.0	0.0	
81	2005 projected Annual Result	21.73	1.3	2.8	0.4	0.3	1.3	0.2	2.9	10.4	1.6	0.0	0.4	
82														
83	2005 projected Annual Result	21.44	linear nitrate projection							Linear				
84	Modeling comparisons	21.73	IMS95 nitrate modeling							2.8				
85	Current 2005 Design value = 18.2	21.70	CMAQ nitrate modeling							2.0				
86		21.62	Average of all three							1.1				
87		21.71	Average of CMAQ and IMS95							2.8				
88										8.7				
89										CMAQ				
90										2.8				
91	RRF .82									2.1				
92										1.1				
93										2.9				
94										8.9				
95														
96	**2005 projected Annual Result**	21.71	1.287334943	2.82368161	0.4302725	0.305429383	1.294011541	0.215993433	2.948639539	10.35935015	1.61029249	0	0.437984745	
97	**Used for Start concentration M1 Tulare 2005C-2014**	21.71299034		3.25395411	Sum		1.510004973	Sum		CMAQ IMS95 Average				
98				3.25395411			1.509544669							
99	end													

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Tulare - Annual 2002 species mass 23.9 2005 Design Value 18.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
2	Line1 Source Contribution from Analysis	From CMB monthly analysis Feb 2000 to Dec 2000, adding January 2001 episode for chemistry equivalent to annual design value	From CMB	From CMB		From CMB	Estimated portion of mass included in Vegetative Burning =30%		From CMB minus estimated Organic Carbon from other sources	From CMB	From CMB	From CMB, if present	Unaccounted mass from CMB, if any.	
3	LINE 1	24.08	1.41	3.60		0.25	1.51		3.52	10.96	2.34	0.00	0.49	
4	Line 2 Natural and Transport Contribution, see Protocol	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	0, no natural background, transport estimated at 0		0, no natural background, transport estimated at 0	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions. = 20%		Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic. =20% + 10%	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	Adjusted to PMF result of 13% from 10% estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	100% because marine salts are a natural emission	0, no additional background estimate for unexplained mass	
5	LINE 2	3.23	0.1	0.0		0.0	0.3		1.1	1.4	0.3			
6	Line 3 Net for Rollback	Net for Rollback, default percentages adjustable for episode characteristics, applicable to all columns except as indicated.										Removed entirely from rollback, added back to result		
7	LINE 3	20.85	1.3	3.6		0.3	1.2		2.5	9.5	2.04	0.0	0.5	
8	Line 4 Local Contribution PM2.5 Primary Emissions Area of Influence	Source contribution from smallest area of influence, representative of large particle primary source area, includes all PM size emissions in the area - Rolled back against local area of influence emission estimates	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net, non-linear rollback	Mass adjusted influence of 50% PM2.5 of net		Mass adjusted influence of 50% PM2.5 of net	
9	LINE 4	6.50	0.379	1.1		0.094	0.4		0.838	3.056	0.591		0.100	
10	Line 5 Local Contribution Primary and Secondary Area of Influence of PM2.5	Rolled back against local PM2.5 area of influence emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net, non-linear rollback	Mass adjusted influence of 30% PM2.5 of net		Mass adjusted influence of 30% PM2.5 of net	
11	LINE 5	4.98	0.347	0.80		0.055	0.26		0.633	2.216	0.578		0.088	
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13	LINE 6	2.76	0.215	0.47		0.030	0.18		0.325	1.205	0.214		0.111	
14	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net, non-linear rollback	Mass adjusted influence of 5% PM2.5 of net		Mass adjusted influence of 5% PM2.5 of net	
15	LINE 7	6.61	0.326	1.26		0.071	0.39		0.666	3.059	0.654		0.194	
16	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	Paved roads+ Unpaved roads+ Off road mobile+ Farm operations+ Construction+ Windblown	PM, ROG & CO onroad mobile+ PM, ROG & CO 860 offroad equipment PM, ROG & CO 870 farm equipment CO presumed to add minimal mass		Tire and brake wear as predicted by EMFAC	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM & CO Area, Stationary CO presumed to add minimal mass		PM & CO residential burning PM & CO waste burning and disposal PM cooking PM & CO fires CO presumed to add minimal mass	Total E.I. NOx (+ bacterial soil NOx estimate removed as natural background)	Total SOx	None, natural emission from the ocean, bay and delta waters	Total PM2.5	
17	What Row to use for Lookup Function ---------->		2	5	6	7	8	9	10	14	15	N/A	16	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Tulare - Annual** **2002 species mass 23.9** **2005 Design Value 18.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
18	2000 Emissions Inventory	(area of influence emissions inventory, each on a separate line for automated calculations)												**INDEX**
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21		Sr= Kings, Tulare	8.947	1.540		0.106	3.686		5.040				21.329	Tulare + Kings
22		R= SJV	40.682	12.272		0.746	23.281		30.963				112.405	SJV Total
23	NOx	L1= Area 7								31.743				7-Tu
24		L2= Areas 5,6,7,8								76.700				Sum 5,6,7,8
25		Sr= Kings, Tulare								83.401				Tulare + Kings
26		R= SJV								635.349				SJV Total
27	ROG	L1= Area 7			13.231			15.519						7-Tu
28		L2= Areas 5,6,7,8			25.513			40.291						Sum 5,6,7,8
29		Sr= Kings, Tulare			32.263			36.424						Tulare + Kings
30		R= SJV			198.230			227.374						SJV Total
31	SOx	L1= Area 7									1.573			7-Tu
32		L2= Areas 5,6,7,8									5.133			Sum 5,6,7,8
33		Sr= Kings, Tulare									3.793			Tulare + Kings
34		R= SJV									34.856			SJV Total
35	2014 Emissions Inventory PM2.5 SIP EI V1.0													
36	PM2.5 without new controls	L1= Area 7	2.404	0.127		0.077	0.744		0.855				2.531	7-Tu
37		L2= Areas 5,6,7,8	6.993	0.295		0.147	2.216		1.991				7.287	Sum 5,6,7,8
38		Sr= Kings, Tulare	8.642	0.345		0.163	3.254		2.324				16.294	Tulare + Kings
39		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
40	PM2.5 with new controls	L1= Area 7	2.404	0.127		0.077	0.744		0.855				2.531	7-Tu
41		L2= Areas 5,6,7,8	6.993	0.295		0.147	2.216		1.991				7.287	Sum 5,6,7,8
42		Sr= Kings, Tulare	8.642	0.345		0.163	3.254		2.324				16.294	Tulare + Kings
43		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
44	NOx without new controls	L1= Area 7								19.407				7-Tu
45		L2= Areas 5,6,7,8								49.575				Sum 5,6,7,8
46		Sr= Kings, Tulare								39.979				Tulare + Kings
47		R= SJV								289.340				SJV Total
48	NOx with new controls	L1= Area 7								19.407				7-Tu
49		L2= Areas 5,6,7,8								49.575				Sum 5,6,7,8
50		Sr= Kings, Tulare								39.979				Tulare + Kings
51		R= SJV								289.340				SJV Total
52	ROG without new controls	L1= Area 7			6.666			19.476						7-Tu
53		L2= Areas 5,6,7,8			13.707			50.401						Sum 5,6,7,8
54		Sr= Kings, Tulare			19.092			46.210						Tulare + Kings
55		R= SJV			104.447			258.527						SJV Total
56	ROG with new controls	L1= Area 7			6.666			19.476						7-Tu
57		L2= Areas 5,6,7,8			13.707			50.401						Sum 5,6,7,8
58		Sr= Kings, Tulare			19.092			46.210						Tulare + Kings
59		R= SJV			104.447			258.527						SJV Total
60	SOx without new controls	L1= Area 7									0.561			7-Tu
61		L2= Areas 5,6,7,8									3.572			Sum 5,6,7,8
62		Sr= Kings, Tulare									1.595			Tulare + Kings
63		R= SJV									23.925			SJV Total
64	SOx with new controls	L1= Area 7									0.561			7-Tu
65		L2= Areas 5,6,7,8									3.572			Sum 5,6,7,8
66		Sr= Kings, Tulare									1.595			Tulare + Kings
67		R= SJV									23.925			SJV Total

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Tulare - Annual** **2002 species mass 23.9** **2005 Design Value 18.2**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
68	2014 Rollback Projection									IMS95				
69	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2000 L1) * LINE 4	0.4	0.2	0.1	0.1	0.2	0.1	0.4	2.3	0.2		0.1	
70	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2000 L2) * LINE 5	0.3	0.2	0.1	0.1	0.2	0.0	0.3	1.7	0.4		0.1	
71	Sub regional Contribution	=(2014 Sr1/2000 Sr2) * LINE 6	0.2	0.1	0.0	0.0	0.1	0.0	0.1	0.8	0.1		0.1	
72	Regional Contribution	=(2014 R/2000 R) * LINE 7	0.3	0.2	0.1	0.1	0.2	0.1	0.3	1.9	0.4		0.1	
73	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.3		1.1	1.4	0.3	0.0	0.0	
74	2014 projected Annual Result	16.09	1.4	0.7	0.3	0.4	1.1	0.2	2.1	8.1	1.5	0.0	0.4	
75	2014 Rollback Projection with additional controls									IMS95				
76	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2000 L1) * LINE 4	0.4	0.2	0.1	0.1	0.2	0.1	0.4	2.3	0.2		0.1	
77	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2000 L2) * LINE 5	0.3	0.2	0.1	0.1	0.2	0.0	0.3	1.7	0.4		0.1	
78	Sub regional Contribution	=(2014 Sr1/2000 Sr2) * LINE 6	0.2	0.1	0.0	0.0	0.1	0.0	0.1	0.8	0.1		0.1	
79	Regional Contribution	=(2014 R/2000 R) * LINE 7	0.3	0.2	0.1	0.1	0.2	0.1	0.3	1.9	0.4		0.1	
80	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.3		1.1	1.4	0.3	0.0	0.0	
81	2014 projected Annual Result	16.09	1.4	0.7	0.3	0.4	1.1	0.2	2.1	8.1	1.5	0.0	0.4	
82										Linear				
83	2014 projected Annual Result	14.67	linear nitrate projection							1.9				
84	Modeling comparisons	16.09	IMS95 nitrate modeling							1.4				
85	Current 2005 Design value = 18.2	15.94	CMAQ nitrate modeling							0.6				
86		15.57	Average of all three							1.4				
87		16.02	Average of CMAQ and IMS95							5.3				
88														
89										CMAQ				
90										2.2				
91										1.7				
92										0.8				
93										1.9				
94										6.5				
95														
96	2014 Final Species Mass	16.02	1.37	0.70	0.29	0.38	1.08	0.22	2.11	8.04	1.46	0.00	0.38	
97										8.0398534				

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Fresno - Annual PMF** **2004-2005 species mass 17.91** **2005 Design value 17.2** **PMF 2003-2006 mass 22.03**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon** **Industrial Primary PM2.5** **Ind. SOA** **VOC artifact** **Artifact mass included**		**Vegetative Burning**	**Ammonium Nitrate including associated water**	**Ammonium Sulfate including associated water**	**Marine**	**Unassigned**	
2	Line1 Source Contribution from Analysis	PMF Analysis of 2003-2006 data minus OC artifact −3.35	From PMF	From PMF		Not included in PMF	Sum of Industry and portion of aged aerosol from PMF		From PMF	From PMF, secondary nitrate plus portion of aged aerosol	From PMF, secondary sulfate plus portion of aged aerosol	From PMF	Unaccounted mass from PMF	
3	LINE 1	22.03	0.66	4.48			3.82		1.62	8.90	2.28		0.27	
4	Line 2 Natural and Transport Contribution, see Protocol	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	0, no natural background, transport estimated at 0		0, no natural background, transport estimated at 0	PMF Aged aerosol 1&2. Removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions.		see background sheet for numerical estimate. 30% removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic.	PMF Aged aerosol 1&2. Removed prior to rollback as not subject to local control, added back to projected future concentrations	PMF Aged aerosol 1&2. Removed prior to rollback as not subject to local control, added back to projected future concentrations	100% because marine salts are a natural emission	0, no additional background estimate for unexplained mass	
5	LINE 2	2.54	0.1	0.0		0.0	0.5		0.5	1.2	0.3			
6	Line 3 Net for Rollback	Net for Rollback, default percentages adjustable for episode characteristics, applicable to all columns except as indicated.										Removed entirely from rollback, added back to result		
7	LINE 3	19.49	0.6	4.5		0.0	3.3		1.1	7.7	2.0	0.0	0.3	
8	Line 4 Local Contribution PM2.5 Primary Emissions Area of Influence	Source contribution from smallest area of influence, representative of large particle primary source area, includes all PM size emissions in the area - Rolled back against local area of influence emission estimates	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net, non-linear rollback	Mass adjusted influence of 50% PM2.5 of net		Mass adjusted influence of 50% PM2.5 of net	
9	LINE 4	7.87	0.163	2.0		0.000	1.2		0.353	3.216	0.900		0.057	
10	Line 5 Local Contribution Primary and Secondary Area of Influence of PM2.5	Rolled back against local PM2.5 area of influence emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net, non-linear rollback	Mass adjusted influence of 30% PM2.5 of net		Mass adjusted influence of 30% PM2.5 of net	
11	LINE 5	4.01	0.125	0.88		0.000	0.66		0.272	1.597	0.441		0.036	
12	Line 6 Sub regional Contribution Primary and Secondary PM2.5 (Line 5 and Line 6 are the same area for annual evaluation but may differ for episode evaluation)	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net, non-linear rollback	Mass adjusted influence of 15% PM2.5 of net		Mass adjusted influence of 15% PM2.5 of net	
13	LINE 6	3.41	0.149	0.64		0.000	0.63		0.302	1.254	0.354		0.087	
14	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net, non-linear rollback	Mass adjusted influence of 5% PM2.5 of net		Mass adjusted influence of 5% PM2.5 of net	
15	LINE 7	4.20	0.157	0.95		0.000	0.85		0.206	1.663	0.285		0.090	
16	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	Paved roads+ Unpaved roads+ Off road mobile+ Farm operations+ Construction+ Windblown	PM, ROG & CO onroad mobile+ PM, ROG & CO 860 offroad equipment PM, ROG & CO 870 farm equipment CO presumed to add minimal mass		Tire and brake wear as predicted by EMFAC	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM & CO Area, Stationary CO presumed to add minimal mass		PM & CO residential burning PM & CO waste burning and disposal PM cooking PM & CO fires CO presumed to add minimal mass	Total E.I. NOx (+ bacterial soil NOx estimate removed as natural background)	Total SOx	None, natural emission from the ocean, bay and delta waters	Total PM2.5	
17	What Row to use for Lookup Function ---------->		2	5	6	7	8	9	10	14	15	N/A	16	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Fresno - Annual PMF** **2004-2005 species mass 17.91** **2005 Design value 17.2** **PMF 2003-2006 mass 22.03**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon** **Industrial Primary PM2.5** **Ind. SOA** **VOC artifact** **Artifact mass included**		**Vegetative Burning**	**Ammonium** **Nitrate** **including associated water**	**Ammonium** **Sulfate** **including associated water**	**Marine**	**Unassigned**	
18	2005 Emissions Inventory	(area of influence emissions inventory, each on a separate line for automated calculations)												**INDEX**
19	PM2.5	L1= Area 3	1.860	1.190		0.123	1.478		1.956				3.051	3-Fr
20		L2= Areas 3,4	4.756	1.746		0.174	2.782		5.021				6.502	Sum 3,4
21		Sr= Fresno, Madera	11.369	2.516		0.237	5.304		11.157				31.061	Fresno + Madera
22		R= SJV	35.882	11.206		0.926	21.562		22.810				96.129	SJV Total
23	NOx	L1= Area 3								55.645				3-Fr
24		L2= Areas 3,4								92.111				Sum 3,4
25		Sr= Fresno, Madera								144.581				Fresno + Madera
26		R= SJV								575.421				SJV Total
27	ROG	L1= Area 3			16.047			22.020						3-Fr
28		L2= Areas 3,4			24.121			45.182						Sum 3,4
29		Sr= Fresno, Madera			43.515			73.459						Fresno + Madera
30		R= SJV			157.574			262.243						SJV Total
31	SOx	L1= Area 3									4.156			3-Fr
32		L2= Areas 3,4									6.795			Sum 3,4
33		Sr= Fresno, Madera									10.896			Fresno + Madera
34		R= SJV									26.372			SJV Total
35	2014 Emissions Inventory PM2.5 SIP EI V1.0													
36	PM2.5 without new controls	L1= Area 3	1.882	0.278		0.149	1.068		1.193				2.160	3-Fr
37		L2= Areas 3,4	4.885	0.426		0.217	2.110		2.671				5.310	Sum 3,4
38		Sr= Fresno, Madera	11.672	0.615		0.298	4.003		6.342				23.349	Fresno + Madera
39		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
40	PM2.5 with new controls	L1= Area 3	1.882	0.278		0.149	1.068		1.193				2.160	3-Fr
41		L2= Areas 3,4	4.885	0.426		0.217	2.110		2.671				5.310	Sum 3,4
42		Sr= Fresno, Madera	11.672	0.615		0.298	4.003		6.342				23.349	Fresno + Madera
43		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
44	NOx without new controls	L1= Area 3								36.121				3-Fr
45		L2= Areas 3,4								63.236				Sum 3,4
46		Sr= Fresno, Madera								73.878				Fresno + Madera
47		R= SJV								289.340				SJV Total
48	NOx with new controls	L1= Area 3								36.121				3-Fr
49		L2= Areas 3,4								63.236				Sum 3,4
50		Sr= Fresno, Madera								73.878				Fresno + Madera
51		R= SJV								289.340				SJV Total
52	ROG without new controls	L1= Area 3			10.391			21.564						3-Fr
53		L2= Areas 3,4			15.979			44.378						Sum 3,4
54		Sr= Fresno, Madera			29.774			72.358						Fresno + Madera
55		R= SJV			104.447			258.527						SJV Total
56	ROG with new controls	L1= Area 3			10.391			21.564						3-Fr
57		L2= Areas 3,4			15.979			44.378						Sum 3,4
58		Sr= Fresno, Madera			29.774			72.358						Fresno + Madera
59		R= SJV			104.447			258.527						SJV Total
60	SOx without new controls	L1= Area 3									4.311			3-Fr
61		L2= Areas 3,4									7.046			Sum 3,4
62		Sr= Fresno, Madera									10.877			Fresno + Madera
63		R= SJV									23.925			SJV Total
64	SOx with new controls	L1= Area 3									4.311			3-Fr
65		L2= Areas 3,4									7.046			Sum 3,4
66		Sr= Fresno, Madera									10.877			Fresno + Madera
67		R= SJV									23.925			SJV Total

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Fresno - Annual PMF** **2004-2005 species mass 17.91** **2005 Design value 17.2** **PMF 2003-2006 mass 22.03**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon** **Industrial Primary PM2.5** **Ind. SOA** **VOC artifact** **Artifact mass included**		**Vegetative Burning**	**Ammonium** **Nitrate** **including associated water**	**Ammonium** **Sulfate** **including associated water**	**Marine**	**Unassigned**	
68	2014 Rollback Projection									IMS95				
69	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2005 L1) * LINE 4	0.2	0.4	0.2	0.0	0.7	0.2	0.2	2.5	0.9		0.0	
70	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2005 L2) * LINE 5	0.1	0.2	0.1	0.0	0.4	0.1	0.1	1.3	0.5		0.0	
71	Sub regional Contribution	=(2014 Sr1/2005 Sr2) * LINE 6	0.2	0.1	0.1	0.0	0.4	0.1	0.2	0.8	0.4		0.1	
72	Regional Contribution	=(2014 R/2005 R) * LINE 7	0.2	0.2	0.1	0.0	0.6	0.1	0.1	1.1	0.3		0.1	
73	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.5		0.5	1.2	0.3	0.0	0.0	
74	2014 projected Annual Result	15.64	0.7	0.9	0.4	0.0	2.6	0.5	1.1	6.9	2.3	0.0	0.2	
75	2014 Rollback Projection with additional controls									IMS95				
76	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2005 L1) * LINE 4	0.2	0.4	0.2	0.0	0.7	0.2	0.2	2.5	0.9		0.0	
77	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2005 L2) * LINE 5	0.1	0.2	0.1	0.0	0.4	0.1	0.1	1.3	0.5		0.0	
78	Sub regional Contribution	=(2014 Sr1/2005 Sr2) * LINE 6	0.2	0.1	0.1	0.0	0.4	0.1	0.2	0.8	0.4		0.1	
79	Regional Contribution	=(2014 R/2005 R) * LINE 7	0.2	0.2	0.1	0.0	0.6	0.1	0.1	1.1	0.3		0.1	
80	+ Natural Background contribution	= LINE 2	0.1	0.0		0.0	0.5		0.5	1.2	0.3	0.0	0.0	
81	2014 projected Annual Result	15.64	0.7	0.9	0.4	0.0	2.6	0.5	1.1	6.9	2.3	0.0	0.2	
82										Linear				
83	2014 projected Annual Result	14.62	linear nitrate projection	1.4						2.1				
84	Modeling comparisons	15.64	IMS95 nitrate modeling							1.1				
85	Current 2005 Design value = 17.2	15.53	CMAQ nitrate modeling							0.6				
86		15.26	Average of all three							0.8				
87		15.59	Average of CMAQ and IMS95							4.7				
88														
89	Fresno County Receptor SMAT Reduction RRF	RRF = 2005 calculated Conc./ 2014 Conc.								CMAQ				
90	Design Value 17.2	0.66	linear nitrate projection							2.4				
91	RRF .832	0.71	IMS95 nitrate modeling							1.2				
92	FY Value = DV * RRF	0.70	CMAQ nitrate modeling							0.8				
93	12.167	0.69	Average of all three							1.1				
94	Target	0.707	Average of CMAQ and IMS95							5.6				
95	12.167													
96	0.707	15.59	RRF Species Target											
97														
98										Average CMAQ IMS95				
99	2014 projected Annual Result	15.59	0.67758636	0.90833155	0.4427907	0	2.627531078	0.486658994	1.134026669	6.799942815	2.302887955	0	0.20550620	
100														
101														
102	**County Specific Reduction Target Calculator**													
103	NOx County Specific Target Percentage Reductions	0%												
104	Calculator entry line NOx Tons reduction	0.00												
105	**SJV NOx Total EI in 2014 with adjustments**	289.34												
106	**NOx Tons required, Fresno-Madera**	0.00												
107	**Fresno-Madera County NOx EI (J46)**	73.88												
108	**Percent reduction Fresno-Madera EI**	0%												
109														
110														
111	**Valleywide Reduction Target Calculator**													
112	NOx Regional Target Percentage Reductions	0%												
113	Calculator entry line NOx Tons reduction	0.00												
114	**SJV NOx Total EI in 2014 with adjustments**	289.34												
115	**NOx Valleywide tons required**	0.00												
116	**NOx tons required, Fresno-Madera**	0.00												
117	**Fresno-Madera County NOx EI (J46)**	73.88												
118	**Percent reduction Fresno-Madera EI**	0%												

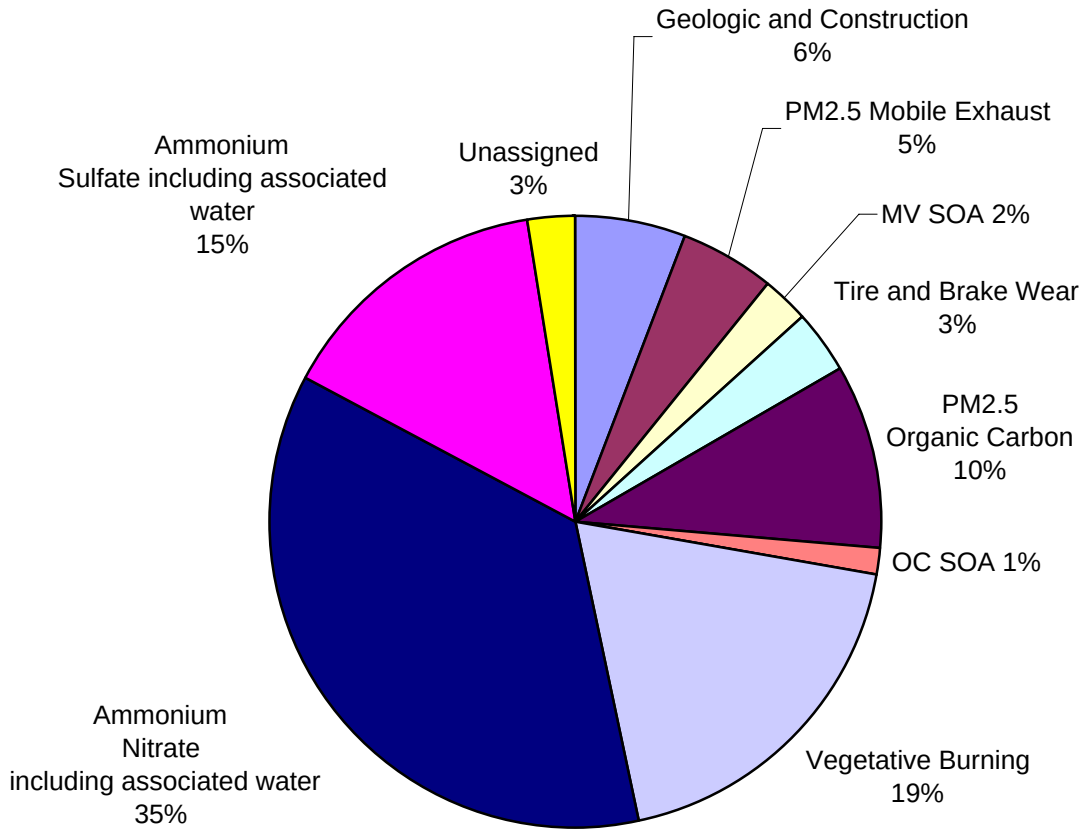
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kern - Annual PMF** **2004-2005 species mass 20.71** **2005 Design Value 18.9** **PMF 2003-2006 mass 24.06**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon** **Industrial Primary PM2.5** **Ind. SOA** **VOC artifact** **Artifact mass included**		**Vegetative Burning**	**Ammonium** **Nitrate** **including associated water**	**Ammonium** **Sulfate** **including associated water**	**Marine**	**Unassigned**	
2	Line1 Source Contribution from Analysis	PMF Analysis of 2003-2006 data	From PMF	From PMF		Not included in PMF	Sum of Industry and portion of aged aerosol from PMF		From PMF	From PMF, secondary nitrate plus portion of aged aerosol	From PMF, secondary sulfate plus portion of aged aerosol	From PMF	Unaccounted mass from PMF	
3	LINE 1	24.06	1.78	2.70			3.72		1.50	10.58	3.41		0.37	
4	Line 2 Natural and Transport Contribution, see Protocol	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	Estimate (see Protocol) removed prior to rollback as not subject to local control, added back to projected future concentrations	0, no natural background, transport estimated at 0		0, no natural background, transport estimated at 0	PMF Aged aerosol 1&2. Removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions.		see background sheet for numerical estimate. 30% removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic.	PMF Aged aerosol 1&2. Removed prior to rollback as not subject to local control, added back to projected future concentrations	PMF Aged aerosol 1&2. Removed prior to rollback as not subject to local control, added back to projected future concentrations	100% because marine salts are a natural emission	0, no additional background estimate for unexplained mass	
5	LINE 2	3.05	0.2	0.0		0.0	0.6		0.5	1.4	0.5			
6	Line 3 Net for Rollback	Net for Rollback, default percentages adjustable for episode characteristics, applicable to all columns except as indicated.								Net for non-linear rollback, default percentages adjustable for episode characteristics		Removed entirely from rollback, added back to result		
7	LINE 3	21.01	1.6	2.7		0.0	3.2		1.1	9.2	3.0	0.0	0.4	
8	Line 4 Local Contribution PM2.5 Primary Emissions Area of Influence	Source contribution from smallest area of influence, representative of large particle primary source area, includes all PM size emissions in the area - Rolled back against local area of influence emission estimates	Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 50% PM2.5 of net	Mass adjusted influence of 50% PM2.5 of net, non-linear rollback	Mass adjusted influence of 50% PM2.5 of net		Mass adjusted influence of 50% PM2.5 of net	
9	LINE 4	9.87	0.532	1.6		0.000	1.3		0.437	4.959	0.981		0.106	
10	Line 5 Local Contribution Primary and Secondary Area of Influence of PM2.5	Rolled back against local PM2.5 area of influence emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 30% PM2.5 of net	Mass adjusted influence of 30% PM2.5 of net, non-linear rollback	Mass adjusted influence of 30% PM2.5 of net		Mass adjusted influence of 30% PM2.5 of net	
11	LINE 5	5.00	0.405	0.57		0.000	0.87		0.202	1.986	0.867		0.109	
12	Line 6 Sub regional Contribution Primary and Secondary PM2.5 (Line 5 and Line 6 are the same area for annual evaluation but may differ for episode evaluation)	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 15% PM2.5 of net	Mass adjusted influence of 15% PM2.5 of net, non-linear rollback	Mass adjusted influence of 15% PM2.5 of net		Mass adjusted influence of 15% PM2.5 of net	
13	LINE 6	2.50	0.203	0.28		0.000	0.43		0.101	0.993	0.434		0.054	
14	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net using direct PM2.5 emisions		Mass adjusted influence of 5% PM2.5 of net	Mass adjusted influence of 5% PM2.5 of net, non-linear rollback	Mass adjusted influence of 5% PM2.5 of net		Mass adjusted influence of 5% PM2.5 of net	
15	LINE 7	3.64	0.462	0.30		0.000	0.56		0.310	1.232	0.678		0.101	
16	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	Paved roads+ Unpaved roads+ Off road mobile+ Farm operations+ Construction+ Windblown	PM, ROG & CO onroad mobile+ PM, ROG & CO 860 offroad equipment PM, ROG & CO 870 farm equipment CO presumed to add minimal mass		Tire and brake wear as predicted by EMFAC	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM & CO Area, Stationary CO presumed to add minimal mass		PM & CO residential burning PM & CO waste burning and disposal PM cooking PM & CO fires CO presumed to add minimal mass	Total E.I. NOx (+ bacterial soil NOx estimate removed as natural background)	Total SOx	None, natural emission from the ocean, bay and delta waters	Total PM2.5	
17	What Row to use for Lookup Function ---------->		2	5	6	7	8	9	10	14	15	N/A	16	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kern - Annual PMF** **2004-2005 species mass 20.71** **2005 Design Value 18.9** **PMF 2003-2006 mass 24.06**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon** **Industrial Primary PM2.5** **Ind. SOA** **VOC artifact** **Artifact mass included**		**Vegetative Burning**	**Ammonium** **Nitrate** **including associated water**	**Ammonium** **Sulfate** **including associated water**	**Marine**	**Unassigned**	
18	2005 Emissions Inventory	(area of influence emissions inventory, each on a separate line for automated calculations)												**INDEX**
19	PM2.5	L1= 12	2.070	2.939		0.171	2.513		1.607				5.009	12-Ke
20		L2= Kern	5.252	3.560		0.204	5.603		2.480				17.185	Kern
21		Sr= Kern	5.252	3.560		0.204	5.603		2.480				17.185	Kern
22		R= SJV	35.882	11.206		0.926	21.562		22.810				96.129	SJV Total
23	NOx	L1= 12								115.821				12-Ke
24		L2= Kern								154.600				Kern
25		Sr= Kern								154.600				Kern
26		R= SJV								575.421				SJV Total
27	ROG	L1= 12			20.015			31.951						12-Ke
28		L2= Kern			27.421			65.418						Kern
29		Sr= Kern			27.421			65.418						Kern
30		R= SJV			157.574			262.243						SJV Total
31	SOx	L1= 12									1.906			12-Ke
32		L2= Kern									5.622			Kern
33		Sr= Kern									5.622			Kern
34		R= SJV									26.372			SJV Total
35	2014 Emissions Inventory PM2.5 SIP EI V1.0													
36	PM2.5 without new controls	L1= 12	2.188	0.679		0.201	2.095		0.941				2.867	12-Ke
37		L2= Kern	5.551	0.822		0.241	4.671		1.344				13.078	Kern
38		Sr= Kern	5.551	0.822		0.241	4.671		1.344				13.078	Kern
39		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
40	PM2.5 with new controls	L1= 12	2.188	0.679		0.201	2.095		0.941				2.867	12-Ke
41		L2= Kern	5.551	0.822		0.241	4.671		1.344				13.078	Kern
42		Sr= Kern	5.551	0.822		0.241	4.671		1.344				13.078	Kern
43		R= SJV	37.776	2.694		1.109	16.889		12.820				75.109	SJV Total
44	NOx without new controls	L1= 12								78.683				12-Ke
45		L2= Kern								77.249				Kern
46		Sr= Kern								77.249				Kern
47		R= SJV								289.340				SJV Total
48	NOx with new controls	L1= 12								78.683				12-Ke
49		L2= Kern								77.249				Kern
50		Sr= Kern								77.249				Kern
51		R= SJV								289.340				SJV Total
52	ROG without new controls	L1= 12			13.142			28.703						12-Ke
53		L2= Kern			18.102			58.768						Kern
54		Sr= Kern			18.102			58.768						Kern
55		R= SJV			104.447			258.527						SJV Total
56	ROG with new controls	L1= 12			13.142			28.703						12-Ke
57		L2= Kern			18.102			58.768						Kern
58		Sr= Kern			18.102			58.768						Kern
59		R= SJV			104.447			258.527						SJV Total
60	SOx without new controls	L1= 12									1.264			12-Ke
61		L2= Kern									4.263			Kern
62		Sr= Kern									4.263			Kern
63		R= SJV									23.925			SJV Total
64	SOx with new controls	L1= 12									1.264			12-Ke
65		L2= Kern									4.263			Kern
66		Sr= Kern									4.263			Kern
67		R= SJV									23.925			SJV Total

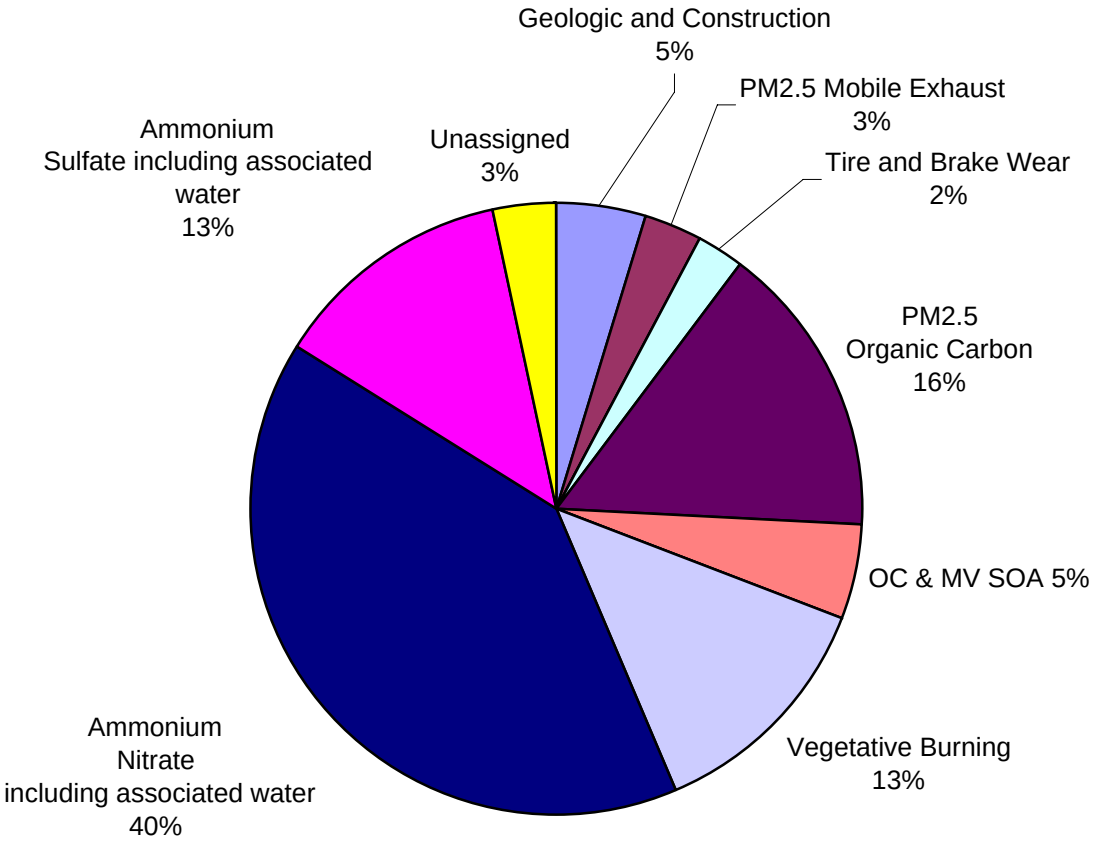
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Kern - Annual PMF** **2004-2005 species mass 20.71** **2005 Design Value 18.9** **PMF 2003-2006 mass 24.06**	**General Note**	**Geologic and Construction**	**Mobile Exhaust**		**Tire and Brake Wear**	**Organic Carbon** **Industrial Primary PM2.5** **Ind. SOA** **VOC artifact** **Artifact mass included**		**Vegetative Burning**	**Ammonium** **Nitrate** **including associated water**	**Ammonium** **Sulfate** **including associated water**	**Marine**	**Unassigned**	
68	2014 Rollback Projection									IMS95				
69	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2005 L1) * LINE 4	0.6	0.3	0.2	0.0	0.9	0.2	0.3	3.9	0.7		0.1	
70	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2005 L2) * LINE 5	0.4	0.1	0.1	0.0	0.6	0.1	0.1	1.3	0.7		0.1	
71	Sub regional Contribution	=(2014 Sr1/2005 Sr2) * LINE 6	0.2	0.1	0.0	0.0	0.3	0.1	0.1	0.7	0.3		0.0	
72	Regional Contribution	=(2014 R/2005 R) * LINE 7	0.5	0.1	0.0	0.0	0.4	0.1	0.2	0.8	0.6		0.1	
73	+ Natural Background contribution	= LINE 2	0.2	0.0		0.0	0.6		0.5	1.4	0.5	0.0	0.0	
74	2014 projected Annual Result	18.01	1.9	0.5	0.3	0.0	2.8	0.4	1.0	8.1	2.7	0.0	0.3	
75	2014 Rollback Projection with additional controls									IMS95				
76	Local Contribution PM2.5 Primary Emissions Area of Influence	=(2014 L1/2005 L1) * LINE 4	0.6	0.3	0.2	0.0	0.9	0.2	0.3	3.9	0.7		0.1	
77	Local Contribution Primary and Secondary Area of Influence of PM2.5	=(2014 L2/2005 L2) * LINE 5	0.4	0.1	0.1	0.0	0.6	0.1	0.1	1.3	0.7		0.1	
78	Sub regional Contribution	=(2014 Sr1/2005 Sr2) * LINE 6	0.2	0.1	0.0	0.0	0.3	0.1	0.1	0.7	0.3		0.0	
79	Regional Contribution	=(2014 R/2005 R) * LINE 7	0.5	0.1	0.0	0.0	0.4	0.1	0.2	0.8	0.6		0.1	
80	+ Natural Background contribution	= LINE 2	0.2	0.0		0.0	0.6		0.5	1.4	0.5	0.0	0.0	
81	2014 projected Annual Result	18.01	1.9	0.5	0.3	0.0	2.8	0.4	1.0	8.1	2.7	0.0	0.3	
82										Linear				
83	2014 projected Annual Result	16.78	linear nitrate projection							3.4				
84	Modeling comparisons	18.01	IMS95 nitrate modeling							1.0				
85	Current 2005 Design value = 18.9	17.87	CMAQ nitrate modeling							0.5				
86		17.55	Average of all three							0.6				
87		17.94	Average of CMAQ and IMS95							5.5				
88														
89	Kern County Receptor SMAT Reduction RRF	RRF = 2005 Conc./ 2014 Conc.								CMAQ				
90	Design Value 18.9	0.70	linear nitrate projection							3.8				
91	RRF .837	0.75	IMS95 nitrate modeling							1.3				
92	FY Value = DV * RRF	0.74	CMAQ nitrate modeling							0.6				
93	14.091	0.73	Average of all three							0.8				
94	Target	0.746	Average of CMAQ and IMS95							6.6				
95	14.988													
96	0.793	19.08	RRF Species Target											
97														
98										Average CMAQ IMS95				
99	2014 projected Annual Result	17.94	1.869332595	0.5325309	0.2666556	0	2.773392762	0.433499996	1.044189969	8.049964493	2.70712669	0	0.26369806	
100														
101														
102	**County Specific Reduction Target Calculator**													
103	NOx County Specific Target Percentage Reductions	0%												
104	Calculator entry line NOx Tons reduction	0.00												
105	**SJV NOx Total EI in 2014 with adjustments**	289.34												
106	**NOx Tons required, Kern**	0.00												
107	**Kern County NOx EI (J46)**	77.25												
108	**Percent reduction Kern EI**	0%												
109														
110														
111	**Valleywide Reduction Target Calculator**													
112	NOx Regional Target Percentage Reductions	0%												
113	Calculator entry line NOx Tons reduction	0.00												
114	**SJV NOx Total EI in 2014 with adjustments**	289.34												
115	**NOx Valleywide tons required**	0.00												
116	**NOx tons required, Kern**	0.00												
117	**Kern County NOx EI (J46)**	77.25												
118	**Percent reduction Kern**	0%												

	A	B	C	D	E	F
1	**PMF Mass removed as artifact for PMF source identification**					
2	**OC mass added back to receptor evaluation for SMAT**					
3						
4	**Fresno**				**Mass removed**	**Restored**
5		**Input data**		**Raw Data**	**for PMF analysis**	**OC Value**
6	15.4936121	average mass all rows				
7	19.6352518	average PM2.5 obs				
8	4.53016187	average OC obs	6.921836842	Fresno average OC Obs	2.391674972	2.391675
9	0.94853957	average EC obs	1.001954887	Fresno average EC Obs		
10	5.47870144	total average OC/EC	7.923791729	total average OC/EC		
11						
12						
13	**Bakersfield**				**Mass removed**	**Restored**
14		**Input data**		**Raw Data**	**for PMF analysis**	**OC Value**
15	16.5530152	average mass all rows				
16	21.1673387	average PM2.5 obs				
17	3.34815726	average OC obs	6.240878205	Bakersfield average OC Obs	2.892720947	2.892721
18	1.06139113	average EC obs	0.972348686	Bakersfield average EC Obs		
19	4.40954839	total average OC/EC	7.213226891	total average OC/EC		

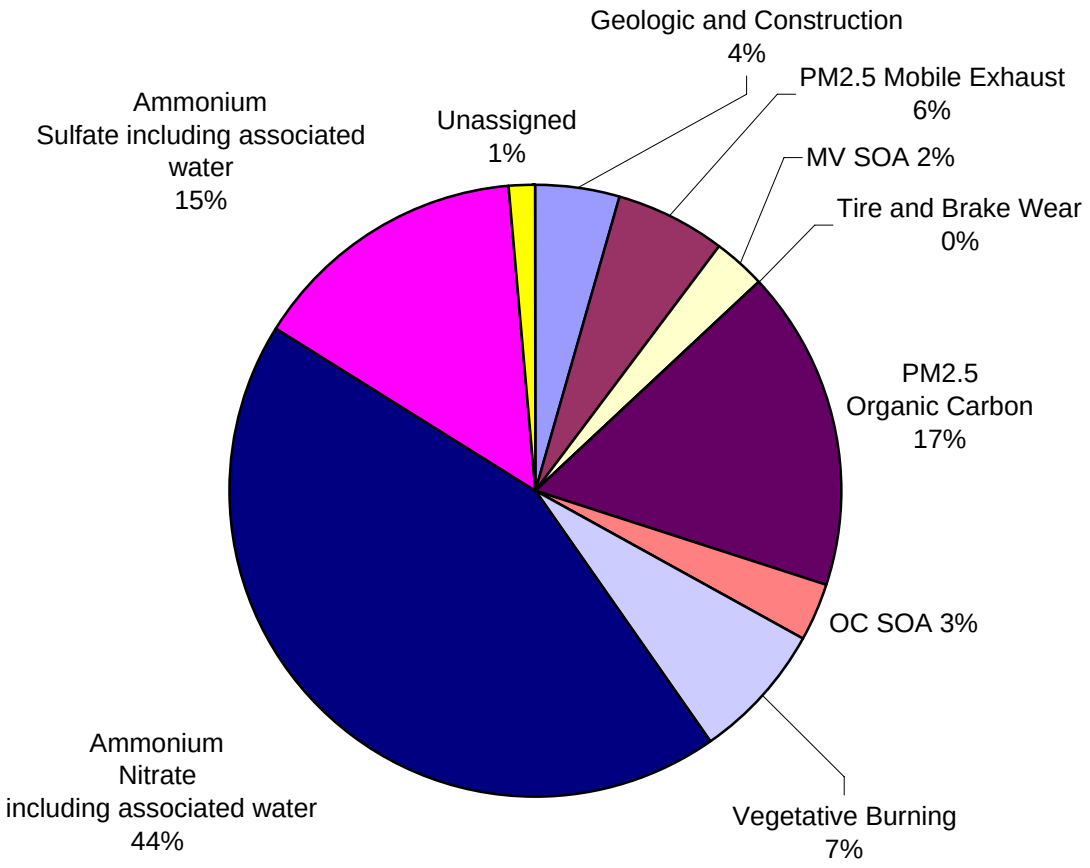
Fresno 00


Geologic and Construction
6%
PM2.5 Mobile Exhaust
5%
MV SOA 2%
Tire and Brake Wear
3%
PM2.5
Organic Carbon
10%
OC SOA 1%
Vegetative Burning
19%
Ammonium
Nitrate
including associated water
35%
Ammonium
Sulfate including associated
water
15%
Unassigned
3%

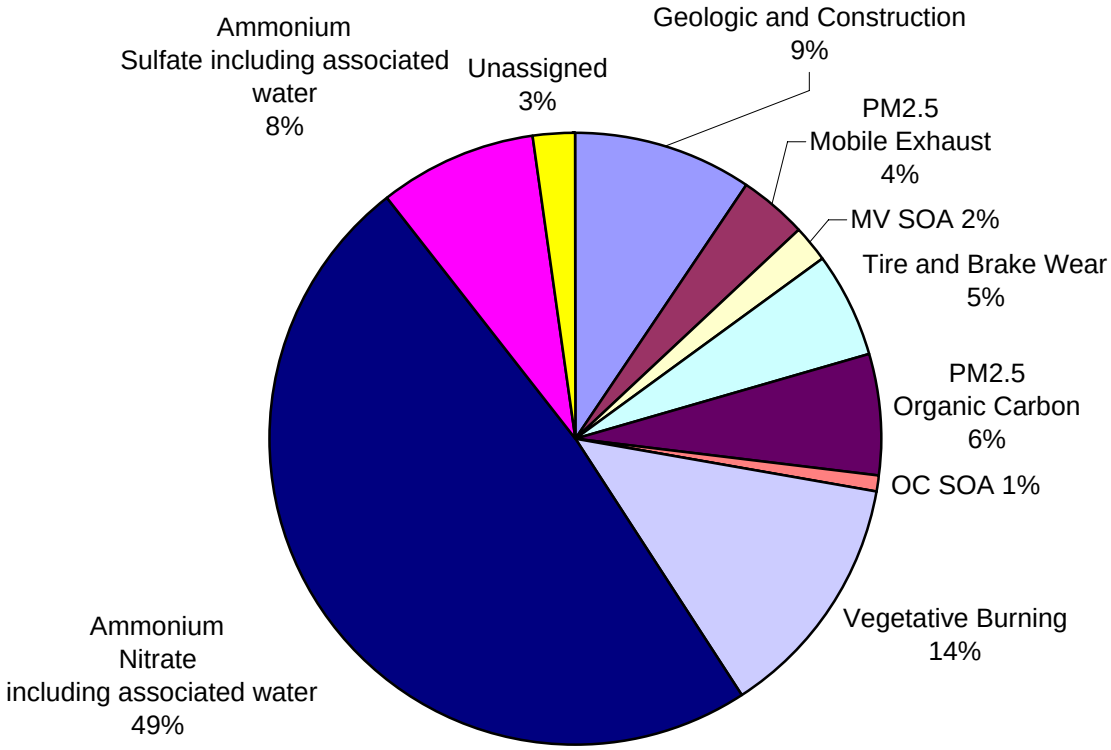
Fresno 04-06


Geologic and Construction
5%
PM2.5 Mobile Exhaust
3%
Tire and Brake Wear
2%
Unassigned
3%
Ammonium
Sulfate including associated
water
13%
PM2.5
Organic Carbon
16%
OC & MV SOA 5%
Vegetative Burning
13%
Ammonium
Nitrate
including associated water
40%

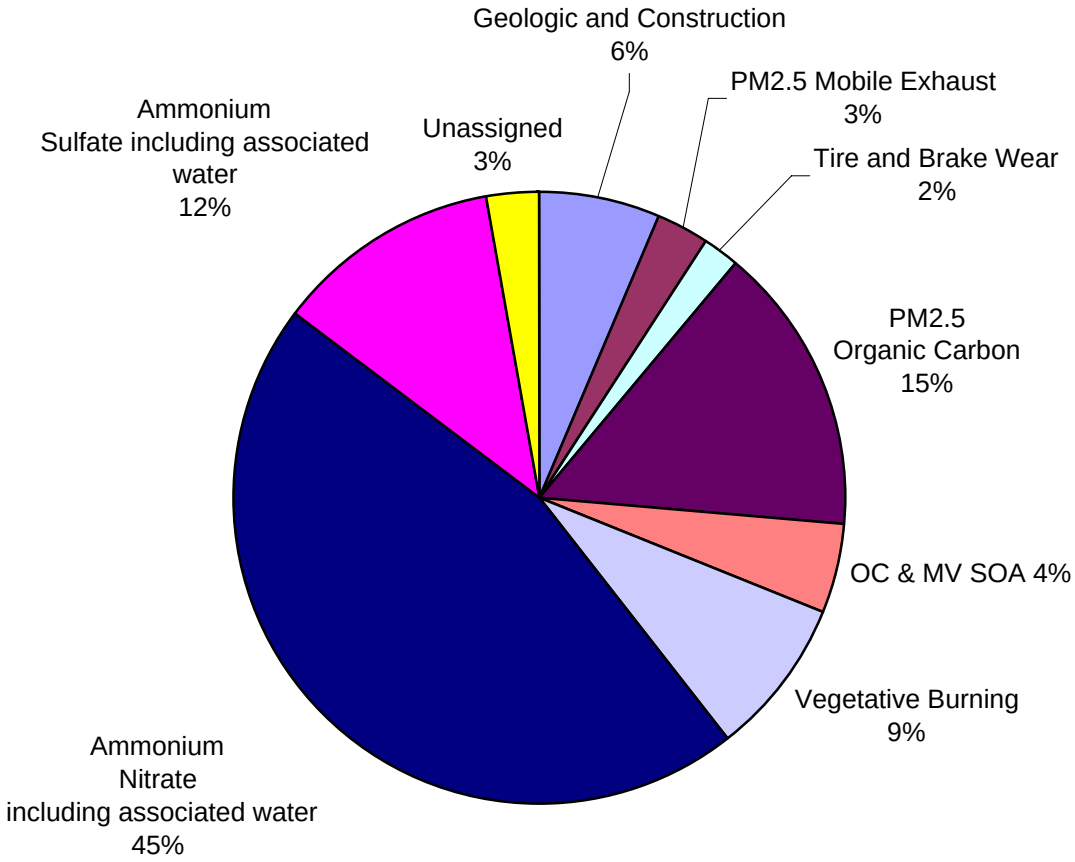
PMF Fresno


Geologic and Construction
4%
PM2.5 Mobile Exhaust
6%
MV SOA 2%
Tire and Brake Wear
0%
PM2.5
Organic Carbon
17%
OC SOA 3%
Vegetative Burning
7%
Ammonium
Nitrate
including associated water
44%
Ammonium
Sulfate including associated
water
15%
Unassigned
1%

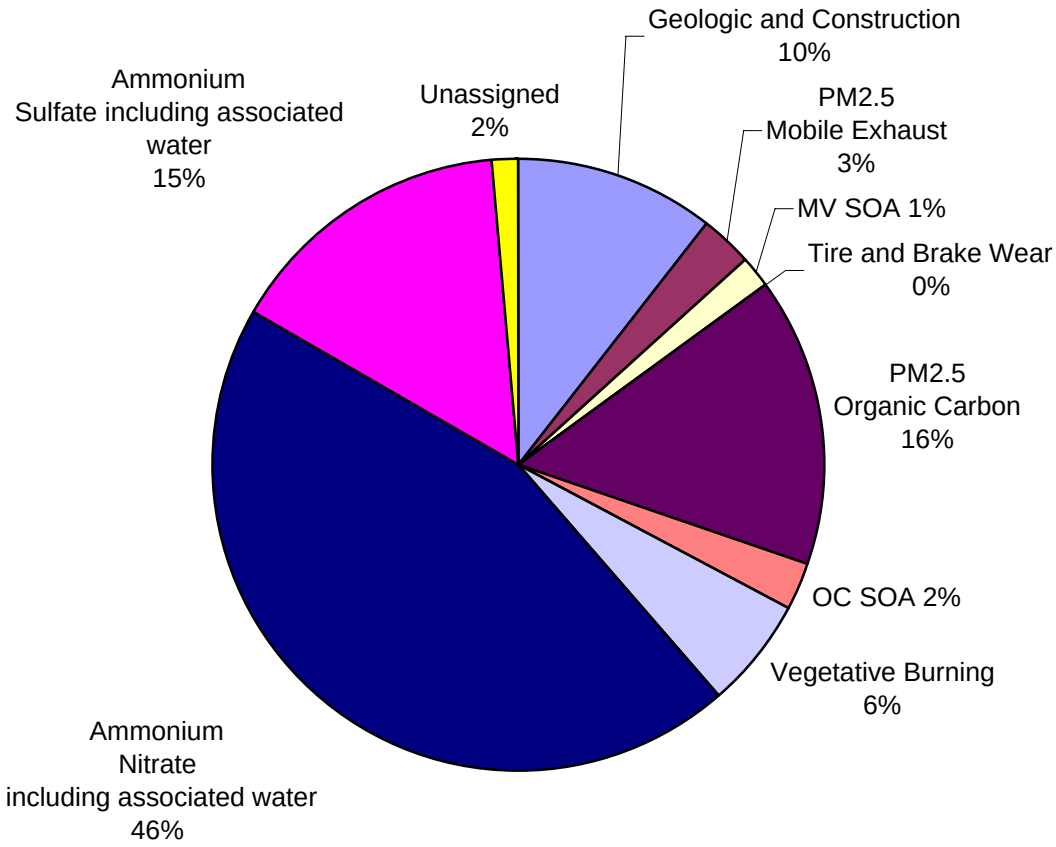
Kern 00


Ammonium Sulfate including associated water 8%
Unassigned 3%
Geologic and Construction 9%
PM2.5 Mobile Exhaust 4%
MV SOA 2%
Tire and Brake Wear 5%
PM2.5 Organic Carbon 6%
OC SOA 1%
Vegetative Burning 14%
Ammonium Nitrate including associated water 49%

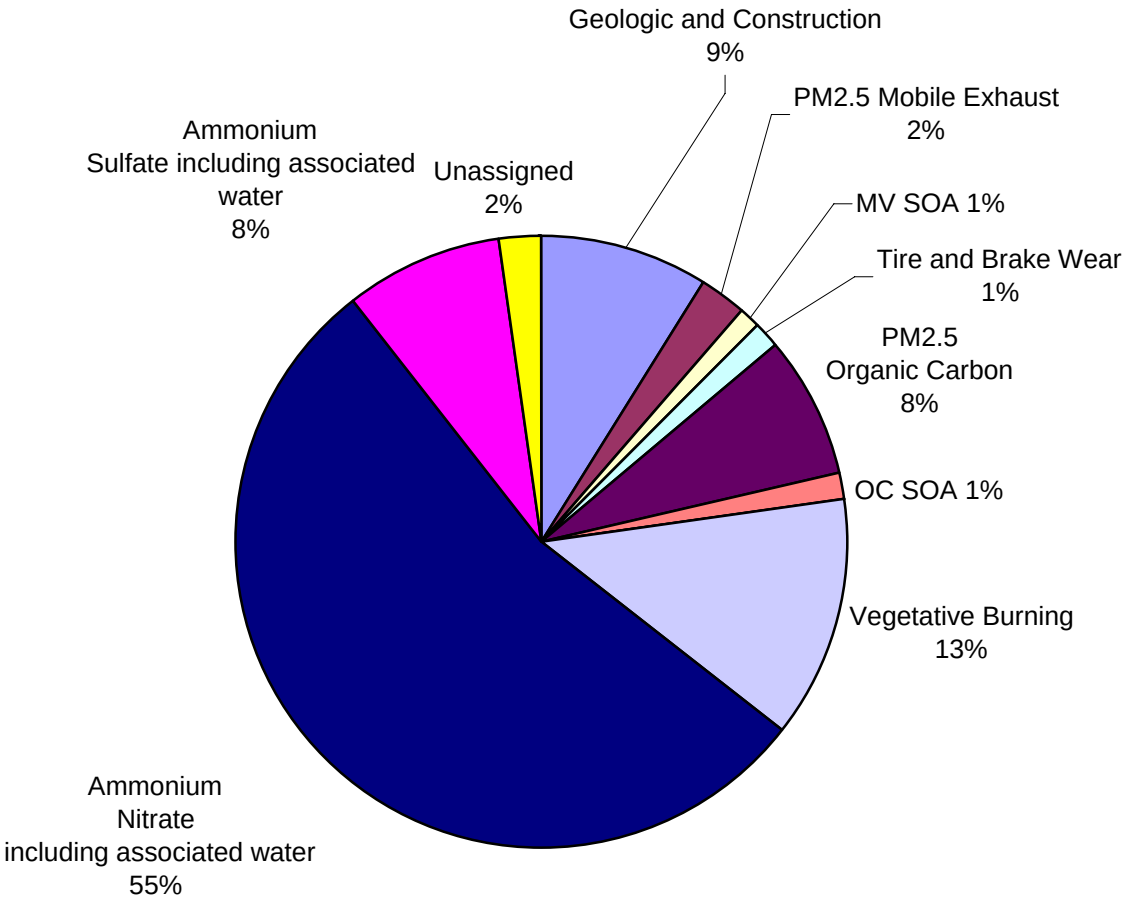
Kern 04-06


Geologic and Construction
6%
PM2.5 Mobile Exhaust
3%
Tire and Brake Wear
2%
PM2.5
Organic Carbon
15%
OC & MV SOA 4%
Vegetative Burning
9%
Ammonium
Nitrate
including associated water
45%
Ammonium
Sulfate including associated
water
12%
Unassigned
3%

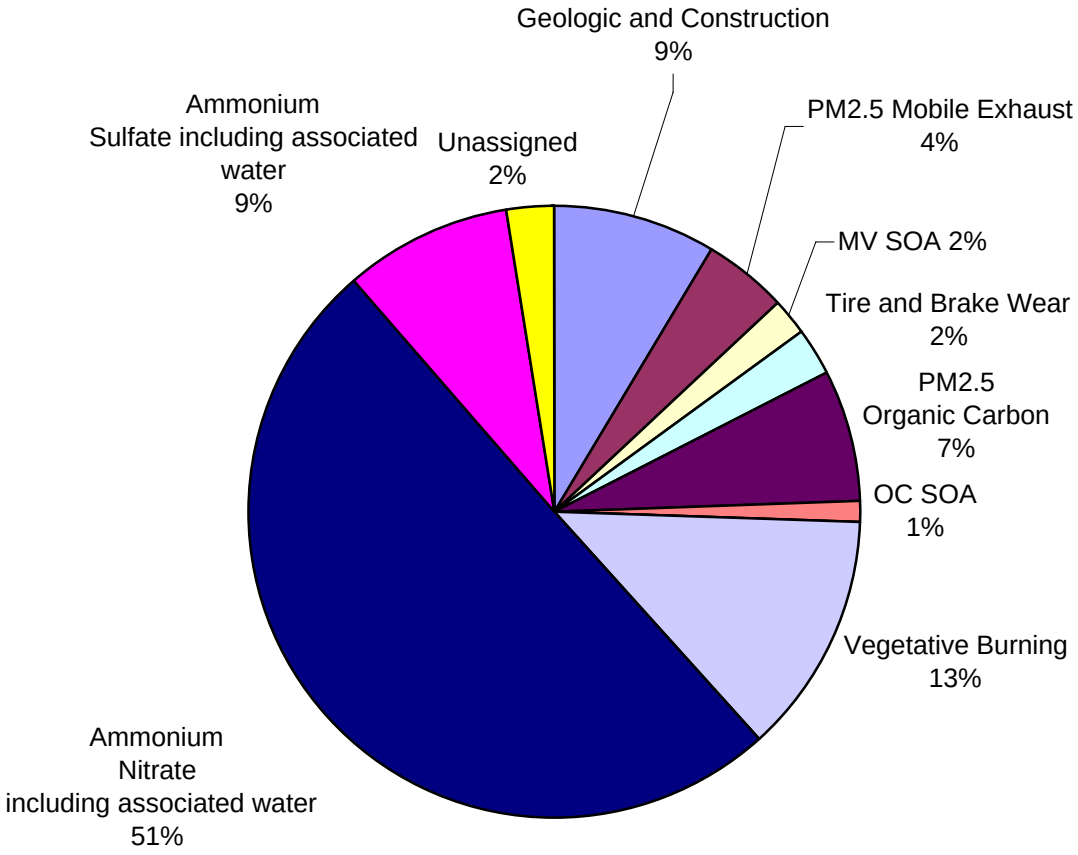
PMF Kern


Geologic and Construction
10%
PM2.5
Mobile Exhaust
3%
MV SOA 1%
Tire and Brake Wear
0%
PM2.5
Organic Carbon
16%
OC SOA 2%
Vegetative Burning
6%
Ammonium
Nitrate
including associated water
46%
Ammonium
Sulfate including associated
water
15%
Unassigned
2%

Kings 00


Geologic and Construction
9%
PM2.5 Mobile Exhaust
2%
MV SOA 1%
Tire and Brake Wear
1%
PM2.5
Organic Carbon
8%
OC SOA 1%
Vegetative Burning
13%
Ammonium
Nitrate
including associated water
55%
Ammonium
Sulfate including associated
water
8%
Unassigned
2%

Tulare 00


Geologic and Construction
9%
PM2.5 Mobile Exhaust
4%
MV SOA 2%
Tire and Brake Wear
2%
PM2.5
Organic Carbon
7%
OC SOA
1%
Vegetative Burning
13%
Ammonium
Nitrate
including associated water
51%
Ammonium
Sulfate including associated
water
9%
Unassigned
2%

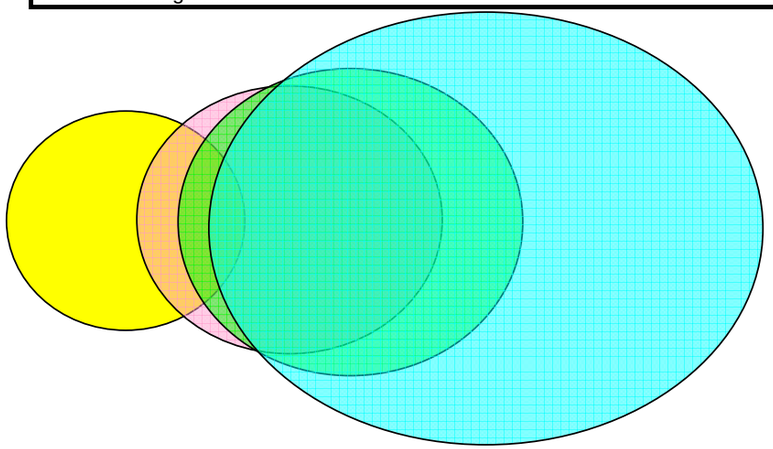
Mass weighting calculation

			Kern	Kern %	Tulare	Tulare %	**Mass split w/o weighting default used for PM10**
LINE 3		C7 value >	1.207774		1.158601		
Line 4 Local Contribution PM2.5 Primary Emissions Area of Influence	Source contribution from smallest area of influence, representative of large particle primary source area, includes all PM size emissions in the area - Rolled back against local area of influence emission estimates	Mass adjusted influence of 50% PM2.5 of net	Kern local		Tulare local		
LINE 4		**=C7*(1*C19)/(1*C19+0.3*C20+0.15*C21+0.05*C22)**	0.401	33%	0.357	31%	50%
Line 5 Local Contribution Primary and Secondary Area of Influence of PM2.5	Rolled back against local PM2.5 area of influence emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 30% PM2.5 of net	Kern		portions of Tulare & Kings		
LINE 5		**=C7*(0.3*C20)/(1*C19+0.3*C20+0.15*C21+0.05*C22)**	0.306	25%	0.316	27%	30%
Line 6 Sub regional Contribution Primary and Secondary PM2.5 (Line 5 and Line 6 are the same area for annual evaluation but may differ for episode evaluation)	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 15% PM2.5 of net	Kern		Tulare & Kings		
LINE 6		**=C7*(0.15*C21)/(1*C19+0.3*C20+0.15*C21+0.05*C22)**	0.153	13%	0.195	17%	15%
Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	Mass adjusted influence of 5% PM2.5 of net	SJV		SJV		
LINE 7		**=C7*(0.05*C22)/(1*C19+0.3*C20+0.15*C21+0.05*C22)**	0.348	29%	0.290	25%	5%

c7=anthro mass
c19=local EI
c20=PM2.5 AOI EI
c21=sub reg PM2.5 EI
c22=sjv EI

Weighted mass contribution = anthro mass * [(weighting factor*EI for AOI) /(sum of weighted EIs)]

Diagram below provides an unscaled graphic representation of the transport calculation
Local emissions (yellow left circle) are overlapped by partial contribution from the surrounding county and Valley emissions. The mass weighted calculation adjusts the effective contribution from transport to consider the proportional relationship between local emissions and influx from the surrounding area.



Effect of mass Weighted calculation
Provides a better representation of the influence of total Valley emissions
Provides better transport calculations relative to size of county emissions
Provides better estimate for PM2.5 than unweighted default used for PM10
(PM10 coarse particle travel distance is much less than PM2.5 size fraction)

Examples:
Kern has higher contribution from local emissions (total 71% Kern - 29% SJV)
Tulare has less local impact but larger PM2.5 AOI with combined Tulare-Kings area.
(Tulare 31%, Tulare-Kings 44%, SJV 25%)

Review of control strategy effectiveness supported by CMAQ nitrate particulate evaluation

Modeling of fine particulates (PM2.5) conducted for the 2006 PM10 Plan

Summary of findings	Primary	Secondary	Effective PM10 control option	Tracking required for PM10 SIP modeling
Ammonium Nitrate		NOx	**Yes**	**Yes**
		Ammonia	No	No
Ammonium Sulfate		SOx	No - PM10, Yes PM2.5	No - PM10, Yes PM2.5
		Ammonia	No	No
Geologic and Construction	PM10		**Yes**	**Yes**
Carbon particulates	PM10	ROG	**PM10 Yes, ROG Yes**	PM10 Plan ROP tracks directly emitted PM10, Ozone Plan ROP tracks secondary.
Rollback modeling divides the carbon into several major contributing source types:				
Mobile exhaust, tire and brake wear	PM10	ROG		Directly emitted PM10 included in PM10 ROP, Separate category tracking not effective for ROG secondary PM10 formation
Vegetative burning	PM10	ROG		
Organic Carbon from stationary and area sources	PM10	ROG		

Evaluation of the potential effectiveness of reductions as a control option

50% modeling sensitivity tests

NOx Reduction Response

NOx, SOx and ammonia form secondary PM2.5. Reductions of NOx reduce nitrate particulate but can result in formation of small amounts of additional sulfate particulate. A61

Criteria to determine significant sources:
Annual criteria > 1 microgram
Episode criteria > 5 micrograms
NOx forms nitrate annual particulate > 1 µgm
NOx forms nitrate particulate in episodes winter and fall > 5 µgm
Contributions pass test for significant contribution to standards.

CMAQ predicted sum of particulate nitrate, sulfate and ammonia ions in response to 50% cut of NOx emissions is used to determine net response.

Finding: NOx reductions are effective for the annual standard and the winter and fall episodes.

	ARB CMAQ model	Impact on rollback model	
	Nitrate, sulfate and ammonia response (%)	Nitrate particulate (µgm)	
Annual			
BGS	35.1	**4.9**	Winter average response
BAK	35.7	**5.0**	Winter average response
Finding		> 1 µgm	Effective as control option
Winter Episode			
HAN	31.5	**28.2**	Winter average response
Finding		> 5 µgm	Effective as control option
Fall Episode			
COP	39.5	**9.2**	Winter average response (October episode response is not modeled by CMAQ, analysis provides greater than maximum potential impact of nitrates)
Finding		Probably > 5 µgm	Probably effective as control option, the effect for nitrate chemistry at this time of year may be less than the calculated value
Summer Episode			
BGS	not applicable	< 5 µgm	Not effective as control option, windblown geologic event, total secondary nitrate particulate involved approximately one microgram.

Ammonia Reduction Response

NOx, SOx and ammonia form secondary PM2.5. Reductions of ammonia can result in reduced formation of sulfate and nitrate particulate but the reduction is small when ammonia is not a limiting precursor. The sum of effects is used for this analysis.

Criteria to determine significant sources:
Annual criteria > 1 microgram
Episode criteria > 5 micrograms
Ammonia forms nitrate and sulfate annual particulate > 1 µgm
Ammonia forms particulate nitrate and sulfate in episodes winter and fall > 5 µgm
Contributions pass test for significant contribution to standards.

CMAQ predicted sum of particulate nitrate, sulfate and ammonia ions in response to 50% cut of Ammonia emissions is used to determine net response
CMAQ establishes that ammonia is not a limiting precursor.
Reduction of ammonia by 50% results in only trace reductions of particulate.

Finding: Ammonia reduction is not effective for the annual standard or the winter and fall episodes.

	ARB CMAQ model Nitrate, sulfate and ammonia response (%)	Impact on rollback model Nitrate particulate (µgm)	
Annual			
BGS	1.7	0.2	Winter average response
BAK	0.8	0.1	Winter average response
Finding		< 1 µgm	Not effective as control option
Winter Episode			
HAN	0.4	0.3	Winter average response
Finding		< 5 µgm	Not effective as control option
Fall Episode			
COP	0.4	0.1	Winter average response (episode is October)
Finding		< 5 µgm	Not effective as control option
Summer Episode			
BGS	not applicable, windblown geologic event		

SOx Reduction Response

NOx, SOx and ammonia form secondary PM2.5. Reductions of SOx reduce sulfate particulate but can result in formation of small amounts of additional nitrate particulate. Due to small contribution, sensitivity modeling not required.

Criteria to determine significant sources:
Annual criteria > 1 microgram
Episode criteria > 5 micrograms
SOx forms sulfate annual particulate > 1 µgm
SOx forms sulfate particulate in episodes winter and fall > 5 µgm
Contributions pass test for significant contribution to standards

Review of sulfate particulate concentrations used to determine response
Finding: SOx reduction is not effective for the annual standard or the winter and fall episodes.

	Total SOx Contribution Maximum potential response (%)	Impact on rollback model Nitrate particulate (µgm)	
Annual	50	1	SOx anthropogenic annual average contribution 2 µgm
		1 µgm	Not effective as control option for annual PM10, significant for PM2.5 annual standard
Winter Episode			
	50	3	SOx maximum episodic anthropogenic contribution 6 µgm
		< 5 µgm	Not effective as control option
Fall and Summer Episodes			
	Mass contribution less than winter episode		Not effective as control option

VOC Reduction Response (for secondary particulate formation)

VOC forms carbon particles and is also involved in the secondary chemistry for nitrate and sulfate particulates. Reductions of VOC can result in reduced formation of carbon particulates and sulfate and nitrate particulate. The sum of effects predicted b

Carbon is quantified in the rollback analysis for primary emissions and secondary VOC particle formation in the categories: mobile exhaust, tire and brake wear, organic carbon and vegetative burning.

Criteria to determine significant sources:
Annual criteria > 1 microgram
Episode criteria > 5 micrograms
Total carbon annual particulate > 1 µgm
Total carbon episode particulate in winter and fall > 5 µgm
Contributions pass test for significant contribution to standards.

CMAQ predicted sum of particulate nitrate, sulfate and ammonia ions in response to 50% cut of VOC emissions is used to determine net response for secondary particle atmospheric chemistry.
CMAQ establishes that VOC emission reductions have an influence on nitrate and sulfate particle formation.
The combined effect of VOC and NOx reductions has not been established by sensitivity analysis and cannot be included in rollback calculations at this time.

Finding: VOC reduction is effective for the annual standard and the winter episode for reduction of total carbon secondary particulates, although projecting the interaction with NOx reductions is beyond the scope of the rollback approach.

	ARB CMAQ model Nitrate, sulfate and ammonia response (%)	Impact on rollback model Nitrate particulate (µgm)	
Annual			
BGS	9.8	**1.4**	Winter average response
BAK	9.5	**1.3**	Winter average response
Finding		> 1 µgm	Effective as control option
Winter Episode			
HAN	9.7	8.7	Winter average response
Finding		> 5 µgm	Effective as control option
Fall Episode			
COP	7.1	**1.6**	Winter average response (episode is October)
Finding		< 5 µgm	Not effective as control option
Summer Episode			
BGS	not applicable, windblown geologic event		

VOC Reduction Response (carbon particulate formation for major emission categories)

Reductions assumed to be proportional

BGS	Contribution	50% Reduction	
Annual Total Carbon	4.8	2.4	Effective as control option
Mobile Exhaust	1.8	0.9	Not effective to track separately
Tire and Break Wear	0.8	0.4	Not effective to track separately
Vegetative Burning	1.6	0.8	Not effective to track separately
Organic Carbon (other VOC particles from stationary and area sources)	0.7	0.3	Not effective to track separately

Finding: Effective in total but not effective to track at a category level.

HAN	Contribution	50% Reduction	
Winter Total Carbon	16.5	8.3	Effective as control option
Mobile Exhaust	6.2	3.1	Not effective to track separately
Tire and Break Wear	1.0	0.5	Not effective to track separately
Vegetative Burning	6.6	3.3	Not effective to track separately
Organic Carbon (other VOC particles from stationary and area sources)	2.8	1.4	Not effective to track separately

Finding: Effective in total but not effective to track at a category level.

Findings: VOC reduction is effective for the annual standard and the winter episode for reduction of total carbon particulates; however, tracking reductions at the major category level is not effective.

ANNUAL Average, based on CMB results for February to December 2000 plus the Jan 2001 Episode

				Design	Sum of	Burning		Motor Vehicle		Tire/Brake		Sulfate		Nitrate		Geological		Geological	
SITEID	CONC	UCONC	PCMASS	Value	species			Mass		Mass		Mass		Mass		Mass		Profile	Unassigned
BGS	57.7	3.6	98.5	57.0	55.6	6.3	2.3	3.6	2.4	1.1	1.2	3.0	0.3	14.9	1.3	26.7	5.8	FDKERANN	1.4
FSD	49.5	3.2	98.4	50.0	46.9	7.5	2.4	4.6	2.8	0.7	0.7	2.6	0.3	12.0	1.1	19.5	3.3	FDFSDANN	3.1
HAN	51.5	3.3	104.1	53.0	52.9	6.6	2.0	4.0	2.3	0.5	0.7	3.0	0.3	15.7	1.4	23.2	4.2	FDHANANN	0.1
VCS	52.5	3.3	99.6	54.0	51.8	6.7	2.5	4.0	2.5	0.5	1.0	3.1	0.3	15.9	1.5	21.7	3.8	FDVCSANN	2.2

This analysis provides a seasonally adjusted annual average, using the January episode to reflect the dominant winter chemistry.

Bakersfield Golden State Monthly

							Burning		Motor Vehicle		Tire/Brake		Sulfate		Nitrate		Geological	
SITEID	DATE	CONC	UCONC	PCMAS	RSQ	CHISQ	Mass	Unc	Mass	Unc	Mass	Unc	Mass	Unc	Mass	Unc	Mass	Unc
BGS	1/1/01	205	10.3	93.6	1.0	0.9	23.3	6.3	6.7	4.7	1.3	1.7	7.0	0.7	95.4	7.8	58.2	9.6
BGS	Feb	24.4	1.9	96.4	1.0	0.7	4.1	2.3	1.7	1.3	0.6	0.6	1.2	0.1	5.1	0.6	10.9	3.2
BGS	Mar	22.2	2.1	107.7	1.0	1.0	2.1	2.2	2.1	1.4	0.6	0.6	1.9	0.2	5.5	0.6	11.7	3.1
BGS	Apr	31.5	2.4	107.8	1.0	0.4	6.3	3.2	2.1	1.7	0.5	0.7	3.0	0.3	4.9	0.6	17.3	4.6
BGS	May*	34.6	2.5	118.5	1.0	0.5	0.3	0.4	5.3	2.6			3.1	0.3	4.5	0.5	27.8	5.7
BGS	Jun*	41.3	2.7	102.7	1.0	0.6	0.9	0.4	5.1	2.6			3.8	0.3	3.1	0.4	29.4	6.0
BGS	Jul*	37.0	2.6	101.3	0.9	2.2	7.1	1.1	0.2	1.4	2.4	1.4	2.1	0.2	2.2	0.3	23.4	5.9
BGS	Aug*	43.5	2.6	97.8	1.0	1.2	4.1	0.8	2.2	1.9	0.5	1.4	2.5	0.3	2.9	0.4	30.2	6.5
BGS	Sep*	78.6	4.7	98.3	0.9	1.2	3.5	1.4	4.5	3.3	0.8	2.7	3.0	0.4	3.6	0.4	61.9	12.5
BGS	Oct*	36.1	2.8	83.9	1.0	1.0	3.5	0.7	1.6	1.3	1.4	1.0	1.9	0.2	5.2	0.6	16.7	4.3
BGS	Nov	48.4	2.9	86.3	1.0	0.4	7.9	3.4	4.6	2.7	0.6	0.7	2.2	0.2	14.0	1.2	12.3	3.1
BGS	Dec	90.2	5.1	87.4	1.0	0.6	12.5	5.1	7.0	4.2	2.1	1.2	4.3	0.4	32.2	2.7	20.9	5.4
Min		22.2	1.9	83.9	0.9	0.4	0.3	0.4	0.2	1.3	0.5	0.6	1.2	0.1	2.2	0.3	10.9	3.1
Avg		57.7	3.6	98.5	1.0	0.9	6.3	2.3	3.6	2.4	1.1	1.2	3.0	0.3	14.9	1.3	26.7	5.8
Max		205.0	10.3	118.5	1.0	2.2	23.3	6.3	7.0	4.7	2.4	2.7	7.0	0.7	95.4	7.8	61.9	12.5

Fresno Drummond Monthly

							Burning		Motor Vehicle		Tire/Brake		Sulfate		Nitrate		Geological	
SITEID	DATE	CONC	UCONC	PCMAS	RSQ	CHISQ	Mass	Unc	Mass	Unc	Mass	Unc	Mass	Unc	Mass	Unc	Mass	Unc
FSD	1/1/01	186	9.4	87.9	1.0	1.1	40.1	11.3	18.5	9.6	2.5	1.5	5.0	0.7	62.4	5.1	35.1	6.8
FSD	Feb	27.0	2.1	97.3	1.0	0.7	5.7	2.5	3.1	1.8	0.3	0.4	1.1	0.2	7.7	0.8	8.3	2.1
FSD	Mar	23.9	2.1	116.0	1.0	0.7	4.6	2.4	3.1	1.8	0.1	0.4	1.8	0.2	8.2	0.9	9.9	2.3
FSD	Apr	24.8	2.2	112.1	1.0	0.6	3.4	2.7	2.4	1.6	0.2	0.5	2.4	0.2	5.0	0.5	14.4	3.0
FSD	May**	20.0	2.1	99.5	1.0	0.6	0.34456	0.32946	2.1	1.4			2.32687	0.22637	2.47743	0.32112	12.63	1.7055
FSD	Jun*	34.1	2.5	105.8	1.0	1.0	1.9	0.4	3.8	2.3	0.0	0.6	4.2	0.4	3.6	0.4	22.5	3.8
FSD	Jul*	26.4	2.3	100.6	1.0	0.6	1.0	0.4	1.5	1.3			1.7	0.2	2.7	0.3	19.6	2.2
FSD	Aug*	38.2	2.5	90.2	0.9	2.7	3.8	0.7	0.9	1.5	1.4	0.9	2.0	0.3	3.3	0.4	23.1	4.3
FSD	Sep*	56.7	3.3	92.8	1.0	0.9	1.5	0.6	3.4	2.5	0.9	1.0	2.6	0.4	3.6	0.4	40.6	6.0
FSD	Oct*	50.7	3.4	93.5	1.0	0.5	1.8	0.4	4.5	2.6			2.2	0.3	8.4	0.8	30.6	3.3
FSD	Nov	40.5	2.6	95.7	1.0	0.4	11.9	3.3	4.5	2.7	0.4	0.4	2.1	0.2	13.1	1.2	6.8	1.8
FSD	Dec	65.8	3.9	89.7	1.0	0.8	13.7	4.3	7.3	3.8	0.8	0.6	3.2	0.3	23.4	2.0	10.6	2.6
Min		20.0	2.1	87.9	0.9	0.4	0.3	0.3	0.9	1.3	0.0	0.4	1.1	0.2	2.5	0.3	6.8	1.7
Avg		49.5	3.2	98.4	1.0	0.9	7.5	2.4	4.6	2.8	0.7	0.7	2.6	0.3	12.0	1.1	19.5	3.3
Max		186.0	9.4	116.0	1.0	2.7	40.1	11.3	18.5	9.6	2.5	1.5	5.0	0.7	62.4	5.1	40.6	6.8

Hanford Monthly

							Burning		Motor Vehicle		Tire/Brake		Sulfate		Nitrate		Geological	
SITEID	DATE	CONC	UCONC	PCMAS	RSQ	CHISQ	Mass	Unc	Mass	Unc	Mass	Unc	Mass	Unc	Mass	Unc	Mass	Unc
HAN	1/7/01	185	9.6	102.9	1.0	0.4	27.6	9.7	14.7	7.8	1.7	1.1	7.2	0.7	96.9	7.9	42.4	7.7
HAN	Feb	20.0	1.8	105.0	0.9	0.5	5.0	1.7	1.4	1.0	0.0	0.3	1.4	0.2	8.6	0.9	4.6	1.3
HAN	Mar	21.4	2.0	100.3	0.9	0.5	4.0	1.8	1.6	1.0	0.2	0.3	1.8	0.2	7.1	0.7	6.8	1.8
HAN	Apr*	22.3	2.1	120.6	1.0	0.3	0.4	0.3	3.2	1.6			2.2	0.2	5.0	0.5	16.1	2.8
HAN	May*	24.4	2.1	107.3	1.0	0.3	1.16725	0.35652	2.4	1.4			2.44716	0.22382	3.77466	0.44049	16.4	2.79498
HAN	Jun*	31.3	2.5	107.9	1.0	0.4	3.2	0.5	2.4	1.6	0.2	0.6	3.8	0.3	4.1	0.5	20.1	4.1
HAN	Jul*	38.7	2.6	107.9	0.9	0.7	3.6	0.6	2.7	1.6	0.2	0.7	3.4	0.3	5.6	0.6	26.3	4.7
HAN	Aug*	43.3	2.6	103.7	0.9	0.5	4.2	0.6	1.9	1.5	0.3	0.8	2.0	0.2	2.7	0.4	33.8	5.7
HAN	Sep*	70.5	4.0	105.3	0.9	0.5	2.5	0.8	4.3	2.7	0.5	1.2	3.1	0.4	5.0	0.7	58.8	8.8
HAN	Oct*	51.8	3.4	90.9	1.0	0.3	1.0	0.5	3.7	2.2	0.2	0.8	2.4	0.3	7.6	0.8	32.2	5.8
HAN	Nov	46.4	2.8	107.6	1.0	0.4	13.5	3.6	4.8	2.9	1.0	0.5	2.4	0.3	17.7	1.5	10.5	2.7
HAN	Dec	62.8	3.6	89.4	1.0	0.5	12.4	3.4	4.4	2.5	0.9	0.5	3.7	0.4	23.9	2.1	10.7	2.8
Min		20.0	1.8	89.4	0.9	0.3	0.4	0.3	1.4	1.0	0.0	0.3	1.4	0.2	2.7	0.4	4.6	1.3
Avg		51.5	3.3	104.1	1.0	0.4	6.6	2.0	4.0	2.3	0.5	0.7	3.0	0.3	15.7	1.4	23.2	4.2
Max		185.0	9.6	120.6	1.0	0.7	27.6	9.7	14.7	7.8	1.7	1.2	7.2	0.7	96.9	7.9	58.8	8.8

Visalia Church Street Monthly

							Burning		Motor Vehicle		Tire/Brake		Sulfate		Nitrate		Geological	
SITEID	DATE	CONC	UCONC	PCMAS	RSQ	CHISQ	Mass	Unc	Mass	Unc	Mass	Unc	Mass	Unc	Mass	Unc	Mass	Unc
HAN	1/7/01	185	9.6	102.9	1.0	0.4	27.6	9.7	14.7	7.8	1.7	1.1	7.2	0.7	96.9	7.9	42.4	7.7
VCS	Feb	25.0	2.1	99.8	1.0	0.5	5.3	2.1	2.0	1.3	0.0	0.5	1.1	0.1	9.0	1.0	7.6	1.9
VCS	Mar	27.5	2.2	102.9	1.0	1.0	4.8	2.2	2.9	1.7	0.1	0.5	2.1	0.2	10.0	0.9	8.4	1.9
VCS	Apr	26.2	2.2	115.3	1.0	0.7	5.6	2.8	1.7	1.6	0.6	0.6	2.8	0.3	5.9	0.6	13.7	2.9
VCS	May**	29.1	2.3	112.8	1.0	0.7	5.4	3.6	1.4	1.6			2.8	0.3	3.8	0.5	19.4	3.2
VCS	Jun*	42.0	2.7	106.1	1.0	0.7	0.8	0.4	4.9	2.7			5.4	0.5	5.2	0.6	28.2	3.9
VCS	Jul*	34.7	2.5	107.8	0.9	1.4	3.7	0.6	1.8	1.7	0.5	1.1	2.9	0.3	4.9	0.6	23.7	3.8
VCS	Aug*	44.9	2.7	98.5	0.9	1.3	3.6	0.7	1.4	1.6	0.3	1.4	2.3	0.3	4.2	0.5	32.4	4.9
VCS	Sep*	59.1	3.5	84.4	0.9	1.3	3.4	0.8	1.9	1.9	0.7	1.6	3.0	0.3	4.8	0.6	36.0	5.7
VCS	Oct*	53.7	3.5	83.6	1.0	0.6	1.6	0.7	4.4	2.6	0.0	1.4	2.4	0.3	9.8	1.0	26.7	4.5
VCS	Nov	37.3	2.5	94.1	1.0	0.6	5.8	3.1	6.1	2.9			1.8	0.2	10.9	1.0	10.5	2.1
VCS	Dec	65.0	3.8	87.5	1.0	0.9	12.7	3.6	4.6	2.7	0.6	0.7	3.2	0.3	24.8	2.1	11.2	2.6
Min		25.0	2.1	83.6	0.9	0.4	0.8	0.4	1.4	1.3	0.0	0.5	1.1	0.1	3.8	0.5	7.6	1.9
Avg		52.5	3.3	99.6	1.0	0.9	6.7	2.5	4.0	2.5	0.5	1.0	3.1	0.3	15.9	1.5	21.7	3.8
Max		185.0	9.6	115.3	1.0	1.4	27.6	9.7	14.7	7.8	1.7	1.6	7.2	0.7	96.9	7.9	42.4	7.7

NOTES: Burning profile was switched from wood burning to agricultural burning based on ARB monthly emissions inventory estimates.
Asterisk * denotes AgBWheat profile used; ** denotes WBAlmond (some AgBWheat/WBAlmond used in April/May)

Source Profiles

	Jan-May and Nov-Dec		June-Oct		
Burning	22	WBOakEuc	27	AgBWheat*	
Sulfate	57	Amsul	57	Amsul	
Nitrate	60	Amnit	60	Amnit	
Motor Vehicle	65	CAMV	65	CAMV	
Tire/Brake	67	TireBrke	67	TireBrke	Note: (not used if run came out negative)
Geological	92	FDHANANN	92	FDHANANN	
	93	FDFREANN	93	FDFREANN	
	94	FDVCSANN	94	FDVCSANN	
	95	FDKERANN	95	FDKERANN	

Bakersfield-5558 California Avenue	**2001 data incomplete**				
2002	Quarter				
Data	1	2	3	4	Grand Total
Average of PM25Mass	31.620	11.138	16.223	35.074	22.967
Average of EC	1.268	0.642	0.992	1.530	1.092
Average of GeologicalImprove	0.761	1.684	1.975	1.373	1.474
Average of Organics	12.017	6.576	11.146	14.320	10.903
Average of Elements	0.548	0.455	0.592	0.707	0.572
Average of Ammonium Sulfate	2.303	2.431	2.801	2.932	2.616
Average of Ammonium Nitrate	18.422	3.146	2.164	18.450	10.059
Sum of species					

Fresno-1st Street				
	2000-2001avg	**2001**	**2000**	
Data				
Average of PM25Mass	21.543			
Average of EC	0.908		0.793677	
Average of GeologicalImprove	0.948			
Average of Organics	12.354		10.56014	
Average of Elements	0.581			
Average of Ammonium Sulfate	2.199			
Average of Ammonium Nitrate	5.951	7.480561		
Sum of species			11.354	

SITE_NAME	**Fresno-1st Street**							
	Year							
Data	2000	2001	2002	2003	2004	2005	2006	00-01
EC	0.793676786	1.022577	1.00408	0.949425	0.74851743	0.80900439	0.948586	0.908126681
GeologicalImprove	0.870063452	1.02669	0.976853	0.710779	0.81988847	0.65586129	0.886355	0.948376815
Elements	0.476117632	0.685224	0.64259	0.460083	0.384786	0.33531531	0.393332	0.580670834
Sulfate	2.240893286	2.156156	2.415316	2.178765	2.07379888	2.10245509	2.057961	2.198524432
Nitrate	4.421363112	7.480561	11.40096	6.671254	7.11395865	6.60945573	6.169002	5.950961872
Organics	10.5601375	14.14883	12.56358	10.97092	8.75937615	8.13964912	9.357672	12.35448316
sum C	11.35381429							
PM25Mass	18.2377193	24.84865	22.76726	18.39211	17.6036364	17.465812	18.30345	21.54318397
		21.95121						

Visalia-N Church Street	**no 2001 data**				
2002	Quarter				
Data	1	2	3	4	Grand Total
Average of PM25Mass	31.923	13.231	16.250	34.467	23.930
Average of EC	0.500	0.500	0.550	0.500	0.514
Average of GeologicalImprove	0.671	1.353	2.157	1.292	1.407
Average of Organics	14.743	9.445	12.416	14.793	12.895
Average of Elements	0.332	0.449	0.504	0.658	0.493
Average of Ammonium Sulfate	1.677	2.691	2.807	2.116	2.341
Average of Ammonium Nitrate	17.147	4.404	5.547	17.055	10.960
Sum of species					

PM10 SPECIES

ANNUAL Average PM10 , based on CMB results for February to December 2000 plus the Jan 2001 Episode

				Design	Sum of	Burning		Motor Vehicle	
SITEID	CONC	UCONC	PCMASS	Value	species			Mass	
BGS	57.7	3.6	98.5	57.0	55.6	6.3	2.3	3.6	2.4
FSD	49.5	3.2	98.4	50.0	46.9	7.5	2.4	4.6	2.8
HAN	51.5	3.3	104.1	53.0	52.9	6.6	2.0	4.0	2.3
VCS	52.5	3.3	99.6	54.0	51.8	6.7	2.5	4.0	2.5

This analysis provides a seasonally adjusted annual average, using the January episode to reflect the dominant winter chemistry.

Tire/Brake		Sulfate		Nitrate		Geological		Geological	
Mass		Mass		Mass		Mass		Profile	Unassigned
1.1	1.2	3.0	0.3	14.9	1.3	26.7	5.8	FDKERANN	1.4
0.7	0.7	2.6	0.3	12.0	1.1	19.5	3.3	FDFSDANN	3.1
0.5	0.7	3.0	0.3	15.7	1.4	23.2	4.2	FDHANANN	0.1
0.5	1.0	3.1	0.3	15.9	1.5	21.7	3.8	FDVCSANN	2.2

PM10 Rollback Default Percentage

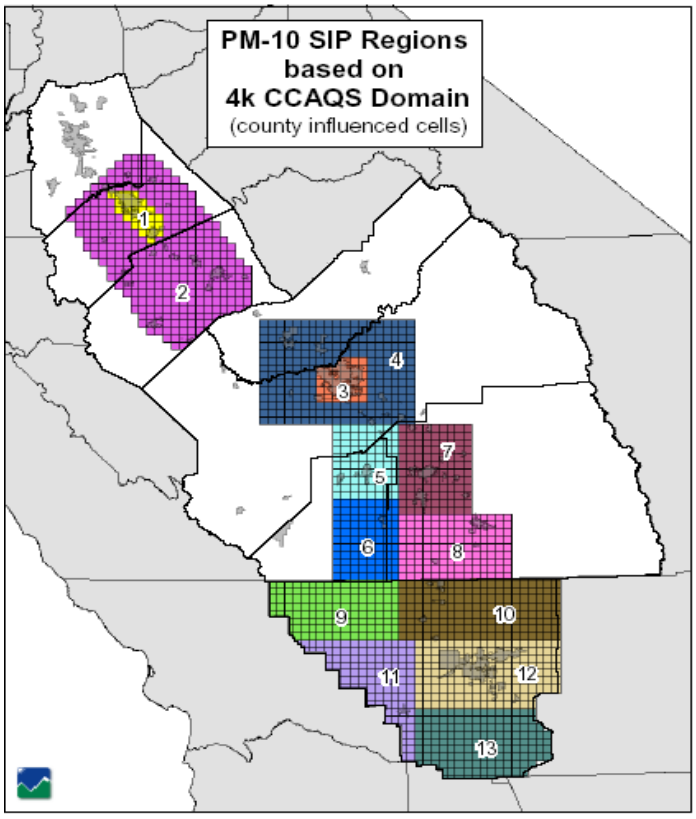
	Local	PM2.5	Sub regional	Regional	Total
Default 2.5-10	**70**	**15**	**10**	**5**	**100**
Default 2.5	**50**	**30**	**15**	**5**	**100**

Notes: Default percentage is distribution of anthropogenic contribution after subtraction of background
PM2.5 default transport percentages are adjusted by mass weighted relationships
Mapping of local, PM2.5-local, and sub-regional based on trajectory analysis

			Areas used			
24-hr date	**Site Name**	**Value**	**Local**	**PM2.5**	**Sub regional**	**Regional**	**# of dates**
11/6/97	Corcoran-Patterson Avenue	199					
12/31/98	Bakersfield-Golden State Highway	159					
	Visalia-N Church Street	160					
1/12/99	Oildale-3311 Manor Street	156	12	12,13	Kern	SJV	1
10/21/99	Corcoran-Patterson Avenue	174	6	5,6,7,8	Kings-Tulare	SJV	2
	Fresno-Drummond Street	162	3	3,4	Fresno-Madera	SJV	3
	Turlock-S Minaret Street	157	1	1,2	Stanislaus-Merced	SJV	4
11/14/99	Bakersfield-Golden State Highway	183	12	6,7,8,10,12	Kings-Tulare-Kern	SJV	5
12/11/99	Hanford-S Irwin Street	183					
12/17/99	Corcoran-Patterson Avenue	174	6	6,8	Kings-Tulare	SJV	6
12/23/99	Fresno-Drummond Street	168	3	3,4,7	Fresno-Tulare	SJV	7
	Hanford-S Irwin Street	156	5	5,6,8	Kings-Tulare	SJV	8
1/1/01	Bakersfield-5558 California Avenue	186	12	9,10,11,12	Kern	SJV	9
	Bakersfield-Golden State Highway	205	12	9,10,11,12	Kern	SJV	10
	Clovis-N Villa Avenue	155	3	3,4	Fresno-Madera	SJV	11
	Fresno-1st Street	193	3	3,4	Fresno-Madera	SJV	12
	Fresno-Drummond Street	186	3	3,4	Fresno-Madera	SJV	13
	Oildale-3311 Manor Street	158	12	9,10,11,12	Kern	SJV	14
1/4/01	Bakersfield-5558 California Avenue	190	12	10,12,13	Kern	SJV	15
	Bakersfield-Golden State Highway	208	12	10,12,13	Kern	SJV	16
	Fresno-Drummond Street	159	3	3,4	Fresno-Madera	SJV	17
	Oildale-3311 Manor Street	195	12	10,12,13	Kern	SJV	18
1/7/01	Bakersfield-5558 California Avenue	159	12	10,12	Kern	SJV	19
	Bakersfield-Golden State Highway	174	12	10,12	Kern	SJV	20
	Corcoran-Patterson Avenue	165	6	6,8,10,12	Kings-Tulare-Kern	SJV	21
	Hanford-S Irwin Street	185	5	5,6,7,8,10	Kings-Tulare-Kern	SJV	22
	Modesto-14th Street	158	1	1,2	St-Me-Ma- Fr-Tu	SJV	23
11/9/01	Hanford-S Irwin Street	155	5	5,7,8	Kings-Tulare	SJV	24

Annual Area of Influence: Established from 2000-2001 Evaluation of Contributioins to PM10 Annual

County	PM10 DV Value	Local	Areas used PM2.5	Sub regional	Regional
Fresno	50	3	3,4	Fresno-Madera	SJV
Kings	53	5	5,6,7,8	Kings-Tulare	SJV
Tulare	53	7	5,6,7,8	Tulare-Kings	SJV
Kern	57	12	Kern	Kern	SJV



Label and format corrections and updates

	M1 corrections	05 C corrections	00-14 corrections	M2 corrections	PMF corrections
a	J1, K1	A1, J1, K1	J1, K1	A1, D1, G1, J1, K1	A1 PMF specific, J1, K1
b	Line 2 - county specific			L2 G	L2 PMF specific
c	M3 format	M3 format	M3 format		L4 PMF G-K
d					L4 A-C
e	Line 4, 8, 10, 12, 14, 16	Line 4, 8, 10, 12, 14, 16	Line 4, 8, 10, 12, 14, 16	Line 4, 8, 10, 12, 14, 16	Line 8, 10, 12, 14, 16
f	A19, 36, 40 PM10>PM2.5	A19, 36, 40 PM10>PM2.5	A19, 36, 40 PM10>PM2.5	A19, 36, 40 PM10>PM2.5	A19, 36, 40 PM10>PM2.5
g	A69-70, 76-77	A69-70, 76-77	A69-70, 76-77	A69-70, 76-77	A69-70, 76-77
h	Check J6	Check J6	Check J6	Check J6	Check J6
I					
j	A91 update	A97		A91 update	A91 update

QA completion

M1	05 C	00-14	M2	PMF
Fr	Fr	Fr	Fr	Fr
Ke	Ke	Ke	Ke	Ke
Ki	Ki	Ki		
Tu	Tu	Tu		

Kern M1, 05C, 00-14, M2, PMF Control Effectiveness

Cell A85 design value year corrected to match cell A1
Cell D3 and E3 corrected to clarify that original analysis was for PM10
Cell D6, E6 and E57 corrected to reflect difference between PM10 and PM2.5 annual standards
SOx 1ug/m3 contribution is not significant for PM10 annual standard
SOx 1ug/m3 is significant for PM2.5 annual standard