

## **Appendix C: Air Quality Supporting Data**



Title : Elk Grove SIOA Amendment  
 Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
 Run Date : 2011/07/21 14:19:13  
 Scen Year: 2020 -- All model years in the range 1976 to 2020 selected  
 Season : Annual  
 Area : Sacramento County  
 I/M Stat : Enhanced Interim (2005)  
 Emissions: Tons Per Day

	LDA-TOT	LD1-TOT	LD2-TOT	MDV-TOT	LHDT1-TOT	LHDT2-TOT	MHDT-TOT	HHDT-TOT	OBUS-TOT	SBUS-TOT	UB-TOT	MH-TOT	MCY-TOT	ALL-TOT
Vehicles	581085	121893	260323	116469	23930	9793	18116	4971	1301	967	420	9626	40403	1189300
VMT/1000	673	144	303	144	32	13	31	30	2	1	2	4	11	1389
Trips	94396	19665	41891	18728	17792	6146	15005	957	1143	101	44	25	2108	218000
Reactive Organic Gas Emissions														
Run Exh	0.03	0.01	0.02	0.12	0.48	0.13	0.42	1.16	0.04	0.09	0.08	0.04	0.06	2.67
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0.2	0.04	0.13	0.09	0.45	0.13	0.21	0.14	0.03	0	0.01	0	0.01	1.45
Total Ex	0.23	0.05	0.15	0.21	0.93	0.26	0.63	1.31	0.07	0.09	0.08	0.04	0.07	4.12
Diurnal	0.17	0.04	0.12	0.06	0	0	0	0	0	0	0	0	0.09	0.48
Hot Soak	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0	0.02
Running	0.06	0.02	0.04	0.03	0.06	0.01	0.04	0.02	0	0	0	0	0	0.29
Resting	0.14	0.03	0.1	0.05	0	0	0	0	0	0	0	0	0.04	0.36
Total	0.61	0.15	0.43	0.35	0.99	0.27	0.67	1.33	0.07	0.09	0.08	0.04	0.2	5.28
Carbon Monoxide Emissions														
Run Exh	17.82	4.55	13.35	9.5	3.41	1.04	4.93	6.38	0.49	0.42	0.66	0.39	0.53	63.47
Idle Exh	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0.02
Start Ex	3.91	0.99	2.89	1.88	2.01	0.41	3.12	1.96	0.59	0.01	0.06	0	0.1	17.94
Total Ex	21.74	5.53	16.24	11.38	5.43	1.45	8.05	8.35	1.09	0.43	0.72	0.4	0.63	81.44
Oxides of Nitrogen Emissions														
Run Exh	0.07	0.02	0.07	0.04	0.78	0.32	1.86	7.59	0.17	0.18	0.23	0.13	0.05	11.52
Idle Exh	0	0	0	0	0	0	0	0.03	0	0	0	0	0	0.03
Start Ex	0.03	0.01	0.03	0.04	1.58	0.42	0.51	0.18	0.1	0	0.01	0	0	2.9
Total Ex	0.1	0.03	0.1	0.08	2.36	0.75	2.37	7.8	0.26	0.19	0.24	0.13	0.05	14.45
Carbon Dioxide Emissions (000)														
Run Exh	0.26	0.07	0.15	0.1	0.03	0.01	0.05	0.06	0	0	0	0	0	0.74
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0.02
Total Ex	0.27	0.07	0.16	0.1	0.03	0.01	0.05	0.06	0	0	0	0	0	0.76
PM10 Emissions														
Run Exh	0.02	0	0.02	0.01	0.02	0.01	0.33	0.42	0.02	0.04	0	0	0	0.9
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Ex	0.02	0.01	0.02	0.01	0.02	0.01	0.33	0.42	0.02	0.04	0	0	0	0.9
TireWear	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0.01
BrakeWr	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0.02
Total	0.04	0.01	0.03	0.01	0.02	0.02	0.33	0.42	0.02	0.04	0	0	0	0.94
Lead	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOx	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01
Fuel Consumption (000 gallons)														
Gasoline	31.33	8.23	18.56	12.16	3.85	1.04	1.26	0.77	0.2	0.04	0.21	0.35	0.33	78.34
Diesel	0.01	0.08	0.01	0.01	0.36	0.29	3.81	5.44	0.25	0.17	0.22	0.06	0	10.72

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 Run Date : 2011/07/21 14:19:13  
 Scen Year: 2025 -- All model years in the range 1981 to 2025 selected  
 Season : Annual  
 Area : Sacramento County  
 I/M Stat : Enhanced Interim (2005)  
 Emissions: Tons Per Day

	LDA-TOT	LD1-TOT	LD2-TOT	MDV-TOT	LHDT1-TOT	LHDT2-TOT	MHDT-TOT	HHDT-TOT	OBUS-TOT	SBUS-TOT	UB-TOT	MH-TOT	MCY-TOT	ALL-TOT
Vehicles	620122	130257	278297	123973	25409	10419	19321	5051	1387	1008	438	10167	42896	1268740
VMT/1000	673	144	304	144	32	13	31	29	2	1	2	4	11	1389
Trips	94482	19666	41854	18625	17922	6181	15047	829	1120	99	43	25	2106	218000
Reactive Organic Gas Emissions														
Run Exh	0.01	0	0.01	0.01	0.27	0.08	0.32	0.7	0.03	0.08	0.06	0.02	0.06	1.66
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0.14	0.03	0.1	0.07	0.33	0.08	0.14	0.07	0.02	0	0.01	0	0.01	1
Total Ex	0.15	0.03	0.11	0.07	0.61	0.16	0.47	0.77	0.05	0.08	0.07	0.02	0.07	2.66
Diurnal	0.13	0.03	0.13	0.06	0	0	0	0	0	0	0	0	0.09	0.44
Hot Soak	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0	0.02
Running	0.04	0.01	0.03	0.01	0.03	0	0.01	0.01	0	0	0	0	0	0.14
Resting	0.11	0.03	0.11	0.05	0	0	0	0	0	0	0	0	0.04	0.34
Total	0.43	0.11	0.38	0.2	0.64	0.16	0.48	0.78	0.05	0.08	0.07	0.02	0.21	3.61
Carbon Monoxide Emissions														
Run Exh	12.11	3.34	10.44	7.98	2.49	0.75	4.03	3.89	0.35	0.43	0.62	0.24	0.54	47.19
Idle Exh	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0.02
Start Ex	2.63	0.7	2.19	1.43	1.47	0.22	1.95	0.89	0.38	0.01	0.05	0	0.12	12.04
Total Ex	14.74	4.04	12.63	9.41	3.97	0.97	5.97	4.79	0.73	0.44	0.67	0.24	0.65	59.24
Oxides of Nitrogen Emissions														
Run Exh	0.06	0.02	0.05	0.03	0.6	0.24	1.46	6.33	0.12	0.18	0.22	0.08	0.05	9.44
Idle Exh	0	0	0	0	0	0	0	0.03	0	0	0	0	0	0.03
Start Ex	0.02	0	0.02	0.03	1.32	0.31	0.34	0.11	0.07	0	0.01	0	0	2.24
Total Ex	0.08	0.02	0.08	0.06	1.92	0.55	1.8	6.47	0.18	0.18	0.23	0.08	0.05	11.71
Carbon Dioxide Emissions (000)														
Run Exh	0.26	0.07	0.15	0.1	0.03	0.01	0.05	0.06	0	0	0	0	0	0.74
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0.02
Total Ex	0.27	0.07	0.16	0.1	0.03	0.01	0.05	0.06	0	0	0	0	0	0.76
PM10 Emissions														
Run Exh	0.02	0	0.02	0.01	0.02	0.01	0.32	0.27	0.02	0.04	0	0	0	0.73
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Ex	0.02	0.01	0.02	0.01	0.02	0.01	0.32	0.27	0.02	0.04	0	0	0	0.74
TireWear	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0.01
BrakeWr	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0.02
Total	0.04	0.01	0.03	0.01	0.02	0.01	0.32	0.27	0.02	0.04	0	0	0	0.77
Lead	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOx	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01
Fuel Consumption (000 gallons)														
Gasoline	30.13	8.06	18.09	11.85	3.57	0.96	0.91	0.39	0.13	0.04	0.2	0.32	0.34	74.96
Diesel	0	0.04	0	0	0.34	0.29	3.81	5.26	0.26	0.17	0.22	0.06	0	10.47

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 Area : Sacramento County  
 I/M Stat : Enhanced Interim (2005)  
 Emissions: Tons Per Day

	LDA-TOT	LD1-TOT	LD2-TOT	MDV-TOT	LHDT1-TOT	LHDT2-TOT	MHDT-TOT	HHDT-TOT	OBUS-TOT	SBUS-TOT	UB-TOT	MH-TOT	MCY-TOT	ALL-TOT
Vehicles	669059	141234	302087	132981	27275	11191	20795	4915	1495	1017	442	10656	45659	1368810
VMT/1000	677	144	305	143	32	13	31	26	2	1	2	4	11	1389
Trips	94643	19646	41914	18321	18120	6230	15095	681	1102	93	40	24	2090	218000
Reactive Organic Gas Emissions														
Run Exh	0.01	0	0.01	0.01	0.09	0.04	0.27	0.43	0.02	0.04	0.05	0	0.06	1.03
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0.06	0.01	0.06	0.04	0.2	0.04	0.08	0.03	0.01	0	0.01	0	0.01	0.56
Total Ex	0.07	0.02	0.07	0.05	0.29	0.08	0.36	0.46	0.03	0.04	0.06	0	0.08	1.59
Diurnal	0.08	0.03	0.13	0.07	0	0	0	0	0	0	0	0	0.1	0.41
Hot Soak	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0	0.02
Running	0.02	0.01	0.02	0.01	0.01	0	0	0	0	0	0	0	0	0.07
Resting	0.08	0.03	0.12	0.06	0	0	0	0	0	0	0	0	0.05	0.34
Total	0.26	0.08	0.36	0.19	0.3	0.08	0.36	0.46	0.03	0.04	0.06	0	0.22	2.43
Carbon Monoxide Emissions														
Run Exh	6.66	2.02	7.24	5.94	1.25	0.53	3.55	2.46	0.27	0.35	0.7	0.05	0.55	31.57
Idle Exh	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0.02
Start Ex	1.32	0.39	1.38	0.95	0.56	0.04	0.81	0.31	0.16	0.01	0.06	0	0.13	6.11
Total Ex	7.99	2.41	8.62	6.89	1.81	0.58	4.35	2.78	0.43	0.35	0.76	0.05	0.68	37.7
Oxides of Nitrogen Emissions														
Run Exh	0.05	0.01	0.04	0.02	0.39	0.16	1.24	5.21	0.09	0.14	0.25	0.03	0.05	7.69
Idle Exh	0	0	0	0	0	0	0	0.03	0	0	0	0	0	0.03
Start Ex	0.01	0	0.01	0.01	0.97	0.18	0.18	0.05	0.03	0	0.02	0	0	1.45
Total Ex	0.05	0.01	0.05	0.03	1.35	0.34	1.42	5.29	0.12	0.14	0.27	0.03	0.06	9.17
Carbon Dioxide Emissions (000)														
Run Exh	0.26	0.07	0.15	0.1	0.03	0.01	0.05	0.05	0	0	0	0	0	0.74
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0.02
Total Ex	0.27	0.07	0.16	0.1	0.03	0.01	0.05	0.05	0	0	0	0	0	0.76
PM10 Emissions														
Run Exh	0.02	0	0.02	0.01	0.02	0.01	0.31	0.17	0.02	0.03	0	0	0	0.63
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Ex	0.02	0.01	0.02	0.01	0.02	0.01	0.31	0.17	0.02	0.03	0	0	0	0.64
TireWear	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0.01
BrakeWr	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0.02
Total	0.04	0.01	0.03	0.01	0.02	0.01	0.31	0.18	0.02	0.03	0	0	0	0.67
Lead	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOx	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01
Fuel Consumption (000 gallons)														
Gasoline	29.04	7.8	17.51	11.34	3.18	0.88	0.63	0.18	0.07	0.02	0.21	0.28	0.34	71.47
Diesel	0	0.01	0	0	0.32	0.28	3.78	4.74	0.27	0.17	0.18	0.06	0	9.81

