

San Joaquin Valley Air Basin, Summer ROG Emissions (tons/day)

Source: CEPAM 2016 Ozone SIP V. 1.03 with external adjustments

	2012	2031
STATIONARY SOURCES		
ELECTRIC UTILITIES	0.22	0.21
COGENERATION	0.49	0.63
OIL AND GAS PRODUCTION (COMBUSTION)	1.18	0.77
PETROLEUM REFINING (COMBUSTION)	0.10	0.10
MANUFACTURING AND INDUSTRIAL	0.18	0.19
FOOD AND AGRICULTURAL PROCESSING	1.31	0.52
SERVICE AND COMMERCIAL	0.54	0.61
OTHER (FUEL COMBUSTION)	0.05	0.03
SEWAGE TREATMENT	0.03	0.04
LANDFILLS	1.52	2.01
INCINERATORS	0.01	0.01
SOIL REMEDIATION	0.11	0.14
OTHER (WASTE DISPOSAL)	21.36	28.02
LAUNDERING	0.09	0.12
DEGREASING	1.53	1.75
COATINGS AND RELATED PROCESS SOLVENTS	7.85	10.79
PRINTING	4.85	6.56
ADHESIVES AND SEALANTS	0.56	0.47
OTHER (CLEANING AND SURFACE COATINGS)	6.17	8.72
OIL AND GAS PRODUCTION	13.07	8.56
PETROLEUM REFINING	0.79	0.79
PETROLEUM MARKETING	6.09	5.71
OTHER (PETROLEUM PRODUCTION AND MARKETING)	0.02	0.02
CHEMICAL	4.80	6.99
FOOD AND AGRICULTURE	11.18	14.61
MINERAL PROCESSES	0.25	0.38
METAL PROCESSES	0.16	0.17
WOOD AND PAPER	0.01	0.01
GLASS AND RELATED PRODUCTS	0.02	0.02
ELECTRONICS	0.00	0.00
OTHER (INDUSTRIAL PROCESSES)	0.78	1.09
TOTAL STATIONARY SOURCES	85.30	100.05
AREAWIDE SOURCES		
CONSUMER PRODUCTS	21.48	25.92
ARCHITECTURAL COATINGS AND RELATED SOLVENTS	10.23	13.19
PESTICIDES/FERTILIZERS	15.84	13.97
ASPHALT PAVING / ROOFING	0.85	0.90
RESIDENTIAL FUEL COMBUSTION	0.50	0.50
FARMING OPERATIONS	95.92	95.92
CONSTRUCTION AND DEMOLITION	0.00	0.00
PAVED ROAD DUST	0.00	0.00
UNPAVED ROAD DUST	0.00	0.00
FUGITIVE WINDBLOWN DUST	0.00	0.00

San Joaquin Valley Air Basin, Summer ROG Emissions (tons/day)

Source: CEPAM 2016 Ozone SIP V. 1.03 with external adjustments

	2012	2031
AREAWIDE SOURCES (continued)		
FIRES	0.09	0.12
MANAGED BURNING AND DISPOSAL	1.49	1.45
COOKING	0.56	0.73
OTHER (MISCELLANEOUS PROCESSES)	0	0
TOTAL AREAWIDE SOURCES	146.97	152.70
ON-ROAD MOTOR VEHICLES		
LIGHT DUTY PASSENGER (LDA)	17.76	5.05
LIGHT DUTY TRUCKS - 1 (LDT1)	6.33	0.95
LIGHT DUTY TRUCKS - 2 (LDT2)	8.80	3.10
MEDIUM DUTY TRUCKS (MDV)	8.75	3.32
LIGHT HEAVY DUTY GAS TRUCKS - 1 (LHDV1)	2.42	0.58
LIGHT HEAVY DUTY GAS TRUCKS - 2 (LHDV2)	0.29	0.04
MEDIUM HEAVY DUTY GAS TRUCKS (MHDV)	0.81	0.07
HEAVY HEAVY DUTY GAS TRUCKS (HHDV)	0.15	0.01
LIGHT HEAVY DUTY DIESEL TRUCKS - 1 (LHDV1)	0.49	0.16
LIGHT HEAVY DUTY DIESEL TRUCKS - 2 (LHDV2)	0.13	0.05
MEDIUM HEAVY DUTY DIESEL TRUCKS (MHDV)	1.50	0.13
HEAVY HEAVY DUTY DIESEL TRUCKS (HHDV)	8.53	1.35
MOTORCYCLES (MCY)	3.82	3.38
HEAVY DUTY DIESEL URBAN BUSES (UB)	0.23	0.03
HEAVY DUTY GAS URBAN BUSES (UB)	0.10	0.02
SCHOOL BUSES - GAS (SBG)	0.08	0.01
SCHOOL BUSES - DIESEL (SBD)	0.07	0.01
OTHER BUSES - GAS (OBG)	0.07	0.02
OTHER BUSES - MOTOR COACH - DIESEL (OBC)	0.03	0.01
ALL OTHER BUSES - DIESEL (OBD)	0.05	0.00
MOTOR HOMES (MH)	0.08	0.01
TOTAL ON-ROAD MOTOR VEHICLES	60.48	18.29
OTHER MOBILE SOURCES		
AIRCRAFT	3.00	3.92
TRAINS	0.76	0.43
OCEAN GOING VESSELS	0.02	0.04
COMMERCIAL HARBOR CRAFT	0.05	0.04
RECREATIONAL BOATS	11.54	4.17
OFF-ROAD RECREATIONAL VEHICLES	3.47	2.29
OFF-ROAD EQUIPMENT	11.54	8.87
FARM EQUIPMENT	11.36	4.62
FUEL STORAGE AND HANDLING	2.80	1.29
TOTAL OTHER MOBILE SOURCES	44.55	25.67
AIR BASIN TOTAL	337.29	296.70

San Joaquin Valley Air Basin, Summer NOx Emissions (tons/day)

Source: CEPAM 2016 Ozone SIP V. 1.03 with external adjustments

	2012	2031
STATIONARY SOURCES		
ELECTRIC UTILITIES	4.48	4.96
COGENERATION	1.68	2.40
OIL AND GAS PRODUCTION (COMBUSTION)	3.22	1.67
PETROLEUM REFINING (COMBUSTION)	0.19	0.14
MANUFACTURING AND INDUSTRIAL	5.20	5.41
FOOD AND AGRICULTURAL PROCESSING	15.49	3.86
SERVICE AND COMMERCIAL	4.22	4.49
OTHER (FUEL COMBUSTION)	0.70	0.47
SEWAGE TREATMENT	0.03	0.04
LANDFILLS	0.17	0.23
INCINERATORS	0.04	0.05
SOIL REMEDIATION	0.01	0.01
OTHER (WASTE DISPOSAL)	0.00	0.00
LAUNDERING	0.00	0.00
DEGREASING	0.00	0.00
COATINGS AND RELATED PROCESS SOLVENTS	0.00	0.00
PRINTING	0.00	0.00
ADHESIVES AND SEALANTS	0.00	0.00
OTHER (CLEANING AND SURFACE COATINGS)	0.00	0.00
OIL AND GAS PRODUCTION	0.37	0.24
PETROLEUM REFINING	0.01	0.01
PETROLEUM MARKETING	0.04	0.06
OTHER (PETROLEUM PRODUCTION AND MARKETING)	0.00	0.00
CHEMICAL	0.30	0.44
FOOD AND AGRICULTURE	0.00	0.00
MINERAL PROCESSES	0.22	0.34
METAL PROCESSES	0.00	0.00
WOOD AND PAPER	0.00	0.00
GLASS AND RELATED PRODUCTS	6.04	4.69
ELECTRONICS	0.00	0.00
OTHER (INDUSTRIAL PROCESSES)	0.00	0.00
TOTAL STATIONARY SOURCES	42.42	29.50
AREAWIDE SOURCES		
CONSUMER PRODUCTS	0.00	0.00
ARCHITECTURAL COATINGS AND RELATED SOLVENTS	0.00	0.00
PESTICIDES/FERTILIZERS	0.00	0.00
ASPHALT PAVING / ROOFING	0.00	0.00
RESIDENTIAL FUEL COMBUSTION	3.91	4.03
FARMING OPERATIONS	0.00	0.00
CONSTRUCTION AND DEMOLITION	0.00	0.00
PAVED ROAD DUST	0.00	0.00
UNPAVED ROAD DUST	0.00	0.00
FUGITIVE WINDBLOWN DUST	0.00	0.00

San Joaquin Valley Air Basin, Summer NOx Emissions (tons/day)

Source: CEPAM 2016 Ozone SIP V. 1.03 with external adjustments

	2012	2031
AREAWIDE SOURCES (continued)		
FIRES	0.03	0.04
MANAGED BURNING AND DISPOSAL	0.81	0.78
COOKING	0.00	0.00
OTHER (MISCELLANEOUS PROCESSES)	0	0
TOTAL AREAWIDE SOURCES	4.75	4.85
ON-ROAD MOTOR VEHICLES		
LIGHT DUTY PASSENGER (LDA)	9.74	2.13
LIGHT DUTY TRUCKS - 1 (LDT1)	2.91	0.25
LIGHT DUTY TRUCKS - 2 (LDT2)	7.10	1.21
MEDIUM DUTY TRUCKS (MDV)	9.94	1.23
LIGHT HEAVY DUTY GAS TRUCKS - 1 (LHDV1)	2.84	0.54
LIGHT HEAVY DUTY GAS TRUCKS - 2 (LHDV2)	0.39	0.07
MEDIUM HEAVY DUTY GAS TRUCKS (MHDV)	0.78	0.09
HEAVY HEAVY DUTY GAS TRUCKS (HHDV)	0.23	0.09
LIGHT HEAVY DUTY DIESEL TRUCKS - 1 (LHDV1)	11.20	1.55
LIGHT HEAVY DUTY DIESEL TRUCKS - 2 (LHDV2)	2.86	0.19
MEDIUM HEAVY DUTY DIESEL TRUCKS (MHDV)	17.30	5.22
HEAVY HEAVY DUTY DIESEL TRUCKS (HHDV)	115.20	30.54
MOTORCYCLES (MCY)	0.83	0.74
HEAVY DUTY DIESEL URBAN BUSES (UB)	3.52	0.45
HEAVY DUTY GAS URBAN BUSES (UB)	0.22	0.07
SCHOOL BUSES - GAS (SBG)	0.09	0.01
SCHOOL BUSES - DIESEL (SBD)	0.99	0.32
OTHER BUSES - GAS (OBG)	0.20	0.04
OTHER BUSES - MOTOR COACH - DIESEL (OBC)	0.45	0.13
ALL OTHER BUSES - DIESEL (OBD)	0.55	0.16
MOTOR HOMES (MH)	0.40	0.07
TOTAL ON-ROAD MOTOR VEHICLES	187.71	45.12
OTHER MOBILE SOURCES		
AIRCRAFT	2.55	4.60
TRAINS	12.77	9.83
OCEAN GOING VESSELS	0.36	0.39
COMMERCIAL HARBOR CRAFT	0.71	0.38
RECREATIONAL BOATS	2.23	1.52
OFF-ROAD RECREATIONAL VEHICLES	0.11	0.17
OFF-ROAD EQUIPMENT	24.71	12.82
FARM EQUIPMENT	61.25	22.71
FUEL STORAGE AND HANDLING	0.00	0.00
TOTAL OTHER MOBILE SOURCES	104.68	52.42
AIR BASIN TOTAL	339.55	131.90