

SECTION 2

POINT SOURCES

Point sources are those facilities for which individual source records are maintained in an emission inventory. For the purposes of the current inventory, EPA has designated 100 tons/year as the cutoff level for CO and NO_x point sources. The cutoff level for VOC point sources is 10 tons/year. Sources with emissions below these levels may also be treated as point sources if the responsible agency elects to do so.

Within Washoe County and the Truckee Meadows, all point sources with criteria pollutant emissions in excess of two (2) pounds/day (0.37 tons/year) are tracked through the AQMD's permitting database. Updated production/activity data are obtained annually during the permit renewal process. In 2002, there were 1,180 permits issued from this database. Complete lists of the 916 general air permits, 200 gas stations, and 64 restaurants with VOC, NO_x, and CO emissions are included in Appendix A.1. A search of the AQMD database was performed to determine which sources should be inventoried as point sources. All permits were not treated as point sources since emissions for the majority of these sources are significantly below the recommended point source cutoff levels. The emissions of all permitted sources not included in this section are included in the area or mobile source sections of this inventory.

There were 17 permitted sources (72 permits total) in Washoe County with VOC emissions which exceeded 10 tons/year in 2002, and no permitted sources exceeded 100 tons/year for either NO_x or CO. All these sources and their 2002 emissions were entered into the EPA National Emission Inventory (NET) through the Central Data Exchange (CDX).

In addition to sources located in the Washoe County non-attainment area, EPA guidance documents require inclusion of 100 tons/year VOC, CO, or NO_x sources within 25 miles of the non-attainment area boundary. It was determined that within the 25-mile buffer zone of the Washoe County ozone non-attainment area there were six (6) such sources. Because the buffer-zone sources are out of Washoe County jurisdiction, staff contacted adjacent air agencies to determine if they had major sources in the buffer zone. The six sources that were identified were located in Nevada so emissions data were obtained from the Nevada Division of Environmental Protection (NDEP) Bureau of Air Quality (BAQ). Appendix A.2 contains the NDEP list from which the emissions data for the buffer-zone sources were obtained.

A total of 17-point sources were included in this inventory. The complete list of those sources is given in Table 2-1. Annual emission estimates for the Washoe County permitted sources were derived using either material balance or AP-42². The method utilized for each point source is listed in Table 2-1. Rule effectiveness and control device efficiency was applied to annual emission calculations where appropriate. Five of the inventoried point sources met the Washoe County criteria for submittal of Emission Statements.

Seasonally adjusted emissions were determined after the seasonal adjustment factor (SAF) was calculated using the following equation:

$$SAF = \frac{(Peak\ O_3\ Season\ Activity)(12\ months)}{(Annual\ Activity)(Peak\ O_3\ Season\ Months = 3)}$$

Then peak season daily emissions were determined using the equation below:

$$E_s = \frac{E_A * SAF}{D * W_s}$$

where:

- E_s = Seasonally adjusted emissions (lbs/day)
- E_A = Annual emissions of VOC, NO_x, or CO (lbs/year)
- SAF = Seasonal adjustment factor
- W_s = Weeks of the year
- D = Days in operation per week (days/week)

For sources with temperature-dependent VOC emissions (e.g. on-road motor vehicles, organic liquid storage tanks), EPA models or AP-42 equations were used in conjunction with the temperature data given in Table 1-1 to calculate seasonal emissions when determined necessary.

The calculation methods utilized to obtain emission estimates are outlined in the Appendix. Utilization of control device efficiency and rule effectiveness is also demonstrated in the examples in the Appendix. Table 2-1 indicates which section of the Appendix pertains to each point source.

The actual annual and peak season emissions for each of the sources listed in Table 2-1 are given in Table 2-2. A summary of point source emissions by source type is given in Table 2-3. Figure 5 graphically summarizes the VOC emissions for point sources. It is evident from Table 2-3 that the majority of NO_x and CO emissions from point sources are derived from the buffer-zone sources so emissions from those pollutants were not depicted graphically.

Data for each of the Washoe County point sources listed in Table 2-1 was submitted to EPA National Emission Trend database. At a minimum, the data elements required for ozone emission inventory submittals were provided. The data was collected during the annual permit renewal processes or when a source was required to submit Emission Statement information.

**TABLE 2-1
EMISSION ESTIMATION PROCEDURE USED FOR POINT SOURCES**

PLANT NAME AND PERMIT NUMBERS	LOCATION	EMISSION ESTIMATION METHOD	APPENDIX
ADVANCED FOAM PLASTICS, INC. – C01730A	902 Kleppe Lane, Sparks NV 89431	Material Balance	A.3
AIRPORT AUTHORITY OF WASHOE COUNTY – J01419A	2000 National Guard Way, Reno NV 89502	Material Balance	A.3
ATLANTIS HOTEL CASINO – B5036r	3800 S. Virginia St., Reno, NV 89502	Material Balance	A.3
BERRY-HINCKLEY TERMINAL, INC. – C01417A, K01021A-K01023A, K01328A, K01329A, K01747A	147 Stanford Way, Sparks NV 89431	AP-42 & EPA Tanks 3 Program	A.5
DATA-FORMS, INC. – K01957A	1070 Matley Lane, Reno, NV 89502	Material Balance	A.3
DYNAMIC ISOLATION SYSTEMS – A01-0013	2080 Briery Way #101, Sparks, NV 89434	Material Balance	A.3
GRANITE CONSTRUCTION/ LOCKWOOD – F01610A	Exit 21/22 Interstate 80 East, Lockwood	Material Balance	A.3
HOLLY DECORATIONS, INC.—A01470A	650 Lillard Drive, Sparks NV 89431	Material Balance	A.3
INTERNATIONAL GAME TECHNOLOGY - K01163A, K01295A	9295 Prototype Way, Reno NV 89511	Material Balance & AP-42	A.3 & A.4
MARTIN IRON WORKS – K00902A	530 East Fourth Street, Reno, NV 89512	Material Balance	A.3
R.R. DONNELLEY & SONS CO. -- D65TV	14100 Lear Blvd., Reno NV 89506	Material Balance & AP-42	A.3 & A.4
RATECH INDUSTRIES—A01482A	855 Gregg Street, #103, Sparks NV	Material Balance	A.3
RENAISSANCE MARK -- F01189A	295 Lillard Dr., Sparks NV 89431	Material Balance	A.3
RENO GAZETTE JOURNAL – C01024A, A02-0006	955 Kuenzli, Reno, NV 89502	Material Balance	A.3
SANTA FE PACIFIC PIPELINES -- B01195A thru B01206A, C01346A, C01404A, L00070A thru L00082A, L00098A, L00465A, L00513A, L00538A, L00613A, L00614A, L00933A, L00934A, L01345A, L01695A, L01811A, and L01195A thru L01199A	301 Nugget Avenue, Sparks NV 89431	AP-42 & EPA Tanks 3 Program	A.5
SHORELINE TERMINALS, LLC (shares an afterburner with SANTA FE PACIFIC PIPELINES) – C01333A, K00508A thru K00510A, K00602A, and K01215A thru K01217A	525 Nugget Avenue, Sparks NV 89431	AP-42 & EPA Tanks 3 Program	A.5
SIERRA CONVERTING CORPORATION—L01356A	1400 Kleppe Lane, Sparks NV	Material Balance	A.3
STEAMBOAT DEVELOPMENT CORP. – A90A	1010 Power Plant Drive, Reno NV 89511	Material Balance	A.3
U.S ENERGY GEOTHERMAL, LLC – A01177A	1010 Power Plant Drive, Reno NV 89511	Material Balance	A.3
BUFFER ZONE SOURCES			
Lockwood Sanitary Landfill	I-80 East, in Storey County	NDEP BAQ	A.2
Naniwa Energy LLC - TRI Peaking Generating Station	I-80 East, in Storey County	NDEP BAQ	A.2
Nevada Cement	Fernley, Nevada in Lyon County	NDEP BAQ	A.2
Quebecor World Nevada Inc. - Fernley Printing Plant	Fernley, Storey County	NDEP BAQ	A.2
Sierra Pacific Power Company/Tracy	I-80 East, in Storey County	NDEP BAQ	A.2
Valley Joist Fernley Facility	Fernley, Storey County	NDEP BAQ	A.2

TABLE 2-2
EMISSIONS FROM POINT SOURCES INCLUDED IN THE WASHOE COUNTY OZONE INVENTORY

Facility Name	VOC Emissions		Nox Emissions		CO Emissions	
	tons/yr	lbs/O3-day	tons/yr	lbs/O3-day	tons/yr	lbs/O3-day
S, T & M of VOL						
Berry-Hinckley Industries Terminal*	12.52	72.23	-	-	-	-
SFPP, L.P./Shore Terminals, LLC	73.56	424.38	-	-	-	-
Subtotal	86.08	496.62				
Industrial Surface Coating						
Airport Authority of Washoe County	15.49	85.11	-	-	-	-
Holly Decorations, Inc.	22.37	122.91	-	-	-	-
International Game Technology	20.88	160.62	-	-	-	-
Martin Iron Works	10.31	79.31	-	-	-	-
Subtotal	69.05	447.95				
Other Solvent Use						
Data-Forms, Inc.	13.59	104.54	-	-	-	-
R.R. Donnelly & Sons Co.	117.5	645.60	12.99	71.37	9.59	52.69
Renaissance Mark	30.44	180.12	-	-	-	-
Reno Gazette Journal	20.65	113.46	0.07	0.38	-	-
Sierra Converting Corporation	32.94	253.38	-	-	-	-
Subtotal	215.12	1,297.11	13.06	71.76	9.59	52.69
Misc. Sources						
Advanced Foam Plastics, Inc.	10.23	78.69	-	-	-	-
Atlantis Hotel Casino	11.26	61.87	0.12	0.66	11.62	63.85
Dynamic Isolation Systems	22.29	171.46	-	-	-	-
Granite Construction/ Lockwood	11.83	86.45	21.67	158.36	47.67	348.36
Steamboat Development Corp.	49.49	271.92	-	-	-	-
U.S. Energy Geothermal, LLC	10.67	58.63	-	-	-	-
Subtotal	115.77	729.02	21.79	159.02	59.29	412.20
Total	486.02	2,970.69	34.85	230.78	68.88	464.90

* Rule Effectiveness was applied

**TABLE 2-3
SUMMARY OF POINT SOURCE EMISSIONS BY CATEGORY**

Category	VOC		NO _x		CO	
	Tons/yr	lbs/O ₃ day	tons/yr	lbs/O ₃ day	tons/yr	lbs/O ₃ day
Storage, transportation, and marketing of VOL	86*	497*	--	--	--	--
Industrial Surface Coating	69	448	--	--	--	--
Other Solvent Use	215	1,297	13	72	10	53
Miscellaneous Washoe County Sources	116	7293	22	159	59	412
WC TOTAL	400	9,038	35	231	69	465
Buffer-Zone Sources	269	1,480	4,396	24,153	220	1,208
GRAND TOTAL	669	10,518	4,431	24,384	289	1,673

*Rule Effectiveness was applied

2002 Washoe County Annual VOC Emissions for Stationary Point Sources (tons/year)

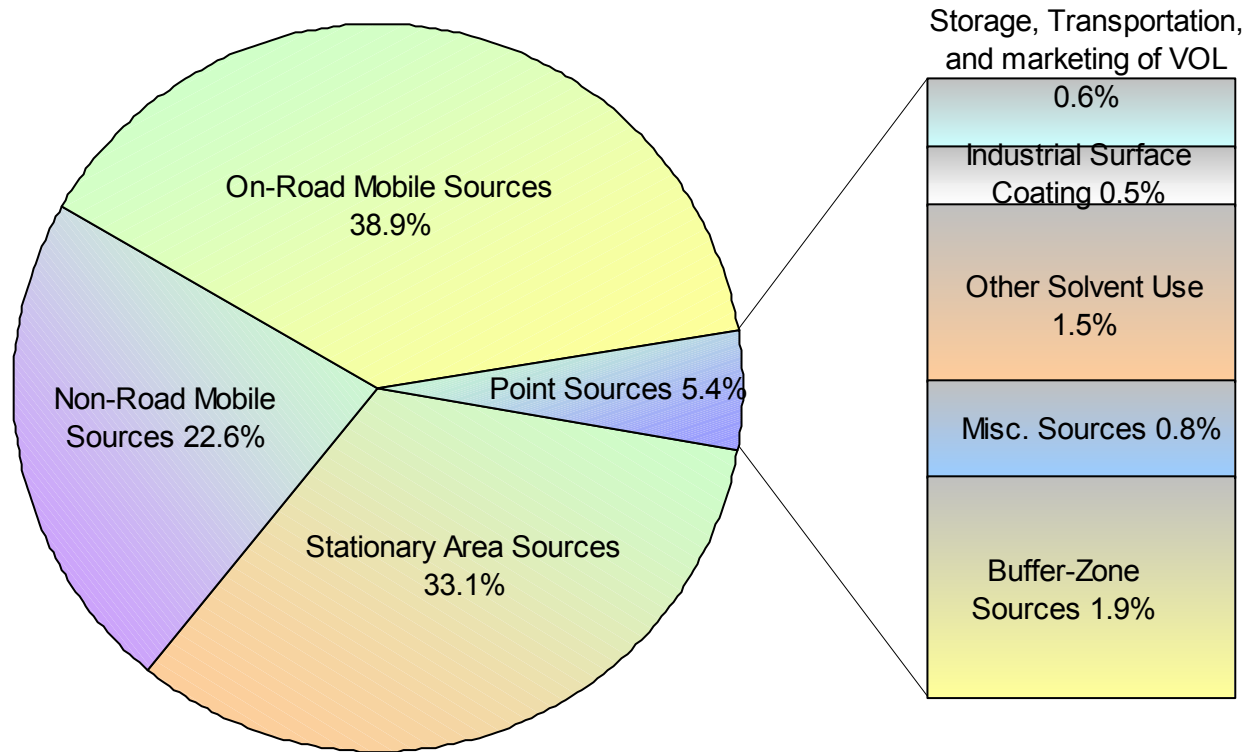


Figure 2-1

2002 Washoe County Annual NOx Emissions for Stationary Point Sources (tons/year)

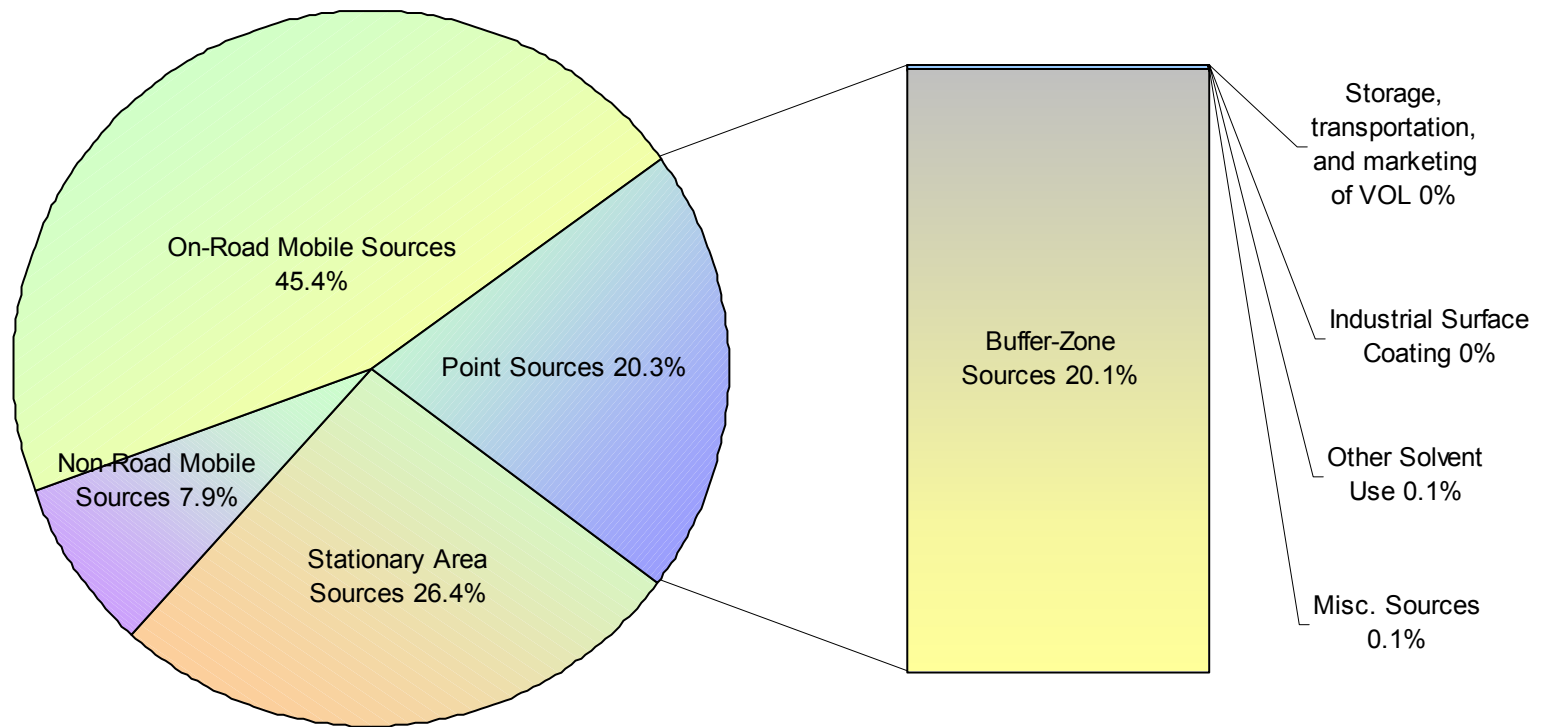


Figure 2-2

2002 Washoe County Annual CO Emissions for Stationary Point Sources (tons/year)

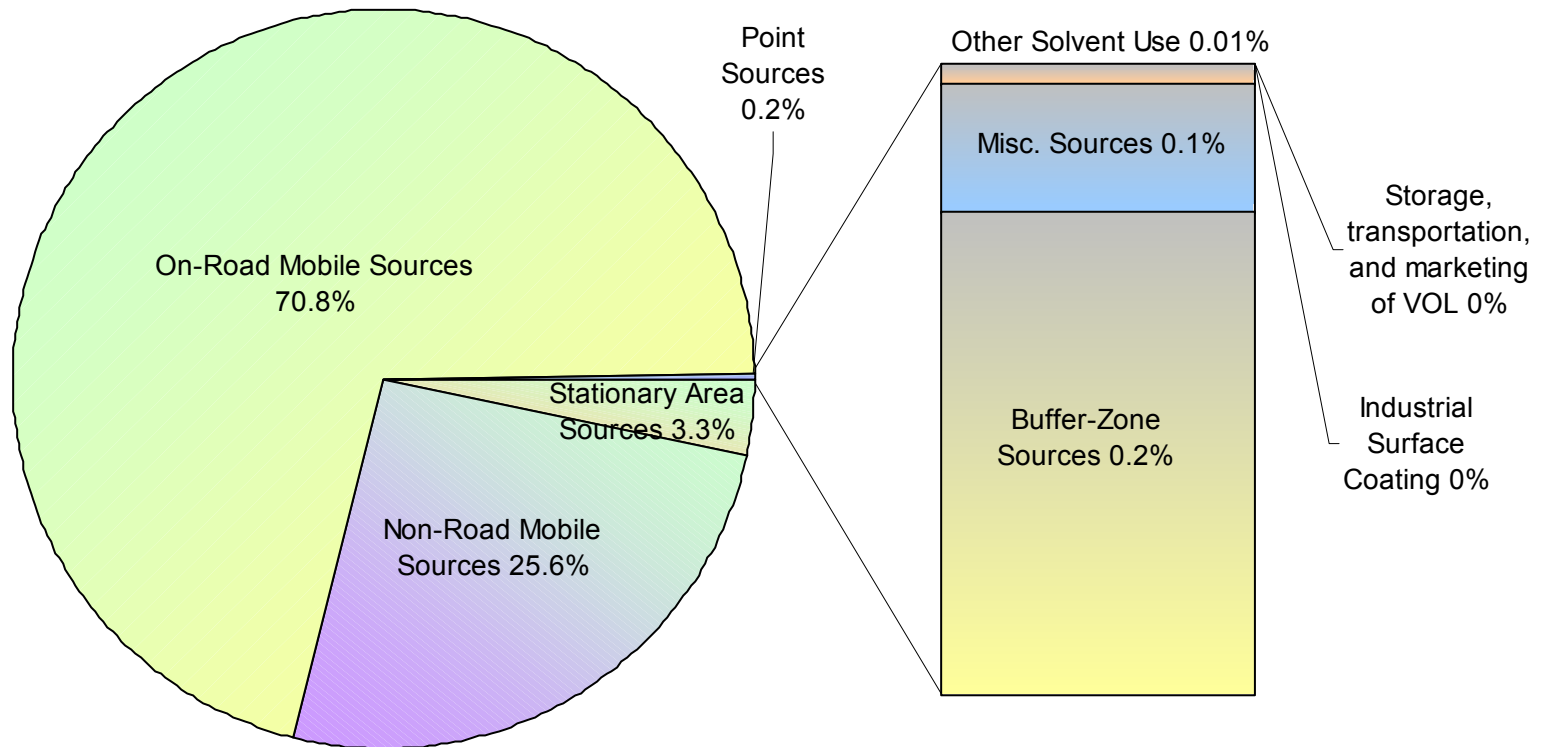


Figure 2-3