

West Mojave Plan Air Quality Evaluation Report

This report was prepared by the Mojave Desert Air Quality Management District Planning, Rulemaking and Grants staff on behalf of the West Mojave Planning Area air districts in April, 2013. Contact Alan De Salvio, Supervising Air Quality Engineer at 760-245-1661 x6726 or adesalvio@mdaqmd.ca.gov.

Introduction

The West Mojave (WEMO) Planning Area includes all or portions of five air quality districts (Mojave Desert Air Quality Management District (MDAQMD), Antelope Valley Air Quality Management District (AVAQMD), East Kern Air Pollution Control District (EKAPCD), the Great Basin Unified Air Pollution Control District (GBUAPCD), and the South Coast Air Quality Management District (SCAQMD)).

Air districts have statutory responsibility, in conjunction with the California Air Resources Board (CARB), to monitor air quality data (California Health and Safety Code §39607), with the intent of monitoring the public health, safety and welfare, including, but not limited to, health, illness, irritation to the senses, aesthetic value, interference with visibility, and effects on the economy (H&SC §39606(a)(2)). The WEMO Planning Area air districts (and CARB) operate an extensive ambient air monitoring network to meet this statutory requirement.

This report will summarize the nature of emissions within the WEMO Planning Area, how those emissions are monitored, summarize existing monitoring data, and discuss the existing monitoring network's ability to monitor off-highway vehicles and Open Areas.

WEMO Planning Area Emissions

The WEMO Planning Area includes the full gamut of emissions generated by mankind's activity, with the notable exception of emissions from waterborne activity, as the WEMO Planning Area has no coastal and sparse river and lakefront area. Emissions within the WEMO Planning Area are currently tabulated by CARB and air districts for State and Federal air quality planning purposes. Existing emission inventory efforts meet all State and Federal statutory and guidance inventory requirements. Specific emission inventory elements are presented below:

Substance	Nature	Basis for Inventory
Volatile Organic Compounds (VOC)	Ozone and fine particulate precursor	No direct ambient standard, indirect ozone standard, regional pollutant
Oxides of Nitrogen (NO _x)	Ozone and fine particulate precursor, includes air pollutant Nitrogen Dioxide (NO ₂)	Ambient standard, indirect ozone standard, regional pollutant
Carbon Monoxide (CO)	Air pollutant	Ambient standard, local and regional pollutant
Respirable Particulate Matter (PM ₁₀)	Air pollutant, includes PM _{2.5} , interferes with visibility	Ambient standard, local and regional pollutant
Fine Respirable Particulate	Air pollutant, interferes	Ambient standard, regional

Matter (PM2.5)	with visibility	pollutant
Oxides of Sulfur (SOx)	Air pollutant, fine particulate precursor, includes air pollutant Sulfur Dioxide (SO2)	Ambient standard, local and regional pollutant
Hazardous and Toxic Compounds (HAPs and TACs)	Unhealthy	No ambient standard, localized health effects, facility inventory only

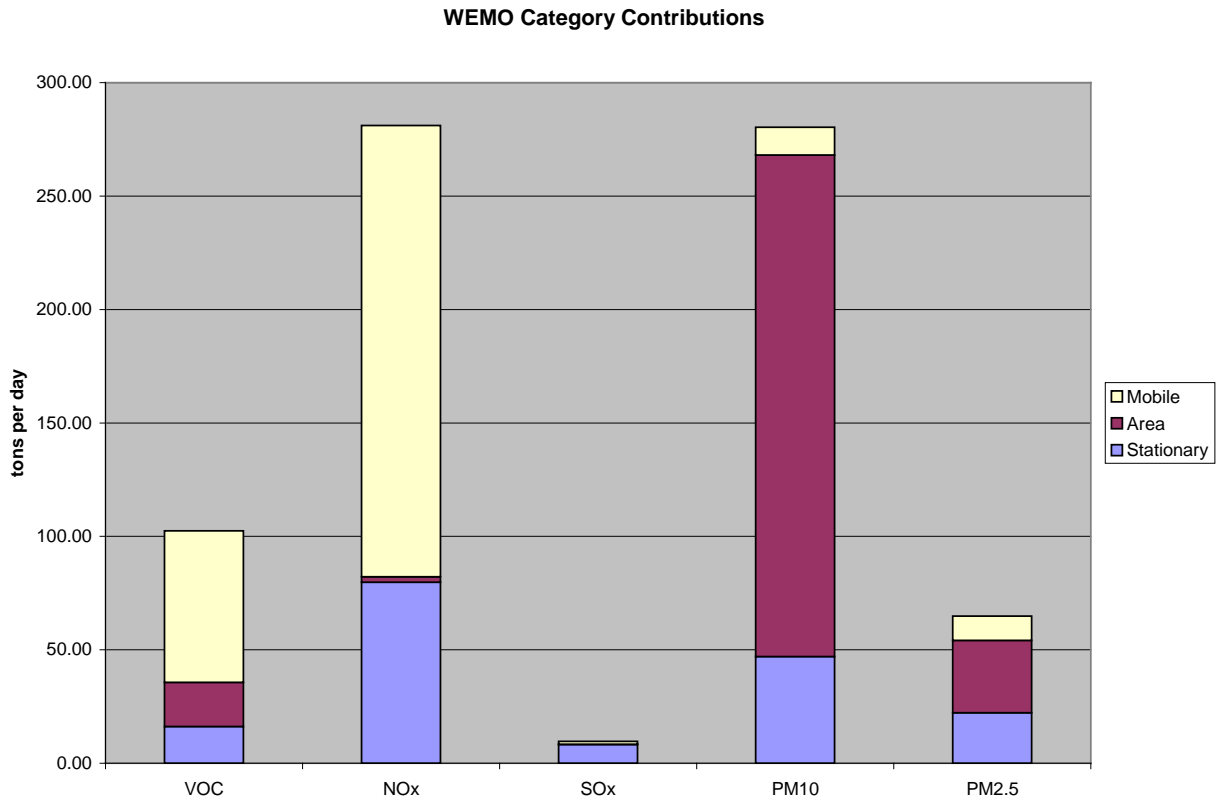
Existing emission inventory efforts cover all sources within the WEMO Planning Area. Emissions are typically grouped into three categories. For complete inventory details please refer to Appendix A of this report.

Inventory Category	Contributors in WEMO Planning Area
Stationary Sources	Industrial activity (mining, manufacturing, electricity generation, natural gas transmission) and military bases
Mobile Sources	On-road vehicles, off-road vehicles, aircraft and trains
Area Sources	Solvent use (fuel, paint, chemical), small combustion (fires, heating, cooking), small widespread sources (consumer products)

The WEMO Planning Area emissions inventory is presented below, in tons of emissions per day:

<i>Type</i>	<i>Category</i>	<i>VOC</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>PM2.5</i>
Stationary	Fuel Combustion	0.90	24.02	2.31	5.20	4.02
Stationary	Waste Disposal	0.27	0.07	0.12	0.30	0.07
Stationary	Cleaning and Surface Coatings	6.62	0.00	0.00	0.40	0.38
Stationary	Petroleum Production and Marketing	5.99	0.02	0.00	0.00	0.00
Stationary	Industrial Processes	2.42	55.69	5.83	41.15	17.83
Area	Solvent Evaporation	13.67	0.00	0.00	0.00	0.00
Area	Miscellaneous Processes	5.78	2.43	0.13	221.03	31.84
Mobile	On-Road Motor Vehicles	28.45	135.88	0.22	6.27	5.16
Mobile	Other Mobile Sources	38.31	62.99	0.99	6.00	5.59
Totals:		102.41	281.10	9.60	280.35	64.89

The relative contributions of sources within the WEMO Planning Area are presented below. Note that mobile sources dominate ozone precursor emissions, SOx emissions are relatively minor, and area sources dominate particulate emissions.



Off-Highway Vehicle Exhaust Contribution

Off-Highway Vehicles (OHVs) are directly inventoried as mobile sources, as the subcategory off-highway recreational vehicles. OHV exhaust is a negligible contributor to the WEMO Planning Area inventory except for VOC emissions. OHV VOC emissions are relatively high (in relation to other OHV exhaust emissions) because OHV engines are typically carbureted, rich burn engines without catalytic controls and hence have greater unburned fuel in their exhaust. Nevertheless VOC emissions are not a local pollutant but are a precursor to ozone formation – ozone is a regional pollutant. OHV exhaust is a negligible contributor to local emissions, and is a significant contributor only to VOC (a regional pollutant precursor).

OHV Open Area Contribution

OHV Open Areas are indirectly inventoried as area sources, as an element of the unpaved road dust and the fugitive windblown dust subcategories. OHV Open Areas are not significant contributors to either subcategory due to scale – the WEMO Planning Area includes thousands of miles of maintained and unmaintained unpaved roads and tracks, and tens of millions of acres of disturbed surface, and the contribution of the relatively small OHV Open Areas is equally relatively small. Regional experience with windblown dust has shown that heavily traveled unpaved roads and similar frequently disturbed (on at least a daily basis) surfaces are the primary contributor to regional dust problems. Confining OHV activity to existing defined OHV Open Areas has been an element of regional dust control planning for more than twenty years, and is an element of Federal PM10 planning. OHV Open Areas are not a significant contributor to regional dust (PM10) emissions.

WEMO Planning Area Ambient Monitoring

Forty-six ambient air monitoring sites are located in or adjacent to the WEMO Planning Area, operated by various air quality agencies or on their behalf. This existing network of sites monitors ambient pollutants and meteorological data to meet State and Federal ambient monitoring requirements, and represents a mix of neighborhood and regional scale monitors:

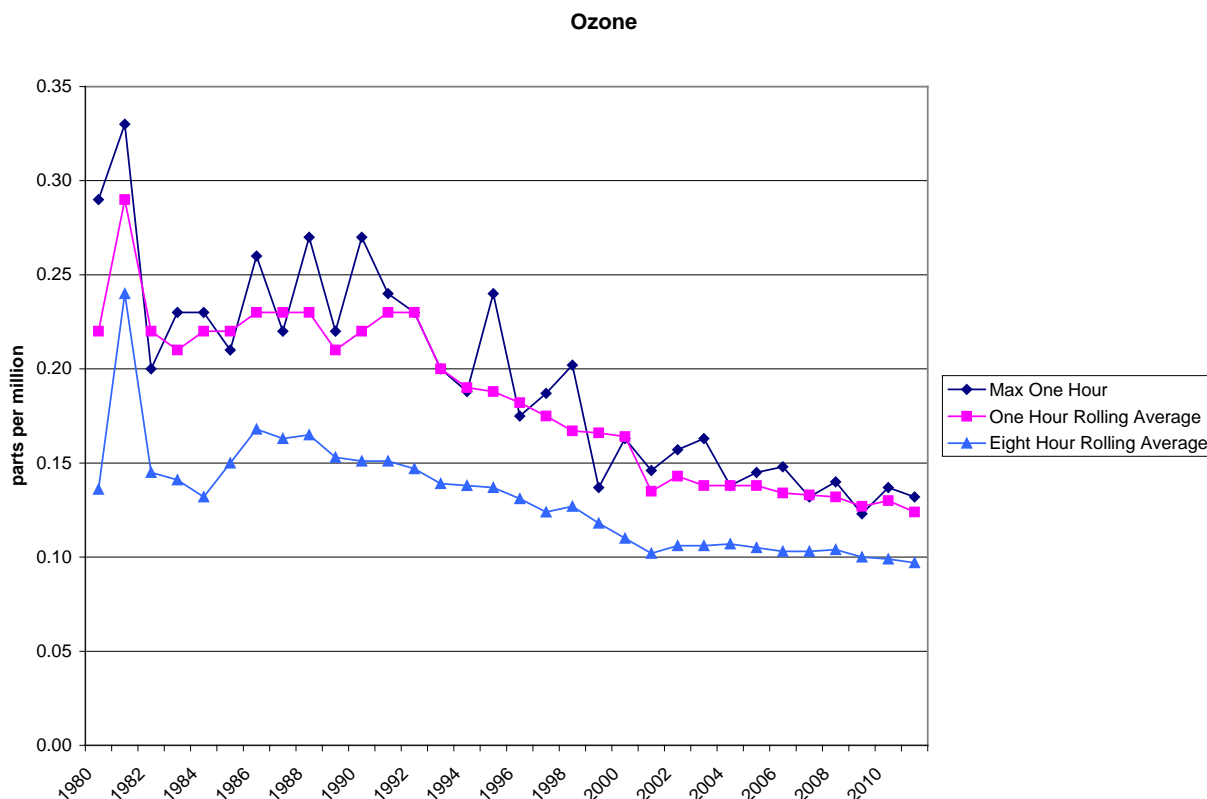
Name	OP Agency	Latitude	Longitude	Elev (m)
Coso Gate	Great Basin Unified APCD	36.0688	-117.755	1329
Coso Junction-10 miles E	Great Basin Unified APCD	36.0338	-117.7988	NA
Coso Junction-Highway 395 Rest Area	Great Basin Unified APCD	36.0497	-117.9438	1027
Death Valley Natl Monument	National Park Service	36.5089	-116.8478	125
Dirty Sox	Great Basin Unified APCD	36.3261	-117.955	1060
Flat Rock-Highway 190	Great Basin Unified APCD	36.4219	-117.8366	1133
Keeler-Cerro Gordo Road	Great Basin Unified APCD	36.4877	-117.8711	1097
Olancho-E Fall Road	Great Basin Unified APCD	36.2755	-117.9897	1097
Olancho-Walker Creek Road	Great Basin Unified APCD	36.2663	-117.9916	1100
Boron-26965 Cote Street	ARB Contractor	35.0036	-117.6511	750
Canebrake	California ARB	35.72778	-118.139312	914
China Lake-Powerline Road	Kern County APCD	35.7102	-117.6397	697
Inyokern-Airport	Great Basin Unified APCD	35.6513	-117.8241	759
Mojave-923 Poole Street	CARB/Kern County APCD	35.0503	-118.1478	853
Ridgecrest-100 West California Avenue	Kern County APCD	35.6211	-117.6731	701
Ridgecrest-Las Flores Avenue	Kern County APCD	35.6299	-117.6692	723
Tehachapi-Jameson Road	California ARB	35.1333	-118.425	1167
Lancaster-43301 Division Street	Antelope Valley APCD	34.6713	-118.1305	725
Lancaster-W Pondera Street	Mojave Desert AQMD	34.6899	-118.1327	725
Palmdale	ARB Contractor	34.5569	-118.1116	841
Blythe-445 West Murphy Street	Mojave Desert AQMD	33.6119	-114.6	83
Joshua Tree National Park-Pinto Wells	National Park Service	33.9397	-115.4108	326
Baldy Mesa	ARB Contractor	34.375	-117.4477	1295
Barstow	Mojave Desert AQMD	34.8938	-117.0244	690
Flash Mountain	ARB Contractor	34.7375	-117.565	1013
Hesperia-Olive Street	Mojave Desert AQMD	34.4158	-117.2861	1006
Joshua Tree-National Monument	National Park Service	34.0694	-116.3888	1244
Lucerne Valley-Middle School	Mojave Desert AQMD	34.4103	-116.9067	1036
Ludlow	ARB Contractor	34.7247	-116.1577	543
Mojave National Preserve	National Park Service	35.1019	-115.7767	1212
Phelan-Beekley Road and Phelan Road	Mojave Desert AQMD	34.425	-117.5897	1250
Quartzite Mountain	ARB Contractor	34.6116	-117.2888	1366
Shadow Mountain	ARB Contractor	34.7375	-117.565	1256
Trona-Athol	Mojave Desert AQMD	35.7742	-117.3686	498
Trona-Athol and Telegraph	Mojave Desert AQMD	35.7744	-117.3722	545
Twentynine Palms-Adobe Road #2	Mojave Desert AQMD	34.1419	-116.0553	607
Victorville-14306 Park Avenue	Mojave Desert AQMD	34.5122	-117.325	913
Victorville-Amargosa Road	Mojave Desert AQMD	34.5041	-117.3297	876
Joshua Tree National Park	National Park Service	33.7411	-115.8206	984
Banning Airport	South Coast AQMD	33.9208	-116.8583	473
Banning-Allesandro	South Coast AQMD	33.9211	-116.8583	722
Riverside-Rubidoux	South Coast AQMD	34.0005	-117.4152	250
Big Bear City-501 W. Valley Blvd	South Coast AQMD	34.2644	-116.8644	2056

Name	OP Agency	Latitude	Longitude	Elev (m)
Crestline	South Coast AQMD	34.2413	-117.2755	1384
Mount Baldy-Mount Baldy Road	California ARB	34.2391	-117.6208	1335
San Geronio Wilderness	National Park Service	34.19390	-116.9132	1726

Neighborhood scale monitors are located near population centers, and regional scale monitors are located in rural areas. Neighborhood scale monitors are used to characterize and monitor ambient air affecting nearby population, while tracking attainment of ambient air pollutant standards (or tracking progress towards attainment of those standards). Regional scale monitors are used to evaluate large geographic regions, and track overall background levels of ambient air pollutants.

WEMO Planning Area Ambient Ozone Data

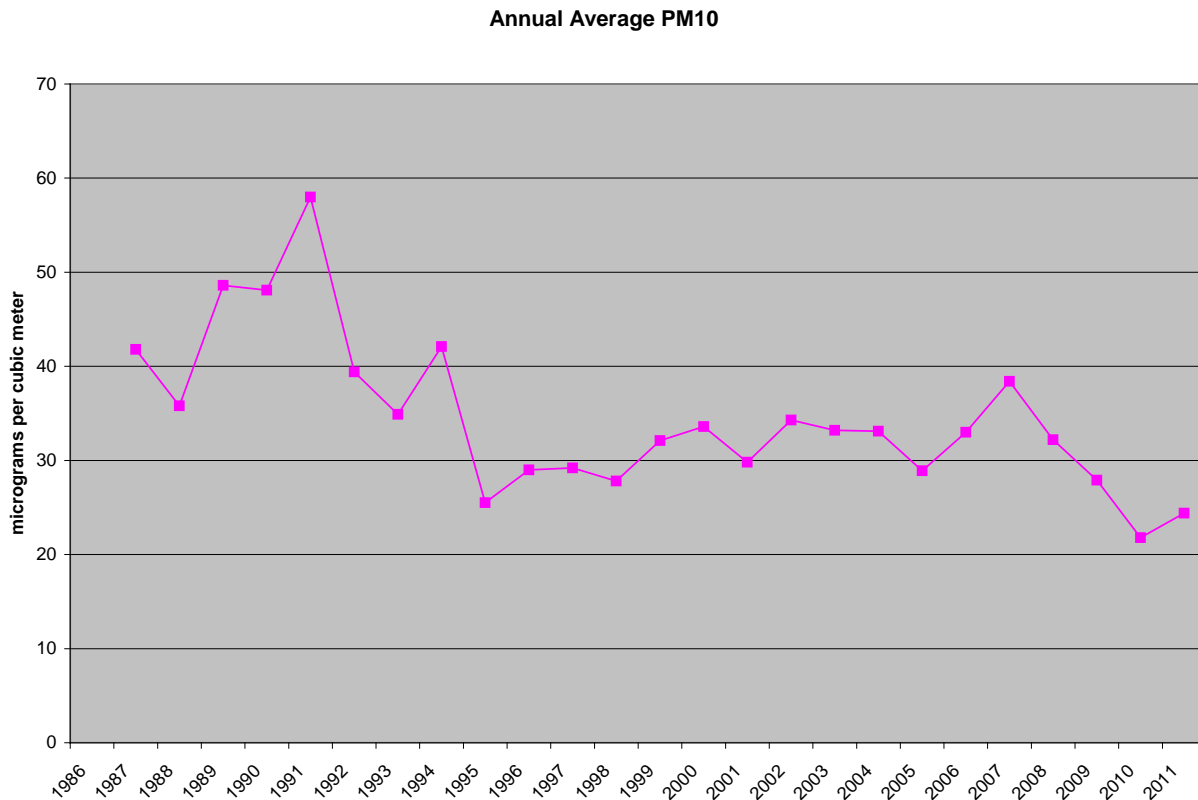
Ambient ozone values in the WEMO Planning Area are trending down as a result of Federal, State and local ozone precursor emission controls. These trends represent significant improvement in population exposure to ozone (at neighborhood scale monitors) and regional improvement in ozone levels (at regional scale monitors), despite significant increases in WEMO Planning Area population and associated emissions. Ambient ozone data for the WEMO Planning Area monitors is presented below.



WEMO Planning Area Ambient PM₁₀ Data

Ambient PM₁₀ values in the WEMO Planning Area have been reduced as a direct result of Federal PM₁₀ planning efforts, particularly in Owens Lake and Searles Valley areas.

Construction and demolition PM10 emissions have been reduced throughout the planning area through increased local regulation. The WEMO Planning Area population (and population-related emissions and surface disturbances) has increased over this time period. The WEMO Planning Area is predominately a windy, arid, low vegetation area, with relatively high dust levels due to exposed soils and high winds lifting those soils into the area. As a result the background levels of PM10 tend to be elevated, with common “exceptional” high wind dust events. The annual average ambient PM10 data for the WEMO Planning Area is presented below.



Ambient Monitoring Coverage of OHVs and OHV Open Areas

As discussed above, OHVs and OHV Open Areas are minor contributors to regional pollution, but are monitored by regional scale monitors by definition. The contribution of OHV use and OHV Open Area emissions near population centers are also monitored by the neighborhood scale monitors covering those population centers. The existing ambient air monitoring network in the WEMO Planning Area meets all Federal, State and local ambient air monitoring requirements, including monitoring ambient impacts from OHVs and OHV Open Areas.

Appendix A – WEMO Planning Area Emissions Inventory (Detail)

Type	Category	Subcategory	VOC	NOx	SOx	PM10	PM2.5
Stat	FUEL COMBUSTION	ELECTRIC UTILITIES	0.05	2.09	0.73	0.15	0.11
Stat	FUEL COMBUSTION	COGENERATION	0.03	4.20	0.46	0.17	0.15
Stat	FUEL COMBUSTION	MANUFACTURING AND INDUSTRIAL	0.19	4.36	0.68	0.42	0.44
Stat	FUEL COMBUSTION	FOOD AND AGRICULTURAL PROCESSING	0.06	0.62	0.03	0.03	0.02
Stat	FUEL COMBUSTION	SERVICE AND COMMERCIAL	0.32	9.26	0.13	0.37	0.37
Stat	FUEL COMBUSTION	OTHER (FUEL COMBUSTION)	0.25	3.49	0.28	4.06	2.93
Stat	WASTE DISPOSAL	SEWAGE TREATMENT	0.01	0.00	0.00	0.00	0.00
Stat	WASTE DISPOSAL	LANDFILLS	0.20	0.01	0.06	0.26	0.04
Stat	WASTE DISPOSAL	INCINERATORS	0.01	0.06	0.06	0.01	0.01
Stat	WASTE DISPOSAL	SOIL REMEDIATION	0.00	0.00	0.00	0.00	0.00
Stat	WASTE DISPOSAL	OTHER (WASTE DISPOSAL)	0.05	0.00	0.00	0.03	0.02
Stat	CLEANING AND SURFACE COATINGS	LAUNDERING	0.00	0.00	0.00	0.00	0.00
Stat	CLEANING AND SURFACE COATINGS	DEGREASING	4.13	0.00	0.00	0.00	0.00
Stat	CLEANING AND SURFACE COATINGS	COATINGS AND RELATED PROCESS SOLVENTS	2.26	0.00	0.00	0.21	0.20
Stat	CLEANING AND SURFACE COATINGS	PRINTING	0.05	0.00	0.00	0.19	0.18
Stat	CLEANING AND SURFACE COATINGS	ADHESIVES AND SEALANTS	0.16	0.00	0.00	0.00	0.00
Stat	CLEANING AND SURFACE COATINGS	OTHER (CLEANING AND SURFACE COATINGS)	0.02	0.00	0.00	0.00	0.00
Stat	PETROLEUM PRODUCTION AND MARKETING	OIL AND GAS PRODUCTION	0.08	0.00	0.00	0.00	0.00
Stat	PETROLEUM PRODUCTION AND MARKETING	PETROLEUM REFINING	0.01	0.00	0.00	0.00	0.00
Stat	PETROLEUM PRODUCTION AND MARKETING	PETROLEUM MARKETING	5.89	0.02	0.00	0.00	0.00
Stat	PETROLEUM PRODUCTION AND MARKETING	OTHER (PETROLEUM PRODUCTION AND MARKETING)	0.01	0.00	0.00	0.00	0.00
Stat	INDUSTRIAL PROCESSES	CHEMICAL	0.53	0.98	0.11	0.34	0.26
Stat	INDUSTRIAL PROCESSES	FOOD AND AGRICULTURE	0.03	0.00	0.00	0.02	0.01
Stat	INDUSTRIAL PROCESSES	MINERAL PROCESSES	1.37	49.04	5.51	28.85	10.74
Stat	INDUSTRIAL PROCESSES	METAL PROCESSES	0.02	0.49	0.00	0.01	0.01
Stat	INDUSTRIAL PROCESSES	WOOD AND PAPER	0.00	0.00	0.00	0.65	0.39
Stat	INDUSTRIAL PROCESSES	GLASS AND RELATED PRODUCTS	0.00	1.63	0.08	0.25	0.24
Stat	INDUSTRIAL PROCESSES	ELECTRONICS	0.00	0.00	0.00	0.00	0.00
Stat	INDUSTRIAL PROCESSES	OTHER (INDUSTRIAL PROCESSES)	0.47	3.55	0.13	11.03	6.18
Area	SOLVENT EVAPORATION	CONSUMER PRODUCTS	6.86	0.00	0.00	0.00	0.00
Area	SOLVENT EVAPORATION	ARCHITECTURAL COATINGS AND RELATED PROCESS SOLVENTS	2.73	0.00	0.00	0.00	0.00
Area	SOLVENT EVAPORATION	PESTICIDES/FERTILIZERS	1.71	0.00	0.00	0.00	0.00
Area	SOLVENT EVAPORATION	ASPHALT PAVING / ROOFING	2.37	0.00	0.00	0.00	0.00
Area	MISCELLANEOUS PROCESSES	RESIDENTIAL FUEL COMBUSTION	2.14	2.08	0.09	4.43	4.27
Area	MISCELLANEOUS PROCESSES	FARMING OPERATIONS	1.88	0.00	0.00	6.65	1.03
Area	MISCELLANEOUS PROCESSES	CONSTRUCTION AND DEMOLITION	0.00	0.00	0.00	23.27	2.32
Area	MISCELLANEOUS PROCESSES	PAVED ROAD DUST	0.00	0.00	0.00	17.69	2.66
Area	MISCELLANEOUS PROCESSES	UNPAVED ROAD DUST	0.00	0.00	0.00	113.02	11.66
Area	MISCELLANEOUS PROCESSES	FUGITIVE WINDBLOWN DUST	0.00	0.00	0.00	52.09	7.10
Area	MISCELLANEOUS PROCESSES	FIRES	0.02	0.01	0.00	0.04	0.04
Area	MISCELLANEOUS PROCESSES	MANAGED BURNING AND DISPOSAL	0.88	0.34	0.04	1.28	1.21
Area	MISCELLANEOUS PROCESSES	COOKING	0.86	0.00	0.00	2.56	1.55
Area	MISCELLANEOUS PROCESSES	OTHER (MISCELLANEOUS PROCESSES)	0.00	0.00	0.00	0.00	0.00
Mobile	ON-ROAD MOTOR VEHICLES	LIGHT DUTY PASSENGER (LDA)	6.65	6.54	0.05	0.50	0.30
Mobile	ON-ROAD MOTOR VEHICLES	LIGHT DUTY TRUCKS - 1 (LDT1)	3.90	4.41	0.02	0.19	0.12
Mobile	ON-ROAD MOTOR VEHICLES	LIGHT DUTY TRUCKS - 2 (LDT2)	3.50	5.76	0.03	0.36	0.24
Mobile	ON-ROAD MOTOR VEHICLES	MEDIUM DUTY TRUCKS (MDV)	1.66	3.09	0.02	0.17	0.11
Mobile	ON-ROAD MOTOR VEHICLES	LIGHT HEAVY DUTY GAS TRUCKS - 1 (LHDV1)	0.64	1.05	0.00	0.02	0.01
Mobile	ON-ROAD MOTOR VEHICLES	LIGHT HEAVY DUTY GAS TRUCKS - 2 (LHDV2)	0.28	0.33	0.00	0.00	0.00
Mobile	ON-ROAD MOTOR VEHICLES	MEDIUM HEAVY DUTY GAS TRUCKS (MHDV)	0.42	0.35	0.00	0.00	0.00
Mobile	ON-ROAD MOTOR VEHICLES	HEAVY HEAVY DUTY GAS TRUCKS (HHDV)	0.32	0.80	0.00	0.00	0.00
Mobile	ON-ROAD MOTOR VEHICLES	LIGHT HEAVY DUTY DIESEL TRUCKS - 1 (LHDV1)	0.03	1.25	0.00	0.01	0.01
Mobile	ON-ROAD MOTOR VEHICLES	LIGHT HEAVY DUTY DIESEL TRUCKS - 2 (LHDV2)	0.03	1.09	0.00	0.01	0.01
Mobile	ON-ROAD MOTOR VEHICLES	MEDIUM HEAVY DUTY DIESEL TRUCKS (MHDV)	0.07	3.39	0.00	0.08	0.07
Mobile	ON-ROAD MOTOR VEHICLES	HEAVY HEAVY DUTY DIESEL TRUCKS (HHDV)	7.54	104.92	0.10	4.83	4.23
Mobile	ON-ROAD MOTOR VEHICLES	MOTORCYCLES (MCY)	3.15	0.90	0.00	0.04	0.02
Mobile	ON-ROAD MOTOR VEHICLES	HEAVY DUTY DIESEL URBAN BUSES (UB)	0.01	0.14	0.00	0.00	0.00
Mobile	ON-ROAD MOTOR VEHICLES	HEAVY DUTY GAS URBAN BUSES (UB)	0.02	0.05	0.00	0.00	0.00
Mobile	ON-ROAD MOTOR VEHICLES	SCHOOL BUSES (SB)	0.05	0.88	0.00	0.04	0.04
Mobile	ON-ROAD MOTOR VEHICLES	OTHER BUSES (OB)	0.06	0.33	0.00	0.01	0.00
Mobile	ON-ROAD MOTOR VEHICLES	MOTOR HOMES (MH)	0.12	0.60	0.00	0.01	0.00
Mobile	OTHER MOBILE SOURCES	AIRCRAFT	4.97	3.86	0.43	3.07	3.04
Mobile	OTHER MOBILE SOURCES	TRAINS	3.56	35.22	0.31	1.19	1.09
Mobile	OTHER MOBILE SOURCES	RECREATIONAL BOATS	5.89	1.49	0.00	0.48	0.36
Mobile	OTHER MOBILE SOURCES	OFF-ROAD RECREATIONAL VEHICLES	18.48	0.79	0.23	0.22	0.16
Mobile	OTHER MOBILE SOURCES	OFF-ROAD EQUIPMENT	4.49	20.15	0.02	0.95	0.86
Mobile	OTHER MOBILE SOURCES	FARM EQUIPMENT	0.30	1.48	0.00	0.09	0.08
Mobile	OTHER MOBILE SOURCES	FUEL STORAGE AND HANDLING	0.62	0.00	0.00	0.00	0.00
Totals (tons per day):			102.41	281.10	9.60	280.35	64.89

Appendix B – WEMO Planning Area Ambient Monitoring Sites (Detail)

County	Name	AIRS ID	AQD ID	CO	NO2	SO2	OZONE	PM10	TSP Pb	PM2.5
Inyo County	Coso Gate	060270020								
Inyo County	Coso Junction-10 miles E	060271014	1400718					S/SI NS/RC		
Inyo County	Coso Junction-Highway 395 Rest Area	060271001	1400696					S/SI NS/RC		
Inyo County	Death Valley Natl Monument	060270101	1403151				SP/UV NS/RC	-/SI -/BL		
Inyo County	Dirty Sox	060270022						S/SI NS/RC		
Inyo County	Flat Rock-Highway 190	060270024						S/SI NS/RC		
Inyo County	Keeler-Cerro Gordo Road	060271003	1400728					S/SI NS/RC		S/SQ NS/RC
Inyo County	Olancha-E Fall Road	060270016	1400725					S/SI NS/RC		
Inyo County	Olancha-Walker Creek Road	060270021	1400729					S/SI NS/RC		
Kern County	Boron-26965 Cole Street	060299000					SP/UV US/BL			
Kern County	Canebrake	060290017						S/SI -/BL		
Kern County	China Lake-Powerline Road	060291001	1500211					S/SI US/RC	S/AG RS/BL	
Kern County	Inyokern-Airport	060290013	1500254					SP/US NS/IM		
Kern County	Mojave-923 Poole Street	060290011	1500252		S/CL US/RC		S/UV RS/HC	S/SI RS/HC		S/SQ NS/HC
Kern County	Ridgecrest-100 West California Avenue	060290015						S/SI NS/HC		S/SI NS/HC
Kern County	Ridgecrest-Las Flores Avenue	060290012	1500253					SP/US NS/IM		S/SI -/RC
Kern County	Tehachapi-Jameson Road	060291005	1503165				SP/UV -/J-	S/SI NS/RC		
Los Angeles County	Lancaster-43301 Division Street	060379033		S/R MS/-	S/CL MS/-		-/UV MS/-	S/SI NS/RC		S/- NS/RC
Los Angeles County	Lancaster-W Pondera Street	060379002	7000096	S/R NS/RC	S/CL NS/RC		S/UV NS/RC	S/SI NS/RC		S/SQ NS/RC
Los Angeles County	Palmdale	060379006					SP/UV RS/BL			
Riverside County	Blythe-445 West Murphy Street	060659003					S/UV -/J-			
Riverside County	Joshua Tree National Park-Pinto Wells	060651004								
San Bernardino County	Baldy Mesa	060719006					SP/UV NS/BL			
San Bernardino County	Barstow	060710001	3600155	S/R NS/RC	S/CL NS/RC	S/FL NS/RC	S/UV NS/RC	S/SI NS/RC	S/XG NS/RC	
San Bernardino County	Flash Mountain	060719007					SP/UV US/BL			
San Bernardino County	Hesperia-Olive Street	060714001	3600201	S/R NS/RC	S/CL NS/RC	S/FL NS/RC	S/UV NS/RC	S/SI NS/RC	S/XG NS/RC	
San Bernardino County	Joshua Tree-National Monument	060719002	3603152			-/FL -/BL	SP/UV RS/RC	-/SI -/BL		
San Bernardino County	Lucerne Valley-Middle School	060710013	3600208					S/SI NS/RC		
San Bernardino County	Ludlow	060719000					SP/UV RS/BL			
San Bernardino County	Mojave National Preserve	060711001								
San Bernardino County	Phelan-Beekley Road and Phelan Road	060710012	3600207	S/R NS/RC	S/CL NS/RC	S/FL NS/RC	S/UV NS/RC			
San Bernardino County	Quartzite Mountain	060719008					SP/UV NS/BL			
San Bernardino County	Shadow Mountain	060719003					SP/UV US/BL			
San Bernardino County	Trona-Athol	060710015	3600210		S/CL NS/RC	S/FL RS/RC	S/UV RS/RC	S/SI NS/RC	S/AG NS/RC	
San Bernardino County	Trona-Athol and Telegraph	060711234			S/CL NS/RC	S/FL RS/RC	S/UV RS/RC	S/SI NS/RC		
San Bernardino County	Twenty-nine Palms-Adobe Road #2	060710017	3600211	S/R NS/RC	S/CL NS/RC	S/FL NS/RC	S/UV RS/RC	S/SI NS/RC		
San Bernardino County	Victorville-14306 Park Avenue	060710306		S/- -/J-	S/CL -/J-		S/UV -/J-	-/SI -/J-		S/SQ NS/RC
San Bernardino County	Victorville-Armagosa Road	060710014	3600209	S/R NS/RC	S/CL NS/RC	S/FL NS/RC	S/UV NS/RC	S/SI NS/RC		S/SQ NS/RC
Riverside County	Joshua Tree National Park	060650008					-/UV -/BL			
Riverside County	Banning Airport	060650012	3300164		P/S/CL NS/RC		P/S/UV NS/RC	S/SI NS/RC		
Riverside County	Banning-Allesandro	060650002	3300150	-/R NS/RC		-/JCM NS/RC	S/UV MS/RC	S/SI NS/RC	S/XG NS/RC	
Riverside County	Riverside-Rubidoux	060658001	3300144	S/R MS/RC	S/CL US/RC	S/FL NS/RC	S/UV US/HC	S/SI NS/HC	S/AG NS/RC	S/SQ NS/HC
San Bernardino County	Big Bear City-501 W. Valley Blvd	060718001								S/SQ NS/RC
San Bernardino County	Crestline	060710005	3600181	-/R -/J-	-/CL -/J-		S/UV NS/HC	S/SI NS/RC	S/XG NS/RC	
San Bernardino County	Mount Baldy Mount Baldy Road	060710217		-/R -/J-			-/UV -/J-			
San Bernardino County	San Geronimo Wilderness	060719010						-/SI -/BL		

Name	OP Agency	Active	WS	WD	Temp	DPT	RH	SOL	UV	Press	Latitude	Longitude	Elevation	Site
Coso Gate	Great Basin Unified APCD	*	97-00	97-00	97-00		97-00				36.0688	-117.755	1329	3252
Coso Junction-10 miles E	Great Basin Unified APCD	*									36.0338	-117.7988	NA	2366
Coso Junction-Highway 395 Rest Area	Great Basin Unified APCD	*	97-00	97-00	97-00		97-00				36.0497	-117.9438	1027	2248
Death Valley Natl Monument	National Park Service	*	93-09	93-09	93-09		93-09	93-09			36.5089	-116.8478	125	3151
Dirty Sox	Great Basin Unified APCD	*	99-08	99-08	07-08						36.3261	-117.955	1060	3260
Flat Rock-Highway 190	Great Basin Unified APCD	*	01-08	01-08	07-08						36.4219	-117.8366	1133	3497
Keeler-Cerro Gordo Road	Great Basin Unified APCD	*	97-09	97-09	97-09						36.4877	-117.8711	1097	3154
Olancha E Fall Road	Great Basin Unified APCD	*	95-97	95-97	95-97		95-97		97-97		36.2755	-117.9897	1097	3118
Olancha-Walker Creek Road	Great Basin Unified APCD	*	97-09	97-09	97-09		97-09		97-09		36.2663	-117.9916	1100	3210
Boron 26965 Cole Street	ARB Contractor	*	95-95	95-95	95-95						35.0036	-117.6511	750	3218
Canebrake	California ARB	*									35.72778	-118.139312	914	3741
China Lake-Powerline Road	Kern County APCD	*									35.7102	-117.6397	697	2774
Inyokern-Airport	Great Basin Unified APCD	*									35.6513	-117.8241	759	3123
Mojave-923 Poole Street	California ARB/Kern County APCD	*	95-09	95-09	95-09				99-09		35.0503	-118.1478	853	3121
Ridgecrest-100 West California Avenue	Kern County APCD	*	08-09	08-09	08-09				08-09		35.6211	-117.6731	701	3492
Ridgecrest-Las Flores Avenue	Kern County APCD	*									35.6299	-117.6692	723	3122
Tehachapi-Jameson Road	California ARB	*	95-95	95-95	95-95						35.1333	-118.425	1167	3165
Lancaster-43301 Division Street	Antelope Valley APCD	*	01-09	01-09	01-09				01-09		34.6713	-118.1305	725	3658
Lancaster-W Pondera Street	Mojave Desert AQMD	*	94-01	94-01	98-01				98-01		34.6899	-118.1327	725	3607
Palmdale	ARB Contractor	*	95-95	95-95							34.5569	-118.1116	841	3219
Blythe-445 West Murphy Street	Mojave Desert AQMD	*	03-09	03-09	03-09						33.6119	-114.6	83	3673
Joshua Tree National Park-Pinto Wells	National Park Service	*	07-08	07-08	07-08		07-08	07-08			33.9397	-115.4108	326	3732
Baldy Mesa	ARB Contractor	*	95-95	95-95	95-95						34.375	-117.4477	1295	3259
Barstow	Mojave Desert AQMD	*	94-09	94-09	94-09				01-09		34.8938	-117.0244	690	2923
Flash Mountain	ARB Contractor	*	95-95	95-95	95-95						34.7375	-117.565	1013	3221
Hesperia-Olive Street	Mojave Desert AQMD	*	94-09	94-09	94-09				01-09		34.4158	-117.2861	1006	2650
Joshua Tree-National Monument	National Park Service	*	93-09	93-09	93-09	93-95	91-09	93-09			34.0694	-116.3888	1244	3152
Lucerne Valley-Middle School	Mojave Desert AQMD	*									34.4103	-116.9067	1036	2961
Ludlow	ARB Contractor	*	95-95	95-95	95-95						34.7247	-116.1577	543	3257
Mojave National Preserve	National Park Service	*	08-08	08-08	08-08		08-08	08-08			35.1019	-115.7767	1212	3733
Phelan-Beekley Road and Phelan Road	Mojave Desert AQMD	*	94-09	94-09	97-09						34.425	-117.5897	1280	2830
Quartzite Mountain	ARB Contractor	*	95-95	95-95							34.6116	-117.2888	1366	3222
Shadow Mountain	ARB Contractor	*	95-95	95-95							34.7375	-117.565	1256	3220
Trona-Athol	Mojave Desert AQMD	*	94-97	94-97	97-97				97-97		35.7742	-117.3686	498	2990
Trona-Athol and Telegraph	Mojave Desert AQMD	*	97-09	97-09	97-09				97-09		35.7744	-117.3722	545	3215
Twenty-nine Palms-Adobe Road #2	Mojave Desert AQMD	*	94-05	94-05	97-05				97-05		34.1419	-116.0553	607	3124
Victorville-14306 Park Avenue	Mojave Desert AQMD	*	00-09	00-09	00-09		00-09		00-09		34.5122	-117.325	913	3500
Victorville-Armagosa Road	Mojave Desert AQMD	*	94-99	94-99	94-99		94-99		97-99		34.5041	-117.3297	876	2963
Joshua Tree National Park	National Park Service	*	05-09	05-09	05-09		05-09	05-09			33.7411	-115.8206	984	3697
Banning Airport	South Coast AQMD	*	97-09	97-09	97-09		97-09	98-09	01-09	00-09	33.9208	-116.8583	473	3168
Banning-Allesandro	South Coast AQMD	*	94-99	94-99							33.9211	-116.8583	722	2514
Riverside-Rubidoux	South Coast AQMD	*	94-09	94-09	94-09		04-09				34.0005	-117.4152	250	2596
Big Bear City-501 W. Valley Blvd	South Coast AQMD	*									34.2644	-116.8644	2056	3266
Crestline	South Coast AQMD	*	94-09	94-09			94-09				34.2413	-117.2755	1384	2499
Mount Baldy Mount Baldy Road	California ARB	*	97-97	97-97	97-97		97-97				34.2391	-117.6208	1335	3212
San Geronimo Wilderness	National Park Service	*					93-04				34.19390	-116.9132	1726	3700