

## **Summary of Results**

Exhibit 1-7 summarizes the national emission estimates by sector for each of the scenario years evaluated in this study. Exhibit 1-8 provides emission results for all sectors combined for the same set of scenario years. Exhibit 1-9 provides a graphic summary of the reductions associated with CAAA implementation for each pollutant, disaggregated by emitting sector. The ammonia emissions results, because they do not always involve reductions across the two scenarios, are not reasonably presented in this format, so are omitted from Exhibit 1-9. The results are discussed in detail in each of the subsequent chapters.

Exhibits 1-7 through 1-9 incorporate the results for the local controls analysis to meet attainment requirements for 8-hour ozone and PM<sub>2.5</sub> ambient standards, as well as the Clean Air Visibility Rule (CAVR, also known as the BART rule), that is described in detail in Chapter 8. The incremental emission reductions expected to be associated with attaining the 8-hour ozone NAAQS, the PM<sub>2.5</sub> NAAQS, and CAVR are measured from the core scenarios analysis with-CAAA scenario; to the extent that measures are identified as applying to a specific sector, the reductions are incorporated in the sector and pollutant specific results in Exhibits 1-7 and 1-9. Additional reductions needed for compliance but for which we have not identified a specific sector target are incorporated in Exhibit 1-8 and are presented as a separate category in Exhibit 1-9.

**Exhibit 1-7. Summary of National (48 State) Emission Estimates by Scenario Year**

Pollutant	Sector	1990	2000 without-CAAA	2000 with-CAAA	2010 without-CAAA	2010 with-CAAA	2020 without-CAAA	2020 with-CAAA
VOC	EGU	34,558	40,237	40,882	43,333	42,661	48,001	46,991
	Non-EGU Point	2,609,368	3,083,990	1,441,342	3,480,293	1,493,293	4,029,231	1,713,651
	Nonpoint	11,678,038	12,907,437	8,544,345	14,164,412	8,516,143	16,618,917	9,323,745
	Nonroad	2,665,710	3,217,810	2,564,790	4,076,796	1,874,723	4,753,500	1,489,644
	On-Road Vehicle	9,327,660	5,872,983	5,245,756	5,734,012	2,601,317	6,784,539	1,652,172
NO <sub>x</sub>	EGU	6,410,533	7,734,000	4,493,981	8,349,482	2,306,784	8,686,216	1,650,472
	Non-EGU Point	3,133,450	3,328,534	2,278,144	3,554,720	1,976,336	3,996,770	2,197,028
	Nonpoint	4,801,016	4,691,751	3,885,707	4,881,947	3,677,899	5,242,354	3,714,079
	Nonroad	2,067,745	2,190,711	2,091,459	2,664,838	1,634,025	3,162,409	996,255
	On-Road Vehicle	9,535,993	8,782,108	8,073,738	9,105,919	4,289,872	10,695,419	1,888,484
CO	EGU	303,713	496,430	503,306	602,048	617,860	750,538	771,654
	Non-EGU Point	5,667,404	6,466,885	3,138,265	6,808,311	3,330,740	7,381,762	3,713,336
	Nonpoint	17,514,726	16,604,526	14,613,968	15,761,435	14,605,108	16,271,263	15,451,487
	Nonroad	22,176,262	25,458,930	22,330,110	31,541,817	26,229,083	37,199,473	28,999,459
	On-Road Vehicle	109,566,997	79,037,081	67,130,866	80,491,386	42,387,967	95,549,545	36,239,508
SO <sub>2</sub>	EGU	15,831,702	18,146,659	10,819,399	18,867,532	6,365,458	18,738,860	4,018,838
	Non-EGU Point	4,293,268	4,261,741	2,198,926	4,761,255	2,167,390	5,209,932	2,380,879
	Nonpoint	2,469,598	2,179,658	1,875,282	2,573,424	1,877,630	3,171,574	1,941,752
	Nonroad	163,254	178,247	177,095	225,300	16,930	270,252	2,750
	On-Road Vehicle	500,064	632,766	253,592	797,345	29,954	986,882	36,457
PM <sub>10</sub>	EGU	530,663	751,696	728,719	834,655	644,103	896,790	626,053
	Non-EGU Point	1,277,270	1,464,183	498,632	1,668,399	498,256	1,881,910	589,650
	Nonpoint	25,155,038	25,303,549	19,329,848	24,656,631	18,839,093	25,908,596	19,008,593
	Nonroad	308,562	286,623	265,778	323,187	200,660	367,252	130,593
	On-Road Vehicle	384,733	247,056	220,854	229,246	152,064	268,733	134,848
PM <sub>2.5</sub>	EGU	357,674	634,287	610,638	704,443	515,115	762,326	495,254
	Non-EGU Point	722,442	828,322	425,087	939,451	441,316	1,065,848	521,514
	Nonpoint	5,790,623	5,879,111	4,103,247	5,749,651	4,054,176	6,137,398	4,159,880
	Nonroad	283,960	263,798	244,620	297,466	184,593	338,036	120,262
	On-Road Vehicle	321,852	191,723	165,515	169,690	94,204	199,153	70,188
NH <sub>3</sub>	EGU	0	3,217	3,162	1,023	822	612	559
	Non-EGU Point	243,615	236,126	931,996	237,459	1,073,038	255,636	1,274,891
	Nonpoint	3,509,844	3,973,874	3,551,567	4,196,096	3,713,161	4,507,484	3,986,783
	Nonroad	1,530	1,789	1,715	2,248	2,042	2,665	2,399
	On-Road Vehicle	154,103	272,569	272,464	336,083	334,417	397,618	395,319

Note: These estimates do not include reductions from unidentified measures, which total 352,059 tons for VOC and 324,940 tons for NO<sub>x</sub> in 2010, 320,252 tons of VOC and 360,161 tons for NO<sub>x</sub> in 2020.

**Exhibit 1-8. Emission Totals and Reductions by Pollutant - All Sectors (thousand tons per year)**

Pollutant	1990	2000			2010			2020		
		<i>without-CAAA</i>	<i>with-CAAA</i>	Reduction	<i>without-CAAA</i>	<i>with-CAAA</i>	Reduction	<i>without-CAAA</i>	<i>with-CAAA</i>	Reduction
VOC	26,315	25,122	17,837	7,285	27,499	14,528	12,971	32,234	14,226	18,008
NO <sub>x</sub>	25,949	26,727	20,823	5,904	28,557	13,885	14,672	31,783	10,446	21,337
CO	155,229	128,064	107,717	20,347	135,205	87,171	48,034	157,153	85,175	71,977
SO <sub>2</sub>	23,258	25,399	15,324	10,075	27,225	10,457	16,767	28,378	8,381	19,997
PM <sub>10</sub>	27,656	28,053	21,044	7,009	27,712	20,334	7,378	29,323	20,490	8,834
PM <sub>2.5</sub>	7,477	7,797	5,549	2,248	7,861	5,289	2,571	8,503	5,367	3,136
NH <sub>3</sub>	3,909	4,488	4,761	-273	4,773	5,123	-351	5,164	5,660	-496

Exhibit 1-9. Reductions Associated with CAAA Compliance by Emitting Sector

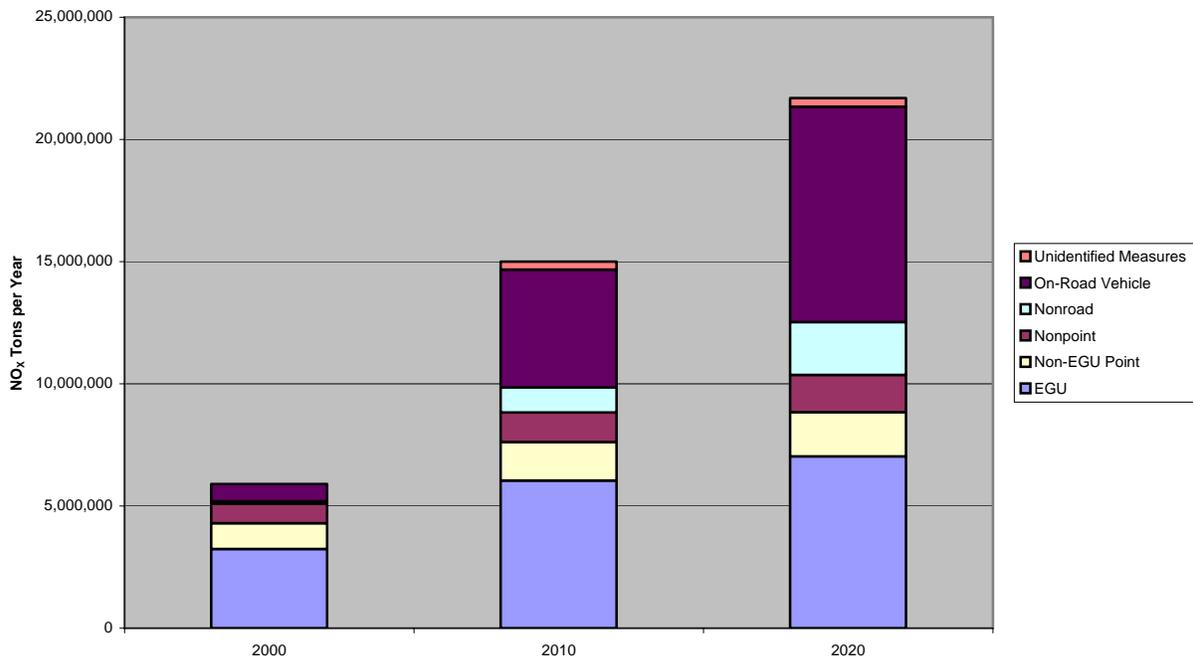
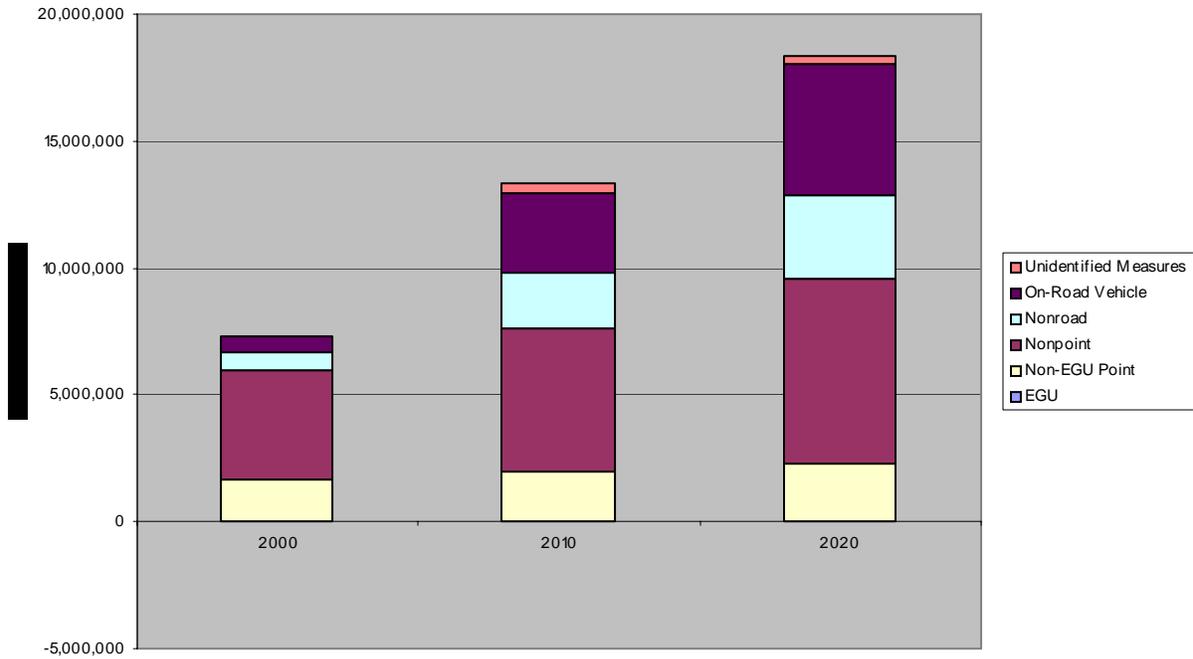


Exhibit 1-9. (continued)

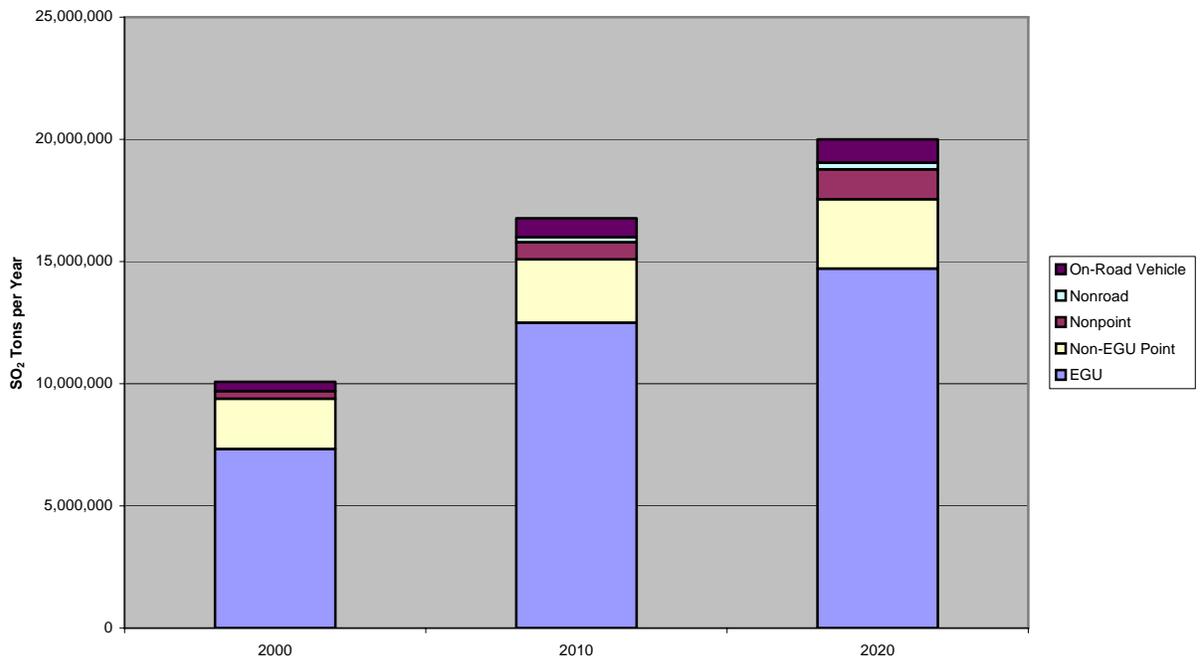
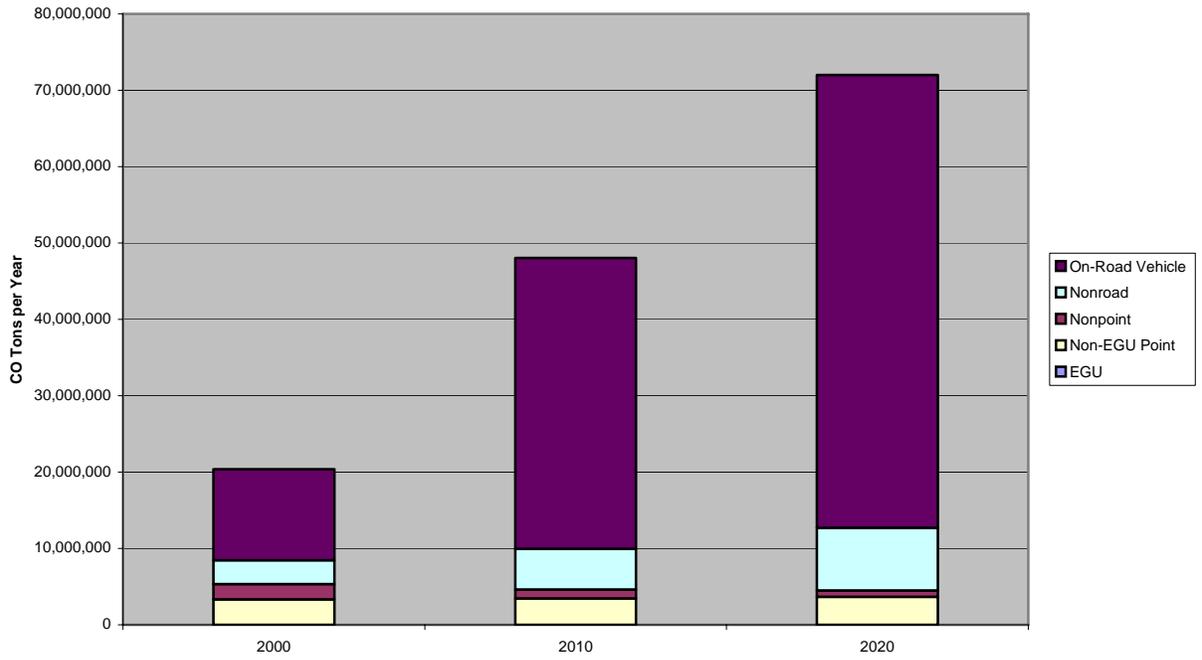


Exhibit 1-9. (continued)

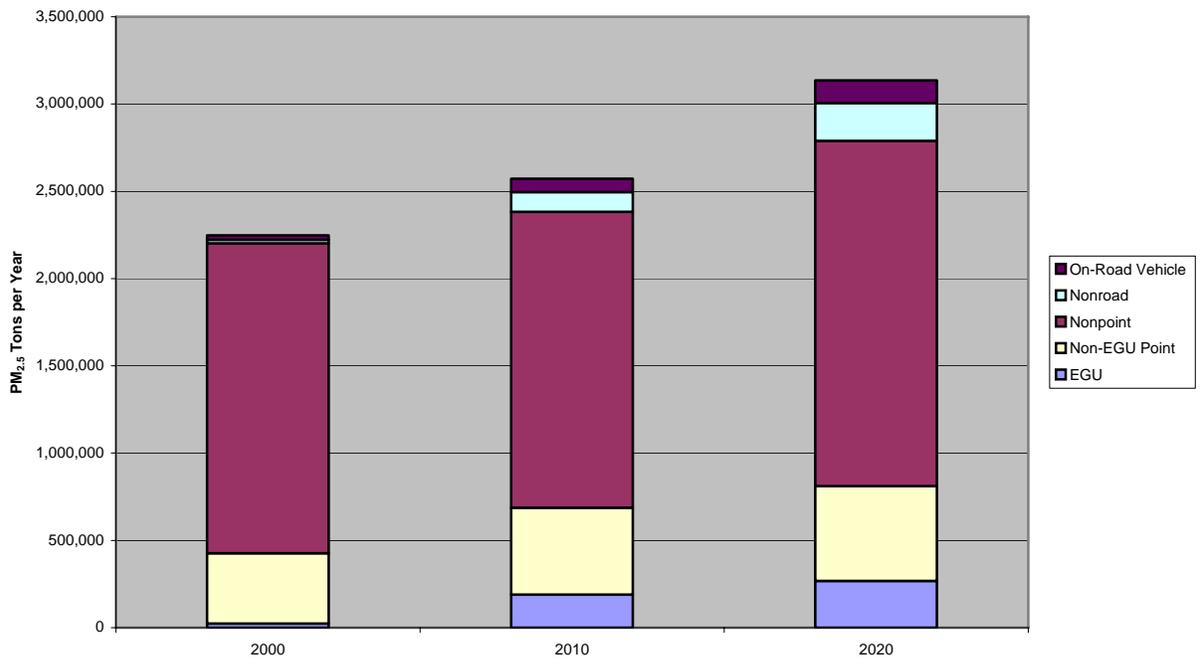
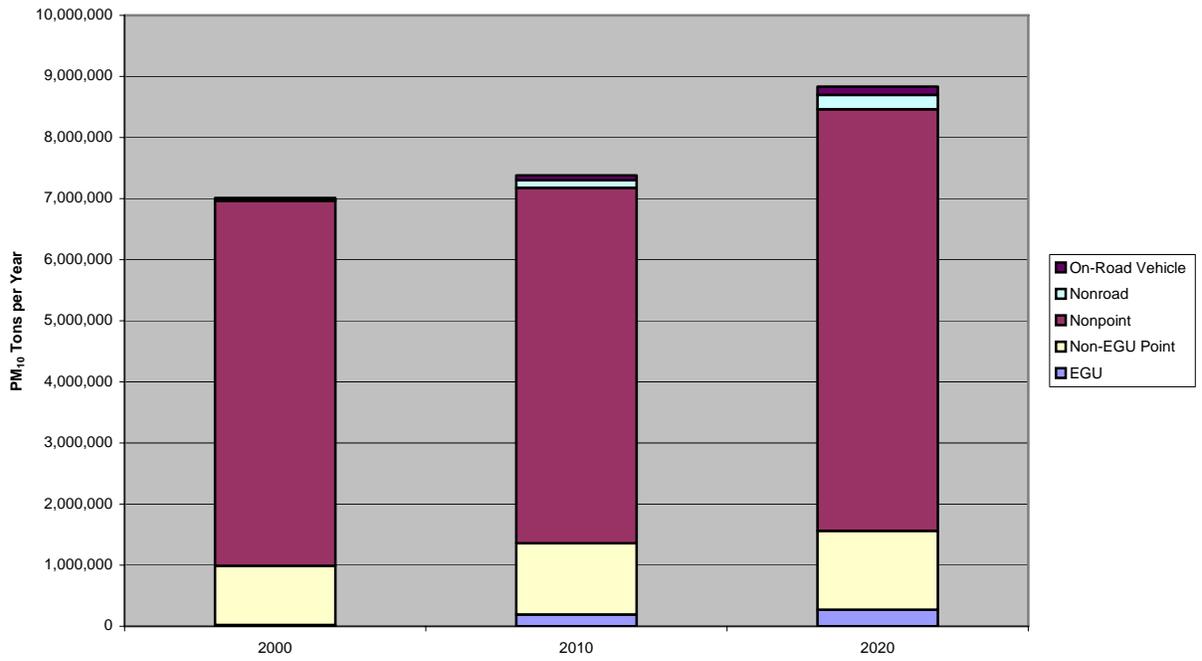


Exhibit 1-9. (continued)

