Strategic Area Project Health Effects Tool

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Strategic Area Location	IV. South Sacramento	<-- Step 1: Input the area (Please chose a value between 38.0 and 39.7)
NOx Emissions	413	<-- Step 2: Input NOx emissions in lbs./day
ROG Emissions	186	<-- Step 3: Input ROG emissions in lbs./day
PM25 Emissions	147	<-- Step 4: Input PM2.5 emissions in lbs./day

PM2.5 Health Endpoint	Age Range[1]	Incidences Across the Reduced Sacramento 4-km Modeling Domain Resulting from Project Emissions (per year)[2,5] (Mean)	Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year)[2] (Mean)	Percent of Background Health Incidences Across the 5-Air-District Region[3]	Total Number of Health Incidences Across the 5-Air-District Region (per year)[4]
Respiratory					
Emergency Room Visits, Asthma	0 - 99	3.7	3.5	0.019%	18419
Hospital Admissions, Asthma	0 - 64	0.24	0.23	0.012%	1846
Hospital Admissions, All Respiratory	65 - 99	1.1	1.0	0.0053%	19644
Cardiovascular					
Hospital Admissions, All Cardiovascular (less Myocardial Infarctions)	65 - 99	0.64	0.60	0.0025%	24037
Acute Myocardial Infarction, Nonfatal	18 - 24	0.00033	0.00031	0.0082%	4
Acute Myocardial Infarction, Nonfatal	25 - 44	0.027	0.025	0.0082%	308
Acute Myocardial Infarction, Nonfatal	45 - 54	0.066	0.063	0.0085%	741
Acute Myocardial Infarction, Nonfatal	55 - 64	0.11	0.10	0.0084%	1239
Acute Myocardial Infarction, Nonfatal	65 - 99	0.41	0.39	0.0077%	5052
Mortality					
Mortality, All Cause	30 - 99	7.4	6.9	0.015%	44766

Ozone Health Endpoint	Age Range[1]	Incidences Across the Reduced Sacramento 4-km Modeling Domain Resulting from Project Emissions (per year)[2,5] (Mean)	Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year)[2] (Mean)	Percent of Background Health Incidences Across the 5-Air-District Region[3]	Total Number of Health Incidences Across the 5-Air-District Region (per year)[4]
Respiratory					
Hospital Admissions, All Respiratory	65 - 99	0.37	0.30	0.0015%	19644
Emergency Room Visits, Asthma	0 - 17	2.8	2.4	0.042%	5859
Emergency Room Visits, Asthma	18 - 99	2.3	2.0	0.016%	12560
Mortality					
Mortality, Non-Accidental	0 - 99	0.23	0.20	0.00065%	30386

1. Affected age ranges are shown. Other age ranges are available, but the endpoints and age ranges shown here are the ones used by the USEPA in their health assessments. The age ranges are consistent with the epidemiological study that is the basis of the health function.
2. Health effects are shown in terms of incidences of each health endpoint and how it compares to the base (2035 base year health effect incidences, or "background health incidence") values. Health effects are shown for the Reduced Sacramento 4-km Modeling Domain and the 5-Air-District Region.
3. The percent of background health incidence uses the mean incidence. The background health incidence is an estimate of the average number of people that are affected by the health endpoint in a given population over a given period of time. In this case, the background incidence rates cover the 5-Air-District Region (estimated 2035 population of 3,271,451 persons). Health incidence rates and other health data are typically collected by the government as well as the World Health Organization. The background incidence rates used here are obtained from BenMAP.
4. The total number of health incidences across the 5-Air-District Region is calculated based on the modeling data. The information is presented to assist in providing overall health context.
5. The technical specifications and map for the Reduced Sacramento 4-km Modeling Domain are included in Appendix A, Table A-1 and Appendix B, Figure B-2 of the *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District.*
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