

**Model prediction of change 2005 to 2020
 Projection of 2001 Annual modeling to 2005 and 2020
 With Offline emission Adjustments
 (Revisions not included in ARB emissions database)**

Rollback methodology does not predict the amount of improvement that has occurred by 2005. Therefore, the model is used in accordance with EPA guidance to establish the relative improvement predicted by the model, with the results applied to the observed design value.

	Rollback model prediction		Relative model prediction of change from 2005 to 2020	Observed Data	2020 Projection Using 2005 data
	2005	2020	Predicted percent of change	2005 annual	
Fresno	46.25	41.77	9.7%	38.7	34.9
Kern	52.17	48.22	7.6%	43.2	39.9
Kings	47.83	43.49	9.1%	40.3	36.7
Tulare	48.00	43.60	9.2%	44.3	40.2

The average of IMS-95 and CMAQ predictions are used as the worst case estimate. These regional modeling predictions are the most pessimistic due to adjustment for nonlinear nitrate chemistry

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
	Fresno Annual Analysis		Geologic and Construction	Mobile Exhaust		Tire and Brake Wear		Organic Carbon	Vegetative Burning		Ammonium Nitrate including associated water	Ammonium Sulfate	Marine	Unassigned		
	Model Input Data from 2000 evaluated by CMB and Speciated Rollback															
	Input data Annual Average 50															
	Emissions projections used to predict relative change to 2005 and 2020															
1	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.					
2	Line2 Natural and Transport Contribution, see "Background" sheet	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	see background sheet for numerical estimate and episode adjustment. 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	see background sheet for numerical estimate and episode adjustment. Removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions. = 20%	see background sheet for numerical estimate and episode adjustment. Removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic. =20% + 10%	see background sheet for numerical estimate and episode adjustment. Removed prior to rollback as not subject to local control, added back to projected future concentrations	see background sheet for numerical estimate and episode adjustment. 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, background estimate at maximum, no additional background estimate for unexplained mass					
3	LINE 1	60.00	19.50	4.60	0.70	2.25	5.25	12.00	2.60	0.00	3.1					
4	LINE 2	8.03	4.0	0.0	0.0	0.5	1.6	1.0	1.0							
5	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				
6	LINE 3	41.98	15.5	4.6	0.7	1.8	3.7	11.0	1.6	0.0	3.1					
7	Line4 Local Contribution PM2.5-PM10 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	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net, non-linear rollback	70%PM10 50%PM2.5 of net	X	70%PM10 50%PM2.5 of net			
8	LINE 4	24.85	10.9	2.3	0.5	0.9	1.8	5.5	0.8		2.2					
9	Line5 Local Contribution 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	15%PM10 30%PM2.5	15%PM10 30%PM2.5	15%PM10 30%PM2.5	15%PM10 30%PM2.5	15%PM10 30%PM2.5	15%PM10 30%PM2.5 non-linear rollback	15%PM10 30%PM2.5		15%PM10 30%PM2.5					
10	LINE 5	9.70	2.3	1.4	0.1	0.54	1.1	3.3	0.5		0.5					
11	Line6 Sub regional Contribution	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	10%PM10 15%PM2.5	10%PM10 15%PM2.5	10%PM10 15%PM2.5	10%PM10 15%PM2.5	10%PM10 15%PM2.5	10%PM10 15%PM2.5 non-linear rollback	10%PM10 15%PM2.5		10%PM10 15%PM2.5					
12	LINE 6	5.33	1.6	0.7	0.1	0.27	0.6	1.65	0.24		0.3					
13	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	5%PM10 5%PM2.5	5%PM10 5%PM2.5	5%PM10 5%PM2.5	5%PM10 5%PM2.5	5%PM10 5%PM2.5	5%PM10 5%PM2.5 non-linear rollback	5%PM10 5%PM2.5		5%PM10 5%PM2.5					
14	LINE 7	2.10	0.8	0.2	0.0	0.09	0.2	0.55	0.08		0.2					
15	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	PM10 paved roads+ PM10 unpaved roads+ PM10 off road mobile+ PM10 farm operations+ PM10 construction+ PM10 windblown	PM10, ROG & CO onroad mobile+ PM10, ROG & CO 860 offroad equipment PM10, ROG & CO 870 farm equipment CO presumed to add minimal mass	Tire and brake wear as predicted by EMFAC2002	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM10 & CO Area, Stationary CO presumed to add minimal mass	PM10 & CO residential burning PM10 & CO waste burning and disposal PM10 cooking PM10 & 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 PM10					
16	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	O
	Fresno Annual Analysis Model Input Data from 2000 evaluated by CMB and Speciated Rollback Input data Annual Average 50 Emissions projections used to predict relative change to 2005 and 2020		Geologic and Construction	Mobile Exhaust	Tire and Brake Wear	Organic Carbon	Vegetative Burning	Ammonium Nitrate including associated water	Ammonium Sulfate	Marine	Unassigned				
18	2000 Emissions Inventory (area of influence emissions inventory, each on a separate line for automated calculations)														
19	PM10	L1= Area 3	12,852	1,415	0.290	1,924	2,235							INDEX	18,715
20		L2= Areas 3,4	32,792	2,066	0.408	3,464	6,942							34,858	45,673
21		Sr= Fresno, Madera	78,388	2,977	0.557	6,636	16,450							105,569	105,008
22		R= SJV	243,115	13,349	2.139	27,324	33,101							324,039	319,028
23	NOx	L1= Area 3						62,380						3	
24		L2= Areas 3,4						103,071						3,4	
25		Sr= Fresno, Madera						168,006						Fresno + Madera	
26		R= SJV						672,579						SJV Total	
27	ROG	L1= Area 3		20,834		19,683								3	
28		L2= Areas 3,4		30,979		39,591								3,4	
29		Sr= Fresno, Madera		54,505		63,131								Fresno + Madera	
30		R= SJV		198,230		235,186								SJV Total	
31	SOx	L1= Area 3							4,053					3	
32		L2= Areas 3,4							6,670					3,4	
33		Sr= Fresno, Madera								10,689				Fresno + Madera	
34		R= SJV								36,064				SJV Total	
35	2020 Emissions Inventory														
36	PM10 without new controls	L1= Area 3	11,603	0,664	0,483	1,674	1,845							12,267	16,269
37		L2= Areas 3,4	30,178	1,024	0,716	3,142	6,016							31,202	41,076
38		Sr= Fresno, Madera	72,109	1,481	0,983	5,992	14,657							96,431	95,223
39		R= SJV	222,539	6,091	3,697	22,854	28,907							290,329	284,088
40	PM10 with new controls	L1= Area 3	11,603	0,655	0,483	1,656	1,845							12,258	16,243
41		L2= Areas 3,4	30,178	1,010	0,716	3,110	6,016							31,189	41,030
42		Sr= Fresno, Madera	72,109	1,461	0,983	5,931	14,657							96,326	95,142
43		R= SJV	222,539	6,010	3,697	22,619	28,907							290,013	283,773
44	NOx without new controls	L1= Area 3						27,634						3	
45		L2= Areas 3,4						51,292						3,4	
46		Sr= Fresno, Madera						85,834						Fresno + Madera	
47		R= SJV						344,977						SJV Total	
48	NOx with new controls	L1= Area 3						27,634						3	
49		L2= Areas 3,4						51,292						3,4	
50		Sr= Fresno, Madera						81,563						Fresno + Madera	
51		R= SJV						327,808						SJV Total	
52	ROG without new controls	L1= Area 3		8,637		21,340								3	
53		L2= Areas 3,4		13,326		44,105								3,4	
54		Sr= Fresno, Madera		25,561		72,202								Fresno + Madera	
55		R= SJV		86,994		256,365								SJV Total	
56	ROG with new controls	L1= Area 3		8,637		21,237								3	
57		L2= Areas 3,4		13,326		43,892								3,4	
58		Sr= Fresno, Madera		25,465		71,854								Fresno + Madera	
59		R= SJV		86,669		255,130								SJV Total	
60	SOx without new controls	L1= Area 3							4,682					3	
61		L2= Areas 3,4							7,676					3,4	
62		Sr= Fresno, Madera							12,371					Fresno + Madera	
63		R= SJV							28,938					SJV Total	
64	SOx with new controls	L1= Area 3							4,682					3	
65		L2= Areas 3,4							7,676					3,4	
66		Sr= Fresno, Madera							12,102					Fresno + Madera	
67		R= SJV							28,308					SJV Total	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Fresno Annual Analysis Model Input Data from 2000 evaluated by CMB and Speciated Rollback Input data Annual Average 50 Emissions projections used to predict relative change to 2005 and 2020		Geologic and Construction	Mobile Exhaust	Tire and Brake Wear	Organic Carbon	Vegetative Burning	Ammonium Nitrate including associated water	Ammonium Sulfate	Marine	Unassigned				
68	2005 Rollback Projection									IMS95					
69	Local Contribution PM2.5-PM10 Area of Influence	= (2020 L1/2000 L1) * LINE 4	9.8	0.5	0.5	0.8	0.4	0.5	1.5	3.5	0.9		1.9		
70	Local Contribution Area of Influence of PM2.5	= (2020 L2/2000 L2) * LINE 5	2.1	0.3	0.3	0.2	0.2	0.3	1.0	2.2	0.6		0.4		
71	Sub regional Contribution	= (2020 Sr1/2000 Sr2) * LINE 6	1.4	0.2	0.2	0.1	0.1	0.2	0.5	1.1	0.3		0.3		
72	Regional Contribution	= (2020 R/2000 R) * LINE 7	0.7	0.1	0.1	0.1	0.0	0.0	0.2	0.4	0.1		0.1		
73	+ Natural Background contribution	= LINE 2	4.0	0.0		0.0	0.5		1.6	1.0	1.0	0.0	0.0		
74	2020 projected Annual Result	41.95	18.1	1.1	1.0	1.2	1.2	1.0	4.7	8.1	2.8	0.0	2.7		
75	2020 Rollback Projection with additional controls									IMS95					
76	Local Contribution PM2.5-PM10 Area of Influence	= (2020 L1/2000 L1) * LINE 4	9.8	0.5	0.5	0.8	0.4	0.5	1.5	3.5	0.9		1.9		
77	Local Contribution Area of Influence of PM2.5	= (2020 L2/2000 L2) * LINE 5	2.1	0.3	0.3	0.2	0.2	0.3	1.0	2.2	0.6		0.4		
78	Sub regional Contribution	= (2020 Sr1/2000 Sr2) * LINE 6	1.4	0.2	0.2	0.1	0.1	0.2	0.5	1.1	0.3		0.3		
79	Regional Contribution	= (2020 R/2000 R) * LINE 7	0.7	0.1	0.1	0.1	0.0	0.0	0.2	0.4	0.1		0.1		
80	+ Natural Background contribution	= LINE 2	4.0	0.0		0.0	0.5		1.6	1.0	1.0	0.0	0.0		
81	2020-2021 projected Annual Result?	41.87	18.1	1.1	1.0	1.2	1.2	1.0	4.7	8.1	2.8	0.0	2.7		
82										Linear					
83	2020 projected Annual Result		39.93										2.4		
84	Modeling comparisons		41.87										1.6		
85			41.66										0.8		
86			41.15										0.3		
87			41.77										5.2		
88															
89										CMAQ					
90													3.3		
91													2.1		
92													1.1		
93													0.4		
94													6.9		

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
1	Kern Annual Analysis Model Input Data from 2000 evaluated by CMB and Speciated Rollback Input data Annual Average 57 Emissions projections used to predict relative change to 2005 and 2020		Geologic and Construction	Mobile Exhaust		Tire and Brake Wear		Organic Carbon	Vegetative Burning		Ammonium Nitrate including associated water	Ammonium Sulfate	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	67.00	26.70	3.60	1.10	1.89	4.41	14.90	3.00	0.00	1.4					
4	Line2 Natural and Transport Contribution, see "Background" sheet	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	see background sheet for numerical estimate and episode adjustment. 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	see background sheet for numerical estimate and episode adjustment. Removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions. = 20%	see background sheet for numerical estimate and episode adjustment. Removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic. =20% + 10%	see background sheet for numerical estimate and episode adjustment. Removed prior to rollback as not subject to local control, added back to projected future concentrations	see background sheet for numerical estimate and episode adjustment. 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, background estimate at maximum, no additional background estimate for unexplained mass					
5	LINE 2	7.70	4.0	0.0	0.0	0.4	1.3	1.0	1.0							
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	49.30	22.7	3.6	1.1	1.5	3.1	13.9	2.0	0.0	1.4					
8	Line4 Local Contribution PM2.5-PM10 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	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net, non-linear rollback	70%PM10 50%PM2.5 of net	X	70%PM10 50%PM2.5 of net					
9	LINE 4	29.69	15.9	1.8	0.8	0.8	1.5	7.0	1.0			1.0				
10	Line5 Local Contribution 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	15%PM10 30%PM2.5	15%PM10 30%PM2.5	15%PM10 30%PM2.5	15%PM10 30%PM2.5	15%PM10 30%PM2.5	15%PM10 30%PM2.5 non-linear rollback	15%PM10 30%PM2.5			15%PM10 30%PM2.5				
11	LINE 5	11.01	3.4	1.1	0.2	0.45	0.9	4.2	0.6			0.2				
12	Line6 Sub regional Contribution	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	10%PM10 15%PM2.5	10%PM10 15%PM2.5	10%PM10 15%PM2.5	10%PM10 15%PM2.5	10%PM10 15%PM2.5	10%PM10 15%PM2.5 non-linear rollback	10%PM10 15%PM2.5			10%PM10 15%PM2.5				
13	LINE 6	6.13	2.3	0.5	0.1	0.23	0.5	2.09	0.39			0.1				
14	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	5%PM10 5%PM2.5	5%PM10 5%PM2.5	5%PM10 5%PM2.5	5%PM10 5%PM2.5	5%PM10 5%PM2.5	5%PM10 5%PM2.5 non-linear rollback	5%PM10 5%PM2.5			5%PM10 5%PM2.5				
15	LINE 7	2.46	1.1	0.2	0.1	0.08	0.2	0.70	0.10		0.1					
16	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	PM10 paved roads+ PM10 unpaved roads+ PM10 off road mobile+ PM10 farm operations+ PM10 construction+ PM10 windblown	PM10, ROG & CO onroad mobile+ PM10, ROG & CO 860 offroad equipment PM10, ROG & CO 870 farm equipment CO presumed to add minimal mass	Tire and brake wear as predicted by EMFAC2002	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM10 & CO Area, Stationary CO presumed to add minimal mass	PM10 & CO residential burning PM10 & CO waste burning and disposal PM10 cooking PM10 & 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 PM10					
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	O
	Kern Annual Analysis Model Input Data from 2000 evaluated by CMB and Speciated Rollback Input data Annual Average 57 Emissions projections used to predict relative change to 2005 and 2020		Geologic and Construction	Mobile Exhaust	Tire and Brake Wear	Organic Carbon	Vegetative Burning	Ammonium Nitrate including associated water	Ammonium Sulfate	Marine	Unassigned				
18	2020 Emissions Inventory (area of influence emissions inventory, each on a separate line for automated calculations)														
19	PM10	L1= 12	14,173	3,580		0.394	3,337			2,003				INDEX	
20		L2= Kern	35,968	4,336		0.472	7,439			3,516				17,753	12
21		Sr= Kern	35,968	4,336		0.472	7,439			3,516				52,033	Kern
22		R= SJV	243,115	13,349		2,139	27,324			33,101				52,033	Kern
23	NOx	L1= 12										129,613		324,039	SJV Total
24		L2= Kern										182,936			12
25		Sr= Kern										182,936			Kern
26		R= SJV										672,579			SJV Total
27	ROG	L1= 12		24,978			31,373								12
28		L2= Kern		34,022			64,235								Kern
29		Sr= Kern		34,022			64,235								Kern
30		R= SJV		198,230			235,186								SJV Total
31	SOx	L1= 12									3,527				12
32		L2= Kern									12,090				Kern
33		Sr= Kern									12,090				Kern
34		R= SJV									36,064				SJV Total
35	2020 Emissions Inventory														
36	PM10 without new controls	L1= 12	13,913	1,399		0.697	2,731			1,633				15,312	12
37		L2= Kern	35,308	1,695		0.834	6,088			2,942				47,051	Kern
38		Sr= Kern	35,308	1,695		0.834	6,088			2,942				47,051	Kern
39		R= SJV	222,539	6,091		3,697	22,854			28,907				290,329	SJV Total
40	PM10 with new controls	L1= 12	13,913	1,381		0.697	2,703			1,633				15,294	12
41		L2= Kern	35,308	1,672		0.834	6,026			2,942				46,999	Kern
42		Sr= Kern	35,308	1,672		0.834	6,026			2,942				46,999	Kern
43		R= SJV	222,539	6,010		3,697	22,619			28,907				290,013	SJV Total
44	NOx without new controls	L1= 12									63,890				12
45		L2= Kern									92,449				Kern
46		Sr= Kern									92,449				Kern
47		R= SJV									344,977				SJV Total
48	NOx with new controls	L1= 12									63,890				12
49		L2= Kern									87,848				Kern
50		Sr= Kern									87,848				Kern
51		R= SJV									327,808				SJV Total
52	ROG without new controls	L1= 12		10,422			26,536								12
53		L2= Kern		14,501			54,331								Kern
54		Sr= Kern		14,501			54,331								Kern
55		R= SJV		86,994			256,365								SJV Total
56	ROG with new controls	L1= 12		10,422			26,498								12
57		L2= Kern		14,447			54,069								Kern
58		Sr= Kern		14,447			54,069								Kern
59		R= SJV		86,669			255,130								SJV Total
60	SOx without new controls	L1= 12									1,440				12
61		L2= Kern									5,054				Kern
62		Sr= Kern									5,054				Kern
63		R= SJV									28,938				SJV Total
64	SOx with new controls	L1= 12									1,440				12
65		L2= Kern									4,944				Kern
66		Sr= Kern									4,944				Kern
67		R= SJV									28,308				SJV Total

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Kern Annual Analysis Model Input Data from 2000 evaluated by CMB and Speciated Rollback Input data Annual Average 57 Emissions projections used to predict relative change to 2005 and 2020		Geologic and Construction	Mobile Exhaust	Tire and Brake Wear	Organic Carbon	Vegetative Burning		Ammonium Nitrate including associated water	Ammonium Sulfate	Marine	Unassigned			
68	2020 Rollback Projection									IMS95					
69	Local Contribution PM2.5-PM10 Area of Influence	=(2020 L1/2000 L1) * LINE 4	15.6	0.4	0.4	1.4	0.3	0.3	1.3	4.6	0.4	0.8			
70	Local Contribution Area of Influence of PM2.5	=(2020 L2/2000 L2) * LINE 5	3.3	0.2	0.2	0.3	0.2	0.2	0.8	2.8	0.3	0.2			
71	Sub regional Contribution	=(2020 Sr1/2000 Sr2) * LINE 6	2.2	0.1	0.1	0.2	0.1	0.1	0.4	1.4	0.1	0.1			
72	Regional Contribution	=(2020 R/2000 R) * LINE 7	1.0	0.0	0.0	0.1	0.0	0.0	0.1	0.5	0.1	0.1			
73	+ Natural Background contribution	= LINE 2	4.0	0.0		0.0	0.4		1.3	1.0	1.0	0.0			
74	2020 projected Annual Result	48.90	26.2	0.7	0.8	1.9	1.0	0.6	3.9	10.3	1.9	0.0			
75	2020 Rollback Projection with additional controls								IMS95						
76	Local Contribution PM2.5-PM10 Area of Influence	=(2020 L1/2000 L1) * LINE 4	15.6	0.3	0.4	1.4	0.3	0.3	1.3	4.6	0.4	0.8			
77	Local Contribution Area of Influence of PM2.5	=(2020 L2/2000 L2) * LINE 5	3.3	0.2	0.2	0.3	0.2	0.2	0.8	2.7	0.2	0.2			
78	Sub regional Contribution	=(2020 Sr1/2000 Sr2) * LINE 6	2.2	0.1	0.1	0.2	0.1	0.1	0.4	1.4	0.1	0.1			
79	Regional Contribution	=(2020 R/2000 R) * LINE 7	1.0	0.0	0.0	0.1	0.0	0.0	0.1	0.5	0.1	0.1			
80	+ Natural Background contribution	= LINE 2	4.0	0.0		0.0	0.4		1.3	1.0	1.0	0.0			
81	2020-2021 projected Annual Result?	48.35	26.2	0.7	0.8	1.9	1.0	0.6	3.9	10.1	1.9	0.0			
82									Linear						
83	2020 projected Annual Result		45.97							3.4					
84	Modeling comparisons		48.35							2.0					
85			48.09							1.0					
86			47.47							9.3					
87			48.22							6.8					
88															
89										CMAQ					
90										4.5					
91										2.6					
92										1.3					
93										0.4					
94										8.9					

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
1	Kings Annual Analysis Model Input Data from 2000 evaluated by CMB and Speciated Rollback Input data Annual Average 53 Emissions projections used to predict relative change to 2005 and 2020		Geologic and Construction	Mobile Exhaust		Tire and Brake Wear		Organic Carbon	Vegetative Burning		Ammonium Nitrate including associated water	Ammonium Sulfate	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	63.00	23.20	4.00	0.50	1.98	4.62	15.70	3.00	0.00	0					
4	Line2 Natural and Transport Contribution, see "Background" sheet	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	see background sheet for numerical estimate and episode adjustment. 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	see background sheet for numerical estimate and episode adjustment. Removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions. = 20%	see background sheet for numerical estimate and episode adjustment. Removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic. =20% + 10%	see background sheet for numerical estimate and episode adjustment. Removed prior to rollback as not subject to local control, added back to projected future concentrations	see background sheet for numerical estimate and episode adjustment. 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, background estimate at maximum, no additional background estimate for unexplained mass					
5	LINE 2	7.78	4.0	0.0	0.0	0.4	1.4	1.0	1.0							
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	45.22	19.2	4.0	0.5	1.6	3.2	14.7	2.0	0.0	0.0					
8	Line4 Local Contribution PM2.5-PM10 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	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net, non-linear rollback	70%PM10 50%PM2.5 of net	X	70%PM10 50%PM2.5 of net					
9	LINE 4	26.55	13.4	2.0	0.4	0.8	1.6	7.4	1.0			0.0				
10	Line5 Local Contribution 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	15%PM10 30%PM2.5	15%PM10 30%PM2.5	15%PM10 30%PM2.5	15%PM10 30%PM2.5	15%PM10 30%PM2.5	15%PM10 30%PM2.5 non-linear rollback	15%PM10 30%PM2.5			15%PM10 30%PM2.5				
11	LINE 5	10.61	2.9	1.2	0.1	0.48	1.0	4.4	0.6			0.0				
12	Line6 Sub regional Contribution	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	10%PM10 15%PM2.5	10%PM10 15%PM2.5	10%PM10 15%PM2.5	10%PM10 15%PM2.5	10%PM10 15%PM2.5	10%PM10 15%PM2.5 non-linear rollback	10%PM10 15%PM2.5			10%PM10 15%PM2.5				
13	LINE 6	5.90	1.9	0.6	0.1	0.24	0.5	2.21	0.39			0.0				
14	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	5%PM10 5%PM2.5	5%PM10 5%PM2.5	5%PM10 5%PM2.5	5%PM10 5%PM2.5	5%PM10 5%PM2.5	5%PM10 5%PM2.5 non-linear rollback	5%PM10 5%PM2.5			5%PM10 5%PM2.5				
15	LINE 7	2.26	1.0	0.2	0.0	0.08	0.2	0.74	0.10		0.0					
16	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	PM10 paved roads+ PM10 unpaved roads+ PM10 off road mobile+ PM10 farm operations+ PM10 construction+ PM10 windblown	PM10, ROG & CO onroad mobile+ PM10, ROG & CO 860 offroad equipment PM10, ROG & CO 870 farm equipment CO presumed to add minimal mass	Tire and brake wear as predicted by EMFAC2002	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM10 & CO Area, Stationary CO presumed to add minimal mass	PM10 & CO residential burning PM10 & CO waste burning and disposal PM10 cooking PM10 & 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 PM10					
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	O
	Kings Annual Analysis Model Input Data from 2000 evaluated by CMB and Speciated Rollback Input data Annual Average 53 Emissions projections used to predict relative change to 2005 and 2020		Geologic and Construction	Mobile Exhaust		Tire and Brake Wear	Organic Carbon		Vegetative Burning	Ammonium Nitrate including associated water	Ammonium Sulfate	Marine	Unassigned		
18	2020 Emissions Inventory (area of influence emissions inventory, each on a separate line for automated calculations)														
19		PM10	L1= Area 5	10,511	0.523	0.068	0.381		1.092					INDEX	
20			L2= Areas 5,6,7,8	39,609	1.415	0.274	3.243		5.338					11,035	12,576
21			Sr= Tulare, Kings	49,129	1.677	0.303	4.444		5.465					41,024	49,879
22			R= SJV	243,115	13,349	2.139	27,324		33,101					63,229	61,018
23		NOx	L1= Area 5							27,300				324,039	319,028
24			L2= Areas 5,6,7,8							52,094				5	
25			Sr= Tulare, Kings							93,445				5,678	
26			R= SJV							672,579				Tulare + Kings	
27		ROG	L1= Area 5		5,517			14,537						5	
28			L2= Areas 5,6,7,8		25,513			41,745						5,678	
29			Sr= Tulare, Kings		32,263			37,709						Tulare + Kings	
30			R= SJV		198,230			235,186						5	
31		SOx	L1= Area 5								2,875			5	
32			L2= Areas 5,6,7,8								5,255			5,678	
33			Sr= Tulare, Kings								3,926			Tulare + Kings	
34			R= SJV								36,064			5	
35		2020 Emissions Inventory													
36		PM10 without new controls	L1= Area 5	9,129	0.206	0.118	0.389		0.983					9,335	10,825
37			L2= Areas 5,6,7,8	36,179	0.690	0.480	2,736		4,911					36,859	44,988
38			Sr= Tulare, Kings	44,547	0.783	0.532	3,958		4,988					57,530	54,809
39			R= SJV	222,539	6,091	3,697	22,854		28,907					290,329	284,088
40		PM10 with new controls	L1= Area 5	9,129	0.203	0.118	0.385		0.983					9,332	10,818
41			L2= Areas 5,6,7,8	36,179	0.671	0.480	2,709		4,911					36,850	44,951
42			Sr= Tulare, Kings	44,547	0.773	0.532	3,918		4,988					57,467	54,758
43			R= SJV	222,539	6,010	3,697	22,619		28,907					290,013	283,773
44		NOx without new controls	L1= Area 5							14,475				5	
45			L2= Areas 5,6,7,8							40,793				5,678	
46			Sr= Tulare, Kings							45,301				Tulare + Kings	
47			R= SJV							344,977				5	
48		NOx with new controls	L1= Area 5							14,475				5	
49			L2= Areas 5,6,7,8							40,793				5,678	
50			Sr= Tulare, Kings							43,046				Tulare + Kings	
51			R= SJV							327,808				5	
52		ROG without new controls	L1= Area 5		2,736			17,489						5	
53			L2= Areas 5,6,7,8		11,526			51,369						5,678	
54			Sr= Tulare, Kings		16,846			47,274						Tulare + Kings	
55			R= SJV		86,994			256,365						5	
56		ROG with new controls	L1= Area 5		2,736			17,405						5	
57			L2= Areas 5,6,7,8		11,526			51,122						5,678	
58			Sr= Tulare, Kings		16,783			47,046						Tulare + Kings	
59			R= SJV		86,669			255,130						5	
60		SOx without new controls	L1= Area 5								2,974			5	
61			L2= Areas 5,6,7,8								3,963			5,678	
62			Sr= Tulare, Kings								1,918			Tulare + Kings	
63			R= SJV								28,938			5	
64		SOx with new controls	L1= Area 5								2,974			5	
65			L2= Areas 5,6,7,8								3,963			5,678	
66			Sr= Tulare, Kings								1,876			Tulare + Kings	
67			R= SJV								28,308			5	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Kings Annual Analysis Model Input Data from 2000 evaluated by CMB and Speciated Rollback Input data Annual Average 53 Emissions projections used to predict relative change to 2005 and 2020		Geologic and Construction	Mobile Exhaust	Tire and Brake Wear	Organic Carbon	Vegetative Burning	Ammonium Nitrate including associated water	Ammonium Sulfate	Marine	Unassigned				
68	2005 Rollback Projection									IMS95					
69	Local Contribution PM2.5-PM10 Area of Influence	=(2020 L1/2000 L1) * LINE 4	11.7	0.4	0.5	0.6	0.4	0.5	1.5	5.0	1.0		0.0		
70	Local Contribution Area of Influence of PM2.5	=(2020 L2/2000 L2) * LINE 5	2.6	0.3	0.3	0.1	0.2	0.3	0.9	2.9	0.5		0.0		
71	Sub regional Contribution	=(2020 Sr1/2000 Sr2) * LINE 6	1.7	0.1	0.2	0.1	0.1	0.1	0.4	1.5	0.1		0.0		
72	Regional Contribution	=(2020 R/2000 R) * LINE 7	0.9	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.1		0.0		
73	+ Natural Background contribution	= LINE 2	4.0	0.0		0.0	0.4		1.4	1.0	1.0		0.0		
74	2020 projected Annual Result	43.70	20.9	0.9	1.0	0.9	1.1	1.0	4.3	10.9	2.7		0.0		
75	2020 Rollback Projection with additional controls									IMS95					
76	Local Contribution PM2.5-PM10 Area of Influence	=(2020 L1/2000 L1) * LINE 4	11.7	0.4	0.5	0.6	0.4	0.5	1.5	5.0	1.0		0.0		
77	Local Contribution Area of Influence of PM2.5	=(2020 L2/2000 L2) * LINE 5	2.6	0.3	0.3	0.1	0.2	0.3	0.9	2.9	0.5		0.0		
78	Sub regional Contribution	=(2020 Sr1/2000 Sr2) * LINE 6	1.7	0.1	0.2	0.1	0.1	0.1	0.4	1.4	0.1		0.0		
79	Regional Contribution	=(2020 R/2000 R) * LINE 7	0.9	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.1		0.0		
80	+ Natural Background contribution	= LINE 2	4.0	0.0		0.0	0.4		1.4	1.0	1.0		0.0		
81	2020-2021 projected Annual Result?	43.63	20.9	0.9	1.0	0.9	1.1	1.0	4.3	10.9	2.7		0.0		
82	2020 projected Annual Result									Linear					
83	Modeling comparisons		41.22										3.9		
84			43.63										2.2		
85			43.36										1.0		
86			42.74										9.4		
87			43.49										7.5		
88															
89										CMAQ					
90													4.9		
91													2.9		
92													1.4		
93													0.5		
94													9.6		

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
	Tulare Annual Analysis Model Input Data from 2000 evaluated by CMB and Speciated Rollback Input data Annual Average 53 Emissions projections used to predict relative change to 2005 and 2020		Geologic and Construction	Mobile Exhaust		Tire and Brake Wear		Organic Carbon	Vegetative Burning		Ammonium Nitrate including associated water	Ammonium Sulfate	Marine	Unassigned		
1	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	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.				
2	LINE 1	53.00	21.70	4.00	0.50	2.01	4.69	15.90	3.10	0.00	1.1					
3	Line2 Natural and Transport Contribution, see "Background" sheet	Portion not included in rollback analysis, removed prior to rollback as not subject to local control, added back to projected future concentrations	see background sheet for numerical estimate and episode adjustment. 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	see background sheet for numerical estimate and episode adjustment. Removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes biogenic emissions. = 20%	see background sheet for numerical estimate and episode adjustment. Removed prior to rollback as not subject to local control, added back to projected future concentrations. Includes wildfires and biogenic. =20% + 10%	see background sheet for numerical estimate and episode adjustment. Removed prior to rollback as not subject to local control, added back to projected future concentrations	see background sheet for numerical estimate and episode adjustment. 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, background estimate at maximum, no additional background estimate for unexplained mass					
4	LINE 2	7.81	4.0	0.0	0.0	0.4	1.4	1.0	1.0							
5	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				
6	LINE 3	45.19	17.7	4.0	0.5	1.6	3.3	14.9	2.1	0.0	1.1					
7	Line4 Local Contribution PM2.5-PM10 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	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net	70%PM10 50%PM2.5 of net, non-linear rollback	70%PM10 50%PM2.5 of net	X	70%PM10 50%PM2.5 of net					
8	LINE 4	26.46	12.4	2.0	0.4	0.8	1.6	7.5	1.1			0.8				
9	Line5 Local Contribution 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	15%PM10 30%PM2.5	15%PM10 30%PM2.5	15%PM10 30%PM2.5	15%PM10 30%PM2.5	15%PM10 30%PM2.5	15%PM10 30%PM2.5 non-linear rollback	15%PM10 30%PM2.5			15%PM10 30%PM2.5				
10	LINE 5	10.66	2.7	1.2	0.1	0.48	1.0	4.5	0.6			0.2				
11	Line6 Sub regional Contribution	Rolled back against specified County(ies) emission estimates - episode specific adjustments based on meteorology and episode duration	10%PM10 15%PM2.5	10%PM10 15%PM2.5	10%PM10 15%PM2.5	10%PM10 15%PM2.5	10%PM10 15%PM2.5	10%PM10 15%PM2.5 non-linear rollback	10%PM10 15%PM2.5			0.1				
12	LINE 6	5.91	1.8	0.6	0.1	0.24	0.5	2.24	0.32			0.1				
13	Line7 Regional Contribution	Rolled back against Valleywide emission estimates - episode specific adjustments based on meteorology and episode duration	5%PM10 5%PM2.5	5%PM10 5%PM2.5	5%PM10 5%PM2.5	5%PM10 5%PM2.5	5%PM10 5%PM2.5	5%PM10 5%PM2.5 non-linear rollback	5%PM10 5%PM2.5			0.1				
14	LINE 7	2.26	0.9	0.2	0.0	0.08	0.2	0.75	0.11		0.1					
15	Associated Emissions Categories	Based upon appropriate seasonal or annual inventory	PM10 paved roads+ PM10 unpaved roads+ PM10 off road mobile+ PM10 farm operations+ PM10 construction+ PM10 windblown	PM10, ROG & CO onroad mobile+ PM10, ROG & CO 860 offroad equipment PM10, ROG & CO 870 farm equipment CO presumed to add minimal mass	Tire and brake wear as predicted by EMFAC2002	Total ROG minus motor vehicle, OC may also include a small portion of otherwise unassigned elemental carbon PM10 & CO Area, Stationary CO presumed to add minimal mass	PM10 & CO residential burning PM10 & CO waste burning and disposal PM10 cooking PM10 & 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 PM10					
16	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	O
	Tulare Annual Analysis Model Input Data from 2000 evaluated by CMB and Speciated Rollback Input data Annual Average 53 Emissions projections used to predict relative change to 2005 and 2020		Geologic and Construction	Mobile Exhaust	Tire and Brake Wear	Organic Carbon	Vegetative Burning	Ammonium Nitrate including associated water	Ammonium Sulfate	Marine	Unassigned				
18	2000 Emissions Inventory (area of influence emissions inventory, each on a separate line for automated calculations)														
19	PM10	L1= Area 7	12,078	0.567		0.141	1,453		2,115					INDEX	16,355
20		L2= Areas 5,6,7,8	39,609	1,415		0.274	3,243		5,338					5,6,7,8	49,879
21		Sr= Kings, Tulare	49,129	1,677		0.303	4,444		5,465					Tulare + Kings	61,018
22		R= SJV	243,115	13,349		2,139	27,324		33,101					SJV Total	319,028
23	NOx	L1= Area 7								32,505				7	
24		L2= Areas 5,6,7,8								52,084				5,6,7,8	
25		Sr= Kings, Tulare								93,445				Tulare + Kings	
26		R= SJV								672,579				SJV Total	
27	ROG	L1= Area 7		13,231			16,075							7	
28		L2= Areas 5,6,7,8		25,513			41,745							5,6,7,8	
29		Sr= Kings, Tulare		32,263			37,709							Tulare + Kings	
30		R= SJV		198,230			235,186							SJV Total	
31	SOx	L1= Area 7								1,589				7	
32		L2= Areas 5,6,7,8								5,255				5,6,7,8	
33		Sr= Kings, Tulare								3,926				Tulare + Kings	
34		R= SJV								36,064				SJV Total	
35	2020 Emissions Inventory														
36	PM10 without new controls	L1= Area 7	11,613	0.315		0.249	0.937		1,903					INDEX	15,016
37		L2= Areas 5,6,7,8	36,179	0.690		0.480	2,736		4,911					5,6,7,8	44,988
38		Sr= Kings, Tulare	44,547	0.783		0.532	3,958		4,988					Tulare + Kings	54,809
39		R= SJV	222,539	6,091		3,697	22,854		28,907					SJV Total	284,088
40	PM10 with new controls	L1= Area 7	11,613	0.310		0.249	0.927		1,903					INDEX	15,002
41		L2= Areas 5,6,7,8	36,179	0.671		0.480	2,709		4,911					5,6,7,8	44,951
42		Sr= Kings, Tulare	44,547	0.773		0.532	3,918		4,988					Tulare + Kings	54,758
43		R= SJV	222,539	6,010		3,697	22,619		28,907					SJV Total	283,773
44	NOx without new controls	L1= Area 7								15,026				7	
45		L2= Areas 5,6,7,8								40,793				5,6,7,8	
46		Sr= Kings, Tulare								45,301				Tulare + Kings	
47		R= SJV								344,977				SJV Total	
48	NOx with new controls	L1= Area 7								15,026				7	
49		L2= Areas 5,6,7,8								40,793				5,6,7,8	
50		Sr= Kings, Tulare								43,046				Tulare + Kings	
51		R= SJV								327,808				SJV Total	
52	ROG without new controls	L1= Area 7		5,511			19,995							7	
53		L2= Areas 5,6,7,8		11,526			51,369							5,6,7,8	
54		Sr= Kings, Tulare		16,846			47,274							Tulare + Kings	
55		R= SJV		86,994			256,365							SJV Total	
56	ROG with new controls	L1= Area 7		5,511			19,898							7	
57		L2= Areas 5,6,7,8		11,526			51,122							5,6,7,8	
58		Sr= Kings, Tulare		16,783			47,046							Tulare + Kings	
59		R= SJV		86,669			255,130							SJV Total	
60	SOx without new controls	L1= Area 7								0.625				7	
61		L2= Areas 5,6,7,8								3,963				5,6,7,8	
62		Sr= Kings, Tulare								1,918				Tulare + Kings	
63		R= SJV								28,938				SJV Total	
64	SOx with new controls	L1= Area 7								0.625				7	
65		L2= Areas 5,6,7,8								3,963				5,6,7,8	
66		Sr= Kings, Tulare								1,876				Tulare + Kings	
67		R= SJV								28,308				SJV Total	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Tulare Annual Analysis Model Input Data from 2000 evaluated by CMB and Speciated Rollback Input data Annual Average 53 Emissions projections used to predict relative change to 2005 and 2020		Geologic and Construction	Mobile Exhaust	Tire and Brake Wear	Organic Carbon	Vegetative Burning			Ammonium Nitrate including associated water	Ammonium Sulfate	Marine	Unassigned		
68	2005 Rollback Projection									IMS95					
69	Local Contribution PM2.5-PM10 Area of Influence	=(2020 L1/2000 L1) * LINE 4	11.9	0.6	0.4	0.6	0.3	0.5	1.5	4.8	0.4		0.7		
70	Local Contribution Area of Influence of PM2.5	=(2020 L2/2000 L2) * LINE 5	2.4	0.3	0.3	0.1	0.2	0.3	0.9	3.0	0.5		0.1		
71	Sub regional Contribution	=(2020 Sr1/2000 Sr2) * LINE 6	1.6	0.1	0.2	0.1	0.1	0.2	0.4	1.5	0.2		0.1		
72	Regional Contribution	=(2020 R/2000 R) * LINE 7	0.8	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.1		0.0		
73	+ Natural Background contribution	= LINE 2	4.0	0.0		0.0	0.4		1.4	1.0	1.0	0.0	0.0		
74	2020 projected Annual Result	43.83	20.8	1.0	0.9	0.9	1.0	1.0	4.4	10.7	2.1	0.0	1.0		
75	2020 Rollback Projection with additional controls									IMS95					
76	Local Contribution PM2.5-PM10 Area of Influence	=(2020 L1/2000 L1) * LINE 4	11.9	0.5	0.4	0.6	0.3	0.5	1.5	4.8	0.4		0.7		
77	Local Contribution Area of Influence of PM2.5	=(2020 L2/2000 L2) * LINE 5	2.4	0.3	0.3	0.1	0.2	0.3	0.9	3.0	0.5		0.1		
78	Sub regional Contribution	=(2020 Sr1/2000 Sr2) * LINE 6	1.6	0.1	0.2	0.1	0.1	0.2	0.4	1.5	0.2		0.1		
79	Regional Contribution	=(2020 R/2000 R) * LINE 7	0.8	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.1		0.0		
80	+ Natural Background contribution	= LINE 2	4.0	0.0		0.0	0.4		1.4	1.0	1.0	0.0	0.0		
81	2020 projected Annual Result (IMS95)	43.74	20.8	1.0	0.9	0.9	1.0	1.0	4.4	10.7	2.1	0.0	1.0		
82										Linear					
83	2020 projected Annual Result		41.14							Linear			3.4		
84	Modeling comparisons		43.74							IMS95 nitrate modeling			2.2		
85			43.46							CMAQ nitrate modeling			1.1		
86			42.78							Average of all three			0.4		
87			43.60							Average of CMAQ and IMS95			7.1		
88															
89										CMAQ					
90													4.6		
91													2.9		
92													1.4		
93													0.5		
94													9.4		

2000 Annual	Geologic not mobile	Geologic not mobile not windblown	Reg VIII Geologic EIC3 620, 630, 640, 645, 650	PM10 Mobile On-Road	ROG Mobile Exhaust	Tire and Brake Wear	Organic Carbon	Organic Carbon not mobile	Sum of Burning	Burning - RWC EIC3 610	Burning - Ag Burn EIC3 670	Burning - fires EIC3 660	Ammonium Nitrate NOx Total	Sulfate SOx Total	Unassigned PM10 Total
Fresno	64.8678	47.1254	62.9888	2.4220	44.3880	0.4661	5.3370	52.7817	13.0290	2.8344	10.1339	0.0607	131.6643	9.6427	86.4386
Kern	35.9684	29.4767	34.9251	4.3364	34.0221	0.4721	7.4388	64.2353	3.5147	1.8614	1.6365	0.0168	182.9364	12.0897	52.0331
Kings	21.9372	14.1102	20.9250	0.8489	9.1567	0.0963	1.9042	9.5779	0.8760	0.2728	0.5967	0.0065	35.5307	1.3713	25.8331
Madera	13.5198	11.2865	13.2332	0.5553	10.1166	0.0908	1.2992	10.3494	3.4214	0.9981	2.4148	0.0085	34.3422	1.0466	19.1299
Merced	27.8058	19.8515	27.1168	1.7705	14.9839	0.1997	2.0881	19.1348	1.9878	0.7615	1.2155	0.0108	56.1843	1.3531	33.9812
San Joaquin	27.0796	25.1504	25.4878	1.5636	37.8478	0.3567	3.9095	23.6840	2.9839	1.8675	1.1102	0.0062	116.4546	4.8527	37.2066
Stanislaus	24.7442	21.5240	24.1034	1.0241	24.6090	0.2506	2.8079	27.2915	2.6992	1.5984	1.0821	0.0187	60.5526	3.1525	32.0202
Tulare	27.1919	23.7715	26.3300	0.8281	23.1060	0.2070	2.5394	28.1309	4.5893	1.2025	3.3586	0.0282	54.9142	2.5550	37.3958
SJV Total	243.1147	192.2962	235.1101	13.3489	198.2301	2.1393	27.3241	235.1855	33.1013	11.3966	21.5483	0.1564	672.5793	36.0636	324.0385
Fresno + Madera	78.3876	58.4119	76.2220	2.9773	54.5046	0.5569	6.6362	63.1311	16.4504	3.8325	12.5487	0.0692	166.0065	10.6893	105.5685
Stanislaus + Merced	52.5500	41.3755	51.2202	2.7946	39.5929	0.4503	4.8960	46.4263	4.6870	2.3599	2.2976	0.0295	116.7369	4.5056	66.0014
Tulare + Kings	49.1291	37.8817	47.2550	1.6770	32.2627	0.3033	4.4436	37.7088	5.4653	1.4753	3.9553	0.0347	90.4449	3.9263	63.2289

Notes:
 * PM10 on-road mobile distribution not available. used SOx assumed to be the most representative of mobile PM10.
 * TOG footprint
 * Tire wear distribution not available. NOx Mobile assumed to be the most representative for tire and brake wear.
 * No longer includes cooking

Zone EI Calculations

Highlight = used in rollback cell

Area	PM10 not mobile	PM10 not mobile minus Windblown	PM10 Geologic	PM10 Mobile	TOG Mobile Total =F+L	Tire and Brake Wear (using NOx distr)	PM10 Organic Carbon (Stationary sources)	TOG not mobile	Sum of Burning	PM10 RWC SIC 610	PM10 Ag burn SIC 670	PM10- fires SIC 660 (annual and 10/21/99)	NOx Total	SOx Total	PM10 Total (annual only)
Calculation	G	H	J	J	=F+L								Sum of A+B	Sum of C+D	Sum of G+J
1	8.25	7.22	6.37	0.69	14.49	0.17	1.17	5.06	1.20	1.02	0.16	0.01	35.26	2.42	8.94
2a	21.27	15.17	20.36	1.54	12.85	0.17	1.53	16.65	1.67	0.66	1.00	0.01	47.94	1.18	22.82
2b	2.52	2.32	2.42	0.07	1.74	0.02	0.38	5.34	0.23	0.10	0.13	0.00	6.05	0.18	2.69
2c	14.06	12.17	15.13	0.31	8.81	0.07	1.41	21.72	1.28	0.41	0.86	0.01	22.04	0.52	14.37
3	12.85	9.64	7.43	1.41	20.83	0.29	1.92	19.68	2.23	1.93	0.28	0.02	62.38	4.05	14.27
4a	14.16	10.06	13.80	0.29	5.64	0.06	0.78	16.65	3.13	0.60	2.52	0.01	20.77	1.84	14.45
4b	5.78	4.81	5.40	0.36	4.50	0.06	0.76	3.26	1.58	0.35	1.23	0.00	19.92	0.78	6.14
5a	3.10	2.21	3.12	0.05	0.94	0.01	0.15	5.54	0.59	0.08	0.50	0.00	7.42	1.98	3.15
5b	0.93	0.81	1.02	0.01	0.40	0.00	0.04	1.45	0.15	0.00	0.15	0.00	1.11	0.03	0.94
5c	6.48	3.97	5.83	0.46	4.18	0.06	0.19	7.55	0.35	0.19	0.16	0.00	18.77	0.86	6.95
6a	1.13	1.00	1.27	0.00	0.20	0.00	0.02	1.56	0.22	0.01	0.22	0.00	1.13	0.04	1.14
6b	7.56	5.03	7.54	0.12	0.84	0.01	0.88	0.97	0.26	0.02	0.23	0.00	5.77	0.19	7.68
7	12.08	10.57	10.82	0.57	13.23	0.14	1.45	16.07	2.12	0.71	1.39	0.01	32.50	1.59	12.64
8	8.32	7.30	8.57	0.20	5.72	0.05	0.51	8.60	1.65	0.25	1.39	0.01	15.38	0.55	8.53
9	4.64	3.79	5.60	0.06	0.86	0.00	0.46	3.73	0.34	0.01	0.33	0.00	5.26	0.95	4.70
10	6.85	5.22	7.66	0.38	5.50	0.04	0.45	6.45	0.62	0.21	0.41	0.00	17.93	0.73	7.23
11	4.37	3.71	3.55	0.15	0.98	0.02	2.03	18.47	0.22	0.08	0.15	0.00	19.37	6.58	4.52
12	14.17	11.81	11.51	3.58	24.98	0.39	3.34	31.37	2.00	1.52	0.47	0.01	129.61	3.53	17.75
13	5.93	4.95	6.61	0.16	1.71	0.01	1.15	4.21	0.32	0.04	0.28	0.00	10.76	0.60	6.10
Sums															
1,2	46.11	36.89	44.28	2.60	37.90	0.43	4.49	48.77	4.38	2.20	2.16	0.03	111.29	4.31	48.71
3,4	32.79	24.51	26.63	2.07	30.98	0.41	3.46	39.59	6.94	2.88	4.02	0.04	103.07	6.67	34.86
5,6,7,8	39.61	30.88	38.17	1.42	25.51	0.27	3.24	41.75	5.34	1.27	4.04	0.03	82.08	5.26	41.02
5	10.51	8.98	9.97	0.52	5.52	0.07	0.38	14.54	1.09	0.28	0.81	0.01	27.30	2.88	11.03
6	4.03	3.02	4.14	0.06	1.34	0.01	0.19	6.99	0.74	0.09	0.65	0.00	8.53	2.01	4.09
6,8	17.02	13.32	17.38	0.32	6.76	0.06	1.41	11.13	2.13	0.28	1.84	0.01	22.28	0.79	17.34
5,6,7,8,10	46.46	36.09	45.83	1.79	31.02	0.32	3.70	48.20	5.96	1.48	4.45	0.03	100.01	5.98	48.25
9,10,11,12	24.19	20.01	25.38	0.79	13.06	0.11	3.45	37.26	2.84	0.55	2.28	0.01	57.94	8.52	24.98
10,12,13	26.96	21.98	25.78	4.12	32.19	0.45	4.95	42.03	2.95	1.78	1.16	0.01	158.30	4.85	31.08

2000

Annual	Unassigned PM10	NOx Mobile On-Road	NOx not Mobile On-Road	SOx Mobile On-Road	SOx not Mobile On-Road	ROG not Mobile		ROG Mobile On-Road	PM10 Mobile Exhaust	PM10 Area Mobile (sum)	PM10 windblown EIC3 650	PM10-other burning EIC3 690, 699	
	Total w/o Wind	Road	Road	Road	Road	ROG * Total	On-Road	ROG Other Mobile	Road				
Fresno	68.6962	67.1942	64.4701	0.4393	9.2034	97.1697	67.9911	15.2094	29.1786	4.4638	2.0418	17.7424	0.9935
Kern	45.5414	95.3809	87.5555	0.6612	11.4285	98.2574	73.6437	9.4084	24.6137	6.0078	1.6714	6.4917	0.2106
Kings	18.0061	18.4557	17.0750	0.1259	1.2454	18.7346	13.6154	4.0375	5.1192	2.0285	1.1796	7.8270	0.0473
Madera	16.8966	14.1373	20.2049	0.0874	0.9592	20.4660	14.6344	4.2850	5.8316	1.0124	0.4571	2.2333	0.0411
Merced	26.0269	37.4704	18.7139	0.2469	1.1062	34.1187	22.8886	3.7538	11.2301	2.3877	0.6172	7.9543	0.0981
San Joaquin	35.2774	46.1545	70.3001	0.2953	4.5574	61.5318	39.4208	15.7368	22.1110	4.2070	2.6434	1.9292	0.2129
Stanislaus	28.8000	31.9876	28.5650	0.2080	2.9445	51.9005	34.5321	7.2906	17.3184	2.0760	1.0519	3.2202	0.1895
Tulare	33.9754	27.9789	26.9353	0.1687	2.3863	51.2369	35.7860	7.6351	15.4709	1.9401	1.1120	3.4204	0.1451
SJV Total	273.2200	338.7595	333.8198	2.2327	33.8309	433.4156	302.5421	67.3566	190.8735	24.1233	10.7744	50.8185	1.9381
Fresno + Madera	85.5928	81.3315	84.6750	0.5267	10.1626	117.6357	82.6255	19.4944	35.0102	5.4762	2.4989	19.9757	1.0346
Stanislaus + Merced	54.8269	69.4580	47.2789	0.4549	4.0507	86.0192	57.4707	11.0444	28.5485	4.4637	1.6691	11.1745	0.2876
Tulare + Kings	51.9815	46.4346	44.0103	0.2946	3.6317	69.9715	49.3814	11.6726	20.5901	3.9686	2.2916	11.2474	0.1924

Notes:

Zone EI Calculations

Calculation	Area	PM10 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	PM10 Mobile (plus area mobile)	Area Mobile (sum)	PM10 windblown	PM10-other burning (sum)
	Sum of H+J	A	B	C	D	Sum of E+F	E	L	F	J+K	K			
1	7.91	21.41	13.86	0.14	2.28	17.88	6.54	3.15	11.34	1.14	0.45		0.16	
2a	16.71	32.06	15.88	0.21	0.97	29.65	19.90	3.09	9.76	2.05	0.51		0.09	
2b	2.39	2.00	4.05	0.01	0.16	9.36	8.40	0.78	0.96	0.20	0.13		0.01	
2c	12.48	9.51	12.53	0.06	0.46	32.78	27.36	3.40	5.42	0.80	0.49		0.03	
3	11.05	41.82	20.56	0.26	3.80	40.55	25.35	5.63	15.20	2.17	0.76		0.82	
4a	10.35	8.75	12.02	0.05	1.79	24.40	20.98	2.22	3.43	0.59	0.30		0.08	
4b	5.17	8.99	10.93	0.06	0.72	8.09	4.46	0.87	3.63	0.45	0.09		0.02	
5a	2.25	1.40	6.01	0.01	1.97	7.48	6.90	0.36	0.57	0.10	0.05		0.03	
5b	0.82	0.37	0.74	0.00	0.03	2.11	1.80	0.09	0.31	0.02	0.01		0.00	
5c	4.43	10.72	8.05	0.07	0.79	13.40	10.21	0.99	3.19	0.75	0.29		0.04	
6a	1.00	0.10	1.03	0.00	0.04	2.01	1.94	0.13	0.07	0.02	0.02		0.00	
6b	5.15	2.40	3.37	0.02	0.18	1.98	1.33	0.18	0.66	0.17	0.05		0.00	
7	11.14	19.05	13.45	0.12	1.47	30.58	20.22	2.88	10.35	0.99	0.42		0.11	
8	7.50	6.93	8.45	0.04	0.51	14.68	10.88	1.93	3.80	0.48	0.28		0.03	
9	3.85	0.96	4.30	0.01	0.64	4.33	4.15	0.18	0.67	0.09	0.03		0.00	
10	5.60	8.79	9.14	0.06	0.67	10.87	7.98	2.61	2.99	0.84	0.46		0.02	
11	3.86	3.09	16.29	0.02	6.56	21.05	20.33	0.25	0.72	0.20	0.04		0.01	
12	15.39	79.68	49.93	0.55	2.98	55.44	36.45	5.98	18.99	4.64	1.06		0.17	
13	5.12	2.86	7.90	0.03	0.58	6.07	4.74	0.38	1.33	0.23	0.07		0.01	
Sums														
1,2	39.49	64.97	46.32	0.43	3.88	89.67	62.19	10.42	27.48	4.18	1.58	0.00	0.29	
3,4	26.57	59.56	43.51	0.37	6.30	73.04	50.79	8.73	22.25	3.21	1.15	0.00	0.93	
5,6,7,8	32.29	40.98	41.11	0.25	5.00	72.23	53.28	6.57	18.95	2.54	1.12	0.00	0.21	
5	7.51	12.50	14.80	0.08	2.80	22.99	18.92	1.45	4.07	0.88	0.35	0.00	0.07	
6	3.08	1.77	6.75	0.01	2.00	9.59	8.71	0.46	0.88	0.12	0.06	0.00	0.03	
6,8	13.65	9.43	12.85	0.06	0.73	18.67	14.15	2.24	4.53	0.68	0.35	0.00	0.03	
5,6,7,8,10	37.89	49.77	50.25	0.31	5.67	83.10	61.26	9.17	21.84	3.38	1.59	0.00	0.23	
9,10,11,12	20.80	19.76	38.18	0.13	8.39	51.42	43.33	4.97	8.09	1.62	0.82	0.00	0.07	
10,12,13	26.11	91.34	66.97	0.63	4.23	72.38	49.17	8.97	23.22	5.72	1.59	0.00	0.20	

2020 Annual	Geologic not mobile	Geologic not mobile not windblown	Reg VIII Geologic EIC3 620, 630, 640, 645, 650	PM10 Mobile On-Road	ROG Mobile Exhaust	Tire and Brake Wear	Organic Carbon	Organic Carbon not mobile	Sum of Burning	Burning - RWC EIC3 610	Burning - Ag Burn EIC3 670	Burning - fires EIC3 660	Ammonium Nitrate NOx Total	Sulfate SOx Total	Unassigned PM10 Total
Fresno	58.5627	45.0588	56.9964	1.1372	19.8167	0.7768	4.6427	57.2239	11.8807	2.2773	9.5231	0.0803	62.1029	11.2750	77.9175
Kern	35.3078	30.1609	34.0963	1.6949	14.5015	0.8341	6.0882	54.3312	2.9417	1.4718	1.4477	0.0222	92.4491	5.0542	47.0505
Kings	18.4015	12.1510	17.8120	0.3238	5.8846	0.1671	2.3214	12.2832	0.7587	0.2015	0.5487	0.0085	19.2246	0.9142	21.9901
Madera	13.5486	11.8001	13.1969	0.3440	5.7442	0.2063	1.3493	14.9781	2.7764	0.6320	2.1323	0.0121	23.7316	1.0960	18.5137
Merced	24.1347	17.7486	23.4918	0.7041	5.3451	0.3544	1.7222	23.2719	1.6010	0.4837	1.1010	0.0163	27.4307	1.0439	28.5547
San Joaquin	25.1852	23.6701	24.4734	0.9108	15.6027	0.6134	2.6881	27.6059	2.4578	1.4149	1.0341	0.0088	62.8159	6.2678	33.7443
Stanislaus	21.2553	18.7708	20.8017	0.5172	9.1382	0.3796	2.4050	31.6805	2.2607	1.2610	0.9741	0.0256	31.1462	2.2830	27.0180
Tulare	26.1456	23.2812	25.2275	0.4593	10.9614	0.3653	1.6368	34.9904	4.2297	0.8488	3.3430	0.0379	26.0764	1.0037	35.5399
SJV Total	222.5394	182.6415	215.8960	6.0913	86.9944	3.6970	22.8537	256.3651	28.9067	8.5910	20.1040	0.2117	344.9774	28.9378	290.3287
Fresno + Madera	72.1093	56.8589	70.1933	1.4812	25.5609	0.9831	5.9920	72.2020	14.6571	2.9093	11.6554	0.0924	85.8345	12.3710	96.4312
Stanislaus + Merced	45.3900	36.5194	44.0935	1.2213	14.4833	0.7340	4.1272	54.9524	3.8617	1.7447	2.0751	0.0419	58.5769	3.3269	55.5727
Tulare + Kings	44.5471	35.4322	43.0395	0.7831	16.8460	0.5324	3.9582	47.2736	4.9884	1.0503	3.8917	0.0464	45.3010	1.9179	57.5300

Notes:

- * PM10 on-road mobile distribution not available. used SOx assumed to be the most representative of mobile PM10.
- * TOG footprint used
- * Tire wear distribution not available. NOx Mobile assumed to be the most representative for tire and brake wear.
- * No longer includes cooking

Zone EI Calculations

Highlight = used in rollback cell

Area Calculation	PM10 not mobile		PM10 Geologic		PM10 Mobile		PM10 Organic Carbon (Stationary sources)		PM10 RWC SIC 610		PM10 Ag burn SIC 670		PM10- fires SIC 660 (annual and 10/21/99)		NOx Total		SOx Total		PM10 Total (annual only)	
	G	H	minus Windblown				Tire and Brake Wear (using NOx distr)		TOG not mobile	Sum of Burning					Sum of A+B	Sum of C+D	Sum of G+J			
1	7.09	6.30		5.45	0.35		5.08	0.25	1.00	5.88	0.97	0.81	0.15	0.01	17.26	1.76	1.76	7.44		
2a	18.47	13.56		17.64	0.61		4.56	0.30	1.26	20.25	1.34	0.42	0.91	0.01	23.39	0.91	0.91	19.08		
2b	2.35	2.18		2.32	0.04		0.73	0.03	0.26	6.23	0.20	0.08	0.12	0.00	3.36	0.23	0.23	2.38		
2c	12.08	10.62		12.93	0.15		3.48	0.11	1.20	25.21	1.11	0.32	0.77	0.01	12.01	0.37	0.37	12.24		
3	11.60	9.21		6.73	0.66		6.64	0.48	1.67	21.34	1.85	1.55	0.26	0.03	27.63	4.68	4.68	12.27		
4a	12.78	9.62		12.49	0.14		2.65	0.10	0.68	18.05	2.86	0.49	2.36	0.01	10.13	2.17	2.17	12.02		
4b	5.80	5.03		5.38	0.22		2.04	0.13	0.79	4.71	1.31	0.22	1.08	0.01	13.53	0.82	0.82	6.02		
5a	2.80	2.11		2.82	0.02		0.44	0.02	0.13	6.00	0.54	0.07	0.47	0.00	3.93	2.38	2.38	2.82		
5b	0.89	0.79		0.97	0.01		0.17	0.00	0.03	1.81	0.15	0.00	0.15	0.00	0.56	0.01	0.01	0.90		
5c	5.44	3.42		4.96	0.18		2.13	0.10	0.23	9.68	0.29	0.14	0.14	0.00	9.99	0.58	0.58	5.61		
6a	1.09	0.98		1.21	0.00		0.13	0.00	0.02	1.94	0.22	0.00	0.22	0.00	0.61	0.02	0.02	1.09		
6b	6.34	4.33		6.42	0.05		0.42	0.02	1.07	1.24	0.23	0.02	0.22	0.00	3.22	0.13	0.13	6.39		
7	11.61	10.35		10.37	0.31		5.51	0.25	0.94	19.99	1.90	0.50	1.38	0.02	15.03	0.63	0.63	11.93		
8	8.00	7.15		8.21	0.11		2.73	0.09	0.33	10.70	1.57	0.18	1.38	0.01	7.45	0.22	0.22	8.12		
9	4.55	3.87		5.46	0.02		0.35	0.01	0.38	3.16	0.30	0.01	0.29	0.00	2.89	0.28	0.28	4.58		
10	6.72	5.34		7.48	0.15		2.61	0.08	0.37	5.46	0.53	0.16	0.37	0.00	9.14	0.30	0.30	6.87		
11	4.29	3.79		3.47	0.06		0.41	0.03	1.66	15.62	0.19	0.06	0.13	0.00	10.72	2.78	2.78	4.35		
12	13.91	12.09		11.24	1.40		10.42	0.70	2.73	26.54	1.63	1.20	0.42	0.01	63.89	1.44	1.44	15.31		
13	5.82	5.07		6.45	0.06		0.71	0.03	0.94	3.56	0.28	0.04	0.25	0.00	5.80	0.25	0.25	5.89		
Sums																				
1,2	39.98	32.66		38.34	1.15		13.85	0.70	3.73	57.56	3.61	1.63	1.95	0.04	56.02	3.27	3.27	41.13		
3,4	30.18	23.86		24.60	1.02		13.33	0.72	3.14	44.10	6.02	2.26	3.71	0.05	51.29	7.68	7.68	31.20		
5,6,7,8	36.18	29.13		34.98	0.68		11.53	0.48	2.74	51.37	4.91	0.91	3.96	0.04	40.79	3.96	3.96	36.86		
5	9.13	6.32		8.76	0.21		2.74	0.12	0.39	17.49	0.98	0.21	0.77	0.01	14.48	2.97	2.97	9.34		
6	3.69	2.90		3.80	0.03		0.61	0.02	0.16	7.81	0.70	0.07	0.62	0.01	4.48	2.40	2.40	3.72		
6,8	15.44	12.45		15.85	0.16		3.28	0.11	1.41	13.89	2.03	0.20	1.81	0.01	11.29	0.36	0.36	15.60		
5,6,7,8,10	42.90	34.46		42.46	0.83		14.14	0.56	3.11	56.83	5.44	1.08	4.33	0.04	49.93	4.27	4.27	43.73		
9,10,11,12	23.57	20.15		24.62	0.34		6.11	0.20	2.74	34.94	2.60	0.41	2.17	0.02	30.21	3.58	3.58	23.92		
10,12,13	26.46	22.49		25.17	1.61		13.74	0.80	4.05	35.55	2.45	1.40	1.03	0.02	78.83	1.99	1.99	28.07		

2020

Annual	Unassigned PM10	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	PM10 Mobile Exhaust	PM10 Area Mobile (sum)	PM10 windblown EIC3 650	PM10-other burning EIC3 690, 699
	Total w/o Wind	Road	Road	Road	Road	ROG * Total	On-Road	Other Mobile	On-Road	Exhaust	(sum)	EIC3 650	EIC3 690, 699
Fresno	64.4136	25.7983	36.3046	0.1844	11.0906	77.0406	68.4203	11.1964	8.6203	2.0927	0.9555	13.5039	1.3491
Kern	41.9036	42.1237	50.3254	0.2150	4.8392	68.8327	59.9989	5.6677	8.8338	2.4537	0.7588	5.1469	0.2666
Kings	15.7396	8.4689	10.7557	0.0415	0.8727	18.1678	16.3538	4.0706	1.8140	1.9394	1.6156	6.2505	0.0583
Madera	16.7672	7.2703	16.4613	0.0489	1.0471	20.7223	18.6359	3.6578	2.0864	0.6787	0.3347	1.7465	0.0550
Merced	22.1686	15.7076	11.7231	0.0864	0.9575	28.6170	25.1990	1.9271	3.4180	0.9834	0.2793	6.3861	0.1259
San Joaquin	32.2292	18.3041	44.5118	0.1416	6.1262	43.2086	36.5146	8.9067	6.6940	2.2976	1.3868	1.5151	0.2688
Stanislaus	24.5335	11.7153	19.4309	0.0907	2.1923	40.8187	35.7283	4.0478	5.0904	1.0064	0.4892	2.4845	0.2496
Tulare	32.6755	11.0324	15.0440	0.0839	0.9198	45.9518	41.2314	6.2410	4.7204	0.9621	0.5028	2.8644	0.1814
SJV Total	250.4308	140.4206	204.5568	0.8924	28.0454	343.3595	302.0822	45.7171	41.2773	12.4140	6.3227	39.8979	2.5547
Fresno + Madera	81.1808	33.0686	52.7659	0.2333	12.1377	97.7629	87.0562	14.8542	10.7067	2.7714	1.2902	15.2504	1.4041
Stanislaus + Merced	46.7021	27.4229	31.1540	0.1771	3.1498	69.4357	60.9273	5.9749	8.5084	1.9898	0.7685	8.8706	0.3755
Tulare + Kings	48.4151	19.5013	25.7997	0.1254	1.7925	64.1196	57.5852	10.3116	6.5344	2.9015	2.1184	9.1149	0.2397

Notes:

Zone EI Calculations

Calculation	Area	PM10 minus Windblown (episodic)	NOx Mobile	NOx not Mobile	SOx Mobile	SOx not Mobile	TOG * Total	TOG not Mobile On-Road	TOG Other Mobile	TOG Mobile On-Road	PM10 Mobile (plus area mobile)	Area Mobile (sum)	PM10 windblown	PM10-other burning (sum)
	Sum of H+J	A	B	C	D	E	Sum of E+F	E	L	F	J+K	K		
1	6.64	7.84	9.42	0.06	1.70	10.09	6.75	1.75	3.33	0.56	0.21			0.21
2a	14.18	13.44	9.95	0.08	0.84	24.87	21.90	1.59	2.97	0.84	0.23			0.12
2b	2.22	0.79	2.56	0.01	0.22	8.07	7.78	0.44	0.29	0.11	0.07			0.01
2c	10.77	3.48	8.53	0.03	0.34	29.86	28.27	1.89	1.59	0.38	0.23			0.04
3	9.98	16.06	11.58	0.11	4.57	30.00	25.51	4.15	4.49	1.02	0.35			1.11
4a	9.75	3.36	6.77	0.02	2.15	22.12	21.11	1.63	1.01	0.28	0.14			0.11
4b	5.25	4.62	8.91	0.03	0.79	6.98	5.68	0.75	1.30	0.29	0.07			0.03
5a	2.13	0.54	3.39	0.00	2.38	7.12	6.95	0.27	0.17	0.05	0.02			0.03
5b	0.80	0.15	0.41	0.00	0.01	2.17	2.08	0.08	0.09	0.01	0.01			0.00
5c	3.59	4.92	5.07	0.02	0.56	13.39	12.26	1.00	1.13	0.57	0.40			0.05
6a	0.98	0.04	0.58	0.00	0.02	2.26	2.24	0.11	0.02	0.01	0.01			0.00
6b	4.38	1.10	2.12	0.01	0.12	1.83	1.59	0.18	0.23	0.12	0.07			0.00
7	10.67	7.51	7.51	0.06	0.57	26.47	23.31	2.35	3.16	0.50	0.19			0.14
8	7.26	2.73	4.72	0.02	0.20	13.70	12.54	1.58	1.16	0.24	0.13			0.04
9	3.90	0.42	2.47	0.00	0.27	3.62	3.38	0.11	0.24	0.04	0.01			0.00
10	5.49	3.88	5.26	0.02	0.28	7.54	6.50	1.57	1.04	0.36	0.21			0.03
11	3.85	1.36	9.36	0.01	2.78	16.82	16.56	0.15	0.26	0.08	0.02			0.02
12	13.49	35.19	28.70	0.18	1.26	36.51	29.70	3.61	6.82	1.88	0.48			0.21
13	5.13	1.26	4.54	0.01	0.24	4.34	3.86	0.23	0.48	0.10	0.03			0.01
Sums														
1,2	33.81	25.56	30.46	0.17	3.10	72.89	64.71	5.66	8.19	1.89	0.74	0.00		0.38
3,4	24.89	24.04	27.25	0.16	7.51	59.10	52.30	6.53	6.80	1.59	0.56	0.00		1.26
5,6,7,8	29.80	16.99	23.80	0.11	3.85	66.94	60.97	5.56	5.96	1.50	0.82	0.00		0.26
5	6.52	5.61	8.87	0.03	2.95	22.68	21.29	1.34	1.39	0.63	0.43	0.00		0.09
6	2.93	0.68	3.80	0.00	2.39	9.29	9.03	0.34	0.26	0.06	0.03	0.00		0.04
6,8	12.61	3.87	7.42	0.03	0.34	17.78	16.37	1.87	1.41	0.37	0.21	0.00		0.04
5,6,7,8,10	35.29	20.87	29.06	0.13	4.14	74.47	67.47	7.13	7.00	1.86	1.03	0.00		0.29
9,10,11,12	20.49	8.40	21.81	0.05	3.53	41.68	38.98	3.41	2.70	0.72	0.37	0.00		0.08
10,12,13	24.11	40.34	38.49	0.20	1.79	48.39	40.06	5.41	8.33	2.34	0.72	0.00		0.25

2020 Annual	Geologic not mobile	Geologic not mobile not windblown	Reg VIII Geologic EIC3 620, 630, 640, 645, 650	PM10 Mobile On-Road	ROG Mobile Exhaust	Tire and Brake Wear	Organic Carbon	Organic Carbon not mobile	Sum of Burning	Burning - RWC EIC3 610	Burning - Ag Burn EIC3 670	Burning - fires EIC3 660	Ammonium Nitrate NOx Total	Sulfate SOx Total	Unassigned PM10 Total
Fresno	58.5627	45.0588	56.9964	1.1220	19.7426	0.7768	4.5951	56.9481	11.8807	2.2773	9.5231	0.0803	59.0121	11.0297	77.8328
Kern	35.3078	30.1609	34.0963	1.6723	14.4473	0.8341	6.0258	54.0694	2.9417	1.4718	1.4477	0.0222	87.8480	4.9442	46.9994
Kings	18.4015	12.1510	17.8120	0.3195	5.8626	0.1671	2.2976	12.2240	0.7587	0.2015	0.5487	0.0085	18.2678	0.8943	21.9662
Madera	13.5486	11.8001	13.1969	0.3394	5.7227	0.2063	1.3355	14.9059	2.7764	0.6320	2.1323	0.0121	22.5505	1.0722	18.4936
Merced	24.1347	17.7486	23.4918	0.8947	5.3251	0.3544	1.7045	23.1597	1.6010	0.4837	1.1010	0.0163	26.0655	1.0212	28.5237
San Joaquin	25.1852	23.6701	24.4734	0.8987	15.5444	0.6134	2.6605	27.4729	2.4578	1.4149	1.0341	0.0088	59.6896	6.1314	33.7076
Stanislaus	21.2553	18.7708	20.8017	0.5103	9.1040	0.3796	2.3803	31.5278	2.2607	1.2610	0.9741	0.0256	29.5961	2.2333	26.9886
Tulare	26.1456	23.2812	25.2275	0.4532	10.9204	0.3653	1.6200	34.8218	4.2297	0.8488	3.3430	0.0379	24.7786	0.9819	35.5013
SJV Total	222.5394	182.6415	215.8960	6.0101	86.6692	3.6970	22.6194	255.1296	28.9067	8.5910	20.1040	0.2117	327.8083	28.3082	290.0132
Fresno + Madera	72.1093	56.8589	70.1933	1.4615	25.4653	0.9831	5.9306	71.8540	14.6571	2.9093	11.6554	0.0924	81.5626	12.1018	96.3264
Stanislaus + Merced	45.3900	36.5194	44.0935	1.2050	14.4292	0.7340	4.0849	54.6876	3.8617	1.7447	2.0751	0.0419	55.6616	3.2545	55.5123
Tulare + Kings	44.5471	35.4322	43.0395	0.7727	16.7830	0.5324	3.9176	47.0458	4.9884	1.0503	3.8917	0.0464	43.0464	1.8762	57.4675

Notes: * PM10 on-road mobile * TOG footprint distribution not available. SOx assumed to be the most representative of mobile PM10. * Tire wear distribution not available. NOx Mobile assumed to be the most representative for tire and brake wear. * No longer includes cooking

Zone EI Calculations

Highlight = used in rollback cell

Area Calculation	PM10 not Mobile G	PM10 not mobile minus Windblown H	PM10 Geologic I	PM10 Mobile J	TOG Mobile Total =F+L	Tire and Brake Wear (using NOx distr)	PM10 Organic Carbon (Stationary sources)	TOG not mobile	Sum of Burning	PM10 RWC SIC 610	PM10 Ag burn SIC 670	PM10- fires SIC 660 (annual and 10/21/99)	NOx Total	SOx Total	PM10 Total (annual only)
1	7.09	6.30	5.45	0.34	5.08	0.25	0.99	5.85	0.97	0.81	0.15	0.01	17.26	1.76	7.43
2a	18.47	13.56	17.64	0.60	4.56	0.30	1.25	20.15	1.34	0.42	0.91	0.01	23.39	0.91	19.07
2b	2.35	2.18	2.32	0.04	0.73	0.03	0.26	6.20	0.20	0.08	0.12	0.00	3.36	0.23	2.38
2c	12.08	10.62	12.93	0.15	3.48	0.11	1.19	25.09	1.11	0.32	0.77	0.01	12.01	0.37	12.23
3	11.60	9.21	6.73	0.66	6.64	0.48	1.66	21.24	1.85	1.55	0.26	0.03	27.63	4.68	12.26
4a	12.78	9.62	12.49	0.14	2.65	0.10	0.67	17.97	2.86	0.49	2.36	0.01	10.13	2.17	12.92
4b	5.80	5.03	5.38	0.22	2.04	0.13	0.78	4.69	1.31	0.22	1.08	0.01	13.53	0.82	6.01
5a	2.80	2.11	2.82	0.02	0.44	0.02	0.13	5.97	0.54	0.07	0.47	0.00	3.93	2.38	2.82
5b	0.89	0.79	0.97	0.01	0.17	0.00	0.03	1.80	0.15	0.00	0.15	0.00	0.56	0.01	0.90
5c	5.44	3.42	4.96	0.17	2.13	0.10	0.23	9.63	0.29	0.14	0.14	0.00	9.99	0.58	5.61
6a	1.09	0.98	1.21	0.00	0.13	0.00	0.02	1.93	0.22	0.00	0.22	0.00	0.61	0.02	1.09
6b	6.34	4.33	6.42	0.04	0.42	0.02	1.06	1.24	0.23	0.02	0.22	0.00	3.22	0.13	6.39
7	11.61	10.35	10.37	0.31	5.51	0.25	0.93	19.90	1.90	0.50	1.38	0.02	15.03	0.63	11.92
8	8.00	7.15	8.21	0.11	2.73	0.09	0.32	10.65	1.57	0.18	1.38	0.01	7.45	0.22	8.11
9	4.55	3.87	5.46	0.02	0.35	0.01	0.37	3.14	0.30	0.01	0.29	0.00	2.89	0.28	4.58
10	6.72	5.34	7.48	0.15	2.61	0.08	0.37	5.43	0.53	0.16	0.37	0.00	9.14	0.30	6.87
11	4.29	3.79	3.47	0.06	0.41	0.03	1.65	15.55	0.19	0.06	0.13	0.00	10.72	2.78	4.35
12	13.91	12.09	11.24	1.38	10.42	0.70	2.70	26.41	1.63	1.20	0.42	0.01	63.89	1.44	15.29
13	5.82	5.07	6.45	0.06	0.71	0.03	0.94	3.54	0.28	0.04	0.25	0.00	5.80	0.25	5.89
Sums															
1,2	39.98	32.66	38.34	1.14	13.85	0.70	3.69	57.29	3.61	1.63	1.95	0.04	56.02	3.27	41.12
3,4	30.18	23.86	24.60	1.01	13.33	0.72	3.11	43.89	6.02	2.26	3.71	0.05	51.29	7.68	31.19
5,6,7,8	36.18	29.13	34.98	0.67	11.53	0.48	2.71	51.12	4.91	0.91	3.96	0.04	40.79	3.96	36.85
5	9.13	6.32	8.76	0.20	2.74	0.12	0.38	17.40	0.98	0.21	0.77	0.01	14.48	2.97	9.33
6	3.69	2.90	3.80	0.03	0.61	0.02	0.16	7.77	0.70	0.07	0.62	0.01	4.48	2.40	3.72
6,8	15.44	12.45	15.85	0.16	3.28	0.11	1.40	13.82	2.03	0.20	1.81	0.01	11.29	0.36	15.59
5,6,7,8,10	42.90	34.46	42.46	0.82	14.14	0.56	3.08	56.55	5.44	1.08	4.33	0.04	49.93	4.27	43.72
9,10,11,12	23.57	20.15	24.62	0.34	6.11	0.20	2.71	34.77	2.60	0.41	2.17	0.02	30.21	3.58	23.91
10,12,13	26.46	22.49	25.17	1.59	13.74	0.80	4.01	35.38	2.45	1.40	1.03	0.02	78.83	1.99	28.05

2020

Annual

	Unassigned PM10	NOx Mobile On-	NOx not Mobile On	SOx Mobile On-	SOx not Mobile On	ROG not Mobile		ROG Mobile On-	PM10 Mobile	PM10 Area Mobile	PM10 windblown	PM10-other	
	Total w/o Wind	Road	Road	Road	Road	ROG * Total	On-Road	ROG Other Mobile	Road Exhaust	(sum)	EIC3 650	burning EIC3 690, 699	
Fresno	64.3325	25.7983	36.3046	0.1844	11.0906	77.0406	68.4203	11.1964	8.6203	2.0927	0.9555	13.5039	1.3491
Kern	41.8508	42.1237	50.3254	0.2150	4.8392	68.8327	59.9989	5.6677	8.8338	2.4537	0.7588	5.1469	0.2666
Kings	15.7198	8.4689	10.7557	0.0415	0.8727	18.1678	16.3538	4.0706	1.8140	1.9394	1.6156	6.2505	0.0583
Madera	16.7461	7.2703	16.4613	0.0489	1.0471	20.7223	18.6359	3.6578	2.0864	0.6787	0.3347	1.7465	0.0550
Merced	22.1407	15.7076	11.7231	0.0864	0.9575	28.6170	25.1990	1.9271	3.4180	0.9834	0.2793	6.3861	0.1259
San Joaquin	32.1896	18.3041	44.5118	0.1416	6.1262	43.2086	36.5146	8.9067	6.6940	2.2976	1.3868	1.5151	0.2688
Stanislaus	24.5026	11.7153	19.4309	0.0907	2.1923	40.8187	35.7283	4.0478	5.0904	1.0064	0.4892	2.4845	0.2496
Tulare	32.6343	11.0324	15.0440	0.0839	0.9198	45.9518	41.2314	6.2410	4.7204	0.9621	0.5028	2.8644	0.1814
SJV Total	250.1153	140.4206	204.5568	0.8924	28.0454	343.3595	302.0822	45.7171	41.2773	12.4140	6.3227	39.8979	2.5547
Fresno + Madera	81.0785	33.0686	52.7659	0.2333	12.1377	97.7629	87.0562	14.8542	10.7067	2.7714	1.2902	15.2504	1.4041
Stanislaus + Merced	46.6433	27.4229	31.1540	0.1771	3.1498	69.4357	60.9273	5.9749	8.5084	1.9898	0.7685	8.8706	0.3755
Tulare + Kings	48.3541	19.5013	25.7997	0.1254	1.7925	64.1196	57.5852	10.3116	6.5344	2.9015	2.1184	9.1149	0.2397

Notes:

Zone EI Calculations

Area Calculation	PM10 minus Windblown (episodes)	NOx Mobile	NOx not Mobile	SOx Mobile	SOx not Mobile	TOG * Total	TOG not Mobile	TOG Other Mobile	TOG Mobile On-Road	PM10 Mobile (plus area mobile)	Area Mobile (sum)	PM10 windblown	PM10-other burning (sum)
	Sum of H+J	A	B	C	D	Sum of E+F	E	L	F	J+K	K		
1	6.64	7.84	9.42	0.06	1.70	10.09	6.75	1.75	3.33	0.55	0.21		0.21
2a	14.17	13.44	9.95	0.08	0.84	24.87	21.90	1.59	2.97	0.83	0.23		0.12
2b	2.22	0.79	2.56	0.01	0.22	8.07	7.78	0.44	0.29	0.11	0.07		0.01
2c	10.77	3.48	8.53	0.03	0.34	23.86	28.27	1.89	1.59	0.38	0.23		0.04
3	9.87	16.06	11.58	0.11	4.57	30.00	25.51	4.15	4.49	1.01	0.35		1.11
4a	9.75	3.36	6.77	0.02	2.15	22.12	21.11	1.63	1.01	0.28	0.14		0.11
4b	5.25	4.62	8.91	0.03	0.79	6.98	5.68	0.75	1.30	0.29	0.07		0.03
5a	2.13	0.54	3.39	0.00	2.38	7.12	6.95	0.27	0.17	0.05	0.02		0.03
5b	0.80	0.15	0.41	0.00	0.01	2.17	2.08	0.08	0.09	0.01	0.01		0.00
5c	3.59	4.92	5.07	0.02	0.56	13.39	12.26	1.00	1.13	0.57	0.40		0.05
6a	0.98	0.04	0.58	0.00	0.02	2.26	2.24	0.11	0.02	0.01	0.01		0.00
6b	4.37	1.10	2.12	0.01	0.12	1.83	1.59	0.18	0.23	0.12	0.07		0.00
7	10.66	7.51	7.51	0.06	0.57	26.47	23.31	2.35	3.16	0.50	0.19		0.14
8	7.26	2.73	4.72	0.02	0.20	13.70	12.54	1.58	1.16	0.24	0.13		0.04
9	3.90	0.42	2.47	0.00	0.27	3.62	3.38	0.11	0.24	0.04	0.01		0.00
10	5.48	3.88	5.25	0.02	0.28	7.54	6.50	1.57	1.04	0.36	0.21		0.03
11	3.85	1.36	9.36	0.01	2.78	16.82	16.56	0.15	0.26	0.08	0.02		0.02
12	13.47	35.19	28.70	0.18	1.26	36.51	29.70	3.61	6.82	1.86	0.48		0.21
13	5.13	1.26	4.54	0.01	0.24	4.34	3.86	0.23	0.48	0.09	0.03		0.01
Sums													
1,2	33.80	25.56	30.46	0.17	3.10	72.89	64.71	5.66	8.19	1.88	0.74	0.00	0.38
3,4	24.87	24.04	27.25	0.16	7.51	59.10	52.30	6.53	6.80	1.57	0.56	0.00	1.26
5,6,7,8	29.80	16.99	23.80	0.11	3.85	66.94	60.97	5.56	5.96	1.49	0.82	0.00	0.26
5	6.52	5.61	8.87	0.03	2.95	22.68	21.29	1.34	1.39	0.63	0.43	0.00	0.09
6	2.93	0.68	3.80	0.00	2.39	9.29	9.03	0.34	0.26	0.06	0.03	0.00	0.04
6,8	12.61	3.87	7.42	0.03	0.34	17.78	16.37	1.87	1.41	0.37	0.21	0.00	0.04
5,6,7,8,10	35.28	20.87	29.06	0.13	4.14	74.47	67.47	7.13	7.00	1.85	1.03	0.00	0.29
9,10,11,12	20.49	8.40	21.81	0.05	3.53	41.68	38.98	3.41	2.70	0.71	0.37	0.00	0.08
10,12,13	24.08	40.34	38.49	0.20	1.79	48.39	40.06	5.41	8.33	2.31	0.72	0.00	0.25

Adjustments to 2020 Annual Baseline EI						Geologic not mobile	Geologic not mobile not windblown	Reg VIII Geologic EIC3 620, 630, 640, 645, 650	PM10 Mobile On-Road	ROG Mobile Exhaust	Tire and Brake Wear	Organic Carbon
		ROG	NOx	SOx	PM10							
HHDD Trucks	Trucks	0.00	0.00	0.00	0.00				0.00	0.00		
Reflash	Trucks	0.00	-1.73	0.00	0.00				0.00	0.00		
Public Fleet	On-Road	0.00	-0.02	0.00	-0.01				-0.01	0.00		
Idling	On-Road	0.00	-13.99	0.00	0.00				0.00	0.00		
AB 1493	Mobile	-0.02	-0.02	0.00	-0.07				-0.07	-0.02		
Moyer	Off-Road Equipment	0.00	0.00	0.00	0.00							0.00
Off-road	Off-Road	-0.30	-1.35	0.00	-0.16					-0.30		-0.16
Ships	Off-Road	0.00	-0.06	-0.63	-0.07					0.00		-0.07
Consumer Products	Evap	-1.24	0.00	0.00	0.00							
Pesticides/Fertilizers Corr.	Evap	0.00	0.00	0.00	0.00							
Composting Green Waste	Evap	0.00	0.00	0.00	0.00							
Composting Biosolids	Evap	0.00	0.00	0.00	0.00							
Rule 4103	Open Burning	0.00	0.00	0.00	0.00							
Rules 4307 & 4308	Combustion	0.00	0.00	0.00	0.00							0.00
Rule 4309	Combustion	0.00	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
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	Combustion	0.00	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 District Rules	0.00	0.00	0.00	0.00							0.00
All Adjustments		-1.56	-17.17	-0.63	-0.32	0.00	0.00	0.00	-0.08	-0.33	0.00	-0.23

Adjustments to 2020 Annual Baseline EI						Organic Carbon not mobile	Sum of Burning	Burning - RWC EIC3 610	Burning - Ag Burn EIC3 670	Burning - fires EIC3 660	Ammonium Nitrate NOx Total	Sulfate SOx Total
		ROG	NOx	SOx	PM10							
HHDD Trucks	Trucks	0.00	0.00	0.00	0.00						0.00	0.00
Reflash	Trucks	0.00	-1.73	0.00	0.00						-1.73	0.00
Public Fleet	On-Road	0.00	-0.02	0.00	-0.01						-0.02	0.00
Idling	On-Road	0.00	-13.99	0.00	0.00						-13.99	0.00
AB 1493	Mobile	-0.02	-0.02	0.00	-0.07						-0.02	0.00
Moyer	Off-Road Equipment	0.00	0.00	0.00	0.00						0.00	0.00
Off-road	Off-Road	-0.30	-1.35	0.00	-0.16						-1.35	0.00
Ships	Off-Road	0.00	-0.06	-0.63	-0.07						-0.06	-0.63
Consumer Products	Evap	-1.24	0.00	0.00	0.00	-1.24					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	0.00	0.00	0.00	0.00	0.00					0.00	0.00
Composting Biosolids	Evap	0.00	0.00	0.00	0.00	0.00					0.00	0.00
Rule 4103	Open Burning	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00	0.00
Rules 4307 & 4308	Combustion	0.00	0.00	0.00	0.00	0.00					0.00	0.00
Rule 4309	Combustion	0.00	0.00	0.00	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	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	Combustion	0.00	0.00	0.00	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	0.00
Rules 4307, 4308, 4309, 9510	Other District Rules	0.00	0.00	0.00	0.00	0.00					0.00	0.00
All Adjustments		-1.56	-17.17	-0.63	-0.32	-1.24	0.00	0.00	0.00	0.00	-17.17	-0.63

Adjustments to 2020 Annual Baseline EI						Unassigned PM10 Total	Unassigned PM10 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	NOx	SOx	PM10							
HHDD Trucks	Trucks	0.00	0.00	0.00	0.00	0.00	0.00					
Reflash	Trucks	0.00	-1.73	0.00	0.00	0.00	0.00					
Public Fleet	On-Road	0.00	-0.02	0.00	-0.01	-0.01	-0.01					
Idling	On-Road	0.00	-13.99	0.00	0.00	0.00	0.00					
AB 1493	Mobile	-0.02	-0.02	0.00	-0.07	-0.07	-0.07					
Moyer	Off-Road Equipment	0.00	0.00	0.00	0.00	0.00	0.00					
Off-road	Off-Road	-0.30	-1.35	0.00	-0.16	-0.16	-0.16					
Ships	Off-Road	0.00	-0.06	-0.63	-0.07	-0.07	-0.07					
Consumer Products	Evap	-1.24	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	0.00	0.00	0.00	0.00	0.00	0.00					
Composting Biosolids	Evap	0.00	0.00	0.00	0.00	0.00	0.00					
Rule 4103	Open Burning	0.00	0.00	0.00	0.00	0.00	0.00					
Rules 4307 & 4308	Combustion	0.00	0.00	0.00	0.00	0.00	0.00					
Rule 4309	Combustion	0.00	0.00	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	Combustion	0.00	0.00	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 District Rules	0.00	0.00	0.00	0.00	0.00	0.00					
All Adjustments		-1.56	-17.17	-0.63	-0.32	-0.32	-0.32	0.00	0.00	0.00	0.00	0.00

Adjustments to 2020 Annual Baseline EI						ROG not Mobile On-Road	ROG Other Mobile	ROG Mobile On- Road	PM10 Mobile Exhaust	PM10 Area Mobile (sum)	PM10 windblown EIC3 650	PM10-other burning EIC3 690, 699
		ROG	NOx	SOx	PM10							
HHDD Trucks	Trucks	0.00	0.00	0.00	0.00							
Reflash	Trucks	0.00	-1.73	0.00	0.00							
Public Fleet	On-Road	0.00	-0.02	0.00	-0.01							
Idling	On-Road	0.00	-13.99	0.00	0.00							
AB 1493	Mobile	-0.02	-0.02	0.00	-0.07							
Moyer	Off-Road Equipment	0.00	0.00	0.00	0.00							
Off-road	Off-Road	-0.30	-1.35	0.00	-0.16							
Ships	Off-Road	0.00	-0.06	-0.63	-0.07							
Consumer Products	Evap	-1.24	0.00	0.00	0.00							
Pesticides/Fertilizers Corr.	Evap	0.00	0.00	0.00	0.00							
Composting Green Waste	Evap	0.00	0.00	0.00	0.00							
Composting Biosolids	Evap	0.00	0.00	0.00	0.00							
Rule 4103	Open Burning	0.00	0.00	0.00	0.00							
Rules 4307 & 4308	Combustion	0.00	0.00	0.00	0.00							
Rule 4309	Combustion	0.00	0.00	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	Combustion	0.00	0.00	0.00	0.00							
Rule 9310	On-Road (School Bus)	0.00	0.00	0.00	0.00							
Rules 4307, 4308, 4309, 9510	Other District Rules	0.00	0.00	0.00	0.00							
All Adjustments		-1.56	-17.17	-0.63	-0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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

SITEID	CONC	UONC	PCMASS	Design Value	Sum of species	Burning		Motor Vehicle		Tire/Brake		Sulfate		Nitrate		Geological		Geological Profile	Unassigned
								Mass		Mass		Mass		Mass		Mass			
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	DFDSDANN	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.

San Joaquin Valley Air Pollution Control District

Bakersfield Golden State Monthly							Burning		Motor Vehicle		Tire/Brake		Sulfate		Nitrate		Geological	
SITEID	DATE	CONC	UONC	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	UONC	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

San Joaquin Valley Air Pollution Control District

Hanford Monthly

SITEID	DATE	CONC	UONC	PCMAS	RSQ	CHISQ	Burning		Motor Vehicle		Tire/Brake		Sulfate		Nitrate		Geological	
							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

SITEID	DATE	CONC	UONC	PCMAS	RSQ	CHISQ	Burning		Motor Vehicle		Tire/Brake		Sulfate		Nitrate		Geological	
							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

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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

	<u>Jan-May and Nov-</u> <u>Dec</u>	<u>June-Oct</u>
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
Geological	92 FDHANANN	92 FDHANANN
	93 FDFREANN	93 FDFREANN
	94 FDVCSANN	94 FDVCSANN
	95 FDKERANN	95 FDKERANN

Note: (not used if run came out negative)

San Joaquin Valley Air Pollution Control District

Annual	County	Value	Site	EPA Value			
	Fresno	50	Fresno-Drummond	47-53			
	Kings	53	Hanford, Irwin St	51			
	Tulare	53	Visalia, Church Street	54			
	Kern	57	Bakersfield-Golden	55			
			Areas used				
Annual	County	Value	Local	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	

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