

TABLE 1.1 SUMMARY 2002 MASSACHUSETTS STATEWIDE EMISSIONS								
VOC, NOx, CO, SO2, NH3, PM10 AND PM2.5								
TONS PER YEAR (TPY), SUMMER DAY (TPSD), WINTER DAY (TPWD)								
vocnox2002/sum02/aug 22 /2007								
(Revised: Asphalt Paving, Degreasing & Adhesives)								
VOC (Figures 1.2 and 1.3)						VOC With Biogenics:		
	VOC TPY	TPY %	TPSD	TPSD %	VOC TPY	TPSD	TPSD %	
1	STATIONARY POINT	5,647	2.0%	16.0	2.2%	5,647	16.0	1.1%
2	STATIONARY AREA	159,753	57.2%	327.6	45.5%	159,753	327.6	21.7%
3	ON-ROAD MOBILE6.2	57,186	20.5%	151.9	21.1%	57,186	151.9	10.1%
4	OFF-ROAD MOBILE	56,577	20.3%	223.8	31.1%	56,577	223.8	14.8%
5	<i> BIOGENICS (BEIS-3)</i>					<i>113,957</i>	<i>790.3</i>	<i>52.4%</i>
	TOTAL	279,163	100%	719.3	100.0%	393,120	1,509.6	100.0%
NOx (Figure 1.4)						NOx With Biogenics:		
	NOX TPY	TPY %	TPSD	TPSD %	NOx TPY	TPSD		
1	STATIONARY POINT	45,590	17.1%	129.6	16.9%	45,590	129.6	
2	STATIONARY AREA	34,371	12.9%	39.1	5.1%	34,371	39.1	
3	ON-ROAD MOBILE6.2	143,368	53.9%	453.1	59.1%	143,368	453.1	
4	OFF-ROAD MOBILE	42,906	16.1%	144.5	18.9%	42,906	144.5	
5	<i> BIOGENICS (BEIS-3)</i>					<i>1,257</i>	<i>5.5</i>	
	TOTAL	266,235	100%	766.3	100.0%	267,492	771.8	
CO (Figures 1.5 and 1.6)						TPWD	TPWD %	
	CO TPY	TPY %	TPSD	TPSD %				
1	STATIONARY POINT	12,104	0.7%	33.3	0.8%	33.3	0.6%	
2	STATIONARY AREA	137,278	8.3%	66.7	1.6%	1,027.9	19.8%	
3	ON-ROAD MOBILE6.2	1,039,100	62.9%	2,162.7	50.9%	3,347.3	64.6%	
4	OFF-ROAD MOBILE	462,382	28.0%	1,985.6	46.7%	770.4	14.9%	
	Anthropogenic Total	1,650,864	100%	4,248.3	100.0%	5,178.9	100.0%	
5	<i> BIOGENICS (BEIS-3)</i>	<i>11,594</i>		<i>71.6</i>		<i>6.4</i>		
	TOTAL with Biogenics	1,662,458		4,319.8		5,185.3		
REGIONAL HAZE POLLUTANTS						SO2 TPY	TPY %	Figure 1.7
		SO2 TPY	TPY %	Figure 1.7	NH3 TPY	TPY %	Figure 1.8	
1	STATIONARY POINT	99,057	74.6%		862	3.7%		
2	STATIONARY AREA	25,585	19.3%		16,876	72.5%		
3	ON-ROAD MOBILE6.2	4,399	3.3%		5,499	23.6%		
4	OFF-ROAD MOBILE	3,758	2.8%		28	0.1%		
	TOTAL	132,799	100%		23,265	100.0%		
		PM10 TPY	TPY %	Figure 1.9	PM2.5 TPY	TPY %	Figure 1.10	
1	STATIONARY POINT	839	0.4%		92	0.2%		
2	STATIONARY AREA	27,778	14.0%		24,932	51.0%		
3	ON-ROAD MOBILE6.2	3,408	1.7%		2,410	4.9%		
4	OFF-ROAD MOBILE	3,450	1.7%		3,152	6.5%		
5	FUG.DUST (Roads, Constr)	163,591	82.2%		18,271	37.4%		
	TOTAL	199,065	100%		48,856	100.0%		

TABLE 1.2 STATEWIDE 2002 VOC & NOX EMISSIONS BY CATEGORIES

VOCNOX2002/vocnox1/ OCT24/ 2007		VOC	VOC	Percent	VOC	VOC	NOx	NOx	Percent	NOx	NOx
(Revised: Asphalt Paving & Degreasing, adhesives)		VOC	VOC	Percent	TPSD	TPSD	NOx	NOx	Percent	TPSD	TPSD
SOURCE CATEGORY	SCC	TPY	TPSD	of Total	EMA	WMA	TPY	TPSD	of Total	EMA	WMA
POINT SOURCES											
1. NOx Budget Sources		533.0	1.50	0.21%	1.28	0.22	32940.0	82.77	10.80%	74.49	8.28
2. Other Point Sources		5114.0	14.50	2.02%	12.35	2.15	12650.0	46.83	6.11%	42.15	4.68
TOTAL POINT SOURCES		5647.0	16.00	2.22%	13.63	2.37	45590.0	129.60	16.91%	116.64	12.96
AREA SOURCES											
<u>Waste Treatment</u>											
1. POTW's	2630020000	511.4	1.40	0.19%	0.97	0.43					
2. HW TSDF	2640000000	84.1	0.23	0.03%	0.08	0.15					
3. MSW Landfills	2620030000	1497.2	4.10	0.57%	2.99	1.12					
<u>Total Waste Management</u>		2092.7	5.73	0.80%	4.04	1.70					
<u>Gasoline Distribution</u>											
1. Tank Truck Unl. (Stage 1)	2501060051	2081.4	6.72	0.93%	5.65	1.08					
2. Vehicle Refuel. (Stage 11)		In On-Road Mobile category									
3. Underground Tank Brea	2501060201	1425.6	3.91	0.54%	3.28	0.62					
4. Transit Losses	2505030120	213.3	0.69	0.10%	0.58	0.11					
5. Aircraft Refuel.	2275900101	275.8	0.76	0.11%	0.73	0.03					
6. Petro Vessel Unload.	2505020000	459.0	1.25	0.17%	1.25	0.00					
7. Portable Fuel Contain R	2501011000	5534.3	15.16	2.11%	13.03	2.13					
8. Portable Fuel Contain C	2501012000	1054.2	2.89	0.40%	2.48	0.41					
<u>Total Gasoline Distribution</u>		11043.6	31.38	4.36%	27.00	4.38					
<u>Stationary Source Solvent Evap.</u>											
1. Dry Cleaning	2420000000	9.0	0.03	0.00%	0.03	0.00					
2. Surface Cleaning -degre	2415000000	8477.6	32.61	4.53%	28.24	4.37					
3. Commerc/Consumer So	2465000000	22690.1	62.16	8.64%	54.26	7.91					
4. Graphic Arts:	2425000000	3683.1	14.17	1.97%	12.28	1.89					
5. Industrial Adhesives -Po	402007xxxx	347.4	0.95	0.13%	0.81	0.14					
6. Industrial Adhesives -Ar	2440020000	3526.9	9.66	1.34%	8.21	1.45					
<u>Total Solvent Evaporation</u>		38734.1	119.58	16.62%	103.83	15.76					
<u>Non-Indus. Surface Coating:</u>											
1. Auto. Refinish	2401005000	2380.5	9.16	1.27%	7.84	1.31					
2. AIM Architect. Coating	2401001000	11827.2	42.12	5.86%	36.77	5.36					
3. AIM Traffic Marking	2401008000	1285.6	4.58	0.64%	4.00	0.58					
3.AIM High Perf. Maintena	2401100000	2056.9	7.33	1.02%	6.39	0.93					
4. AIM Oth. Specity Purp C	2401200000	2056.9	7.33	1.02%	6.39	0.93					
<u>Total Auto Ref & AIM Coating</u>		19607.1	70.52	9.80%	61.39	9.11					
<u>Industrial Coating:</u>											
1. Furniture & Fixtures	2401020000	2560.4	9.85	1.37%	8.42	1.43					
2. Metal Containers	2401040000	201.6	0.78	0.11%	0.61	0.16					
3. Motor Vehicles New	2401070000	121.1	0.47	0.07%	0.41	0.05					
4. Machinery & Equip.	2401055000	3687.4	14.18	1.97%	12.22	1.96					
5. Appliances	2401060000	863.9	3.32	0.46%	2.85	0.47					
6. Other Transportation Eq	2401990000	439.1	1.69	0.23%	1.42	0.26					
7. Metal Sheet, Strip,Coil	2401045000	956.3	3.68	0.51%	3.30	0.37					
8. Factory Finished Wood	2401015000	2736.6	10.53	1.46%	9.13	1.39					
9. Electric Insulation	2401065000	820.7	3.16	0.44%	2.73	0.43					
10. Other Prod. Coating	2401090000	1928.3	7.42	1.03%	6.47	0.94					
11. Marine Coatings	2401080000	242.1	0.93	0.13%	0.81	0.12					
<u>Total Industrial Coating</u>		14557.5	56.01	7.79%	48.37	7.58					
<u>Miscellaneous Solvents:</u>											
1. Cutback Asphalt	2461022000	328.5	3.64	0.51%	3.18	0.46					
1. Emulsified Asphalt	2461021000	434.4	4.79	0.67%	4.18	0.61					
2. Pesticide Use	2461800000	910.7	4.26	0.59%	2.97	1.29					
3. Bakeries	2302050000	648.3	1.78	0.25%	1.61	0.16					
4. Breweries/Wineries	2302070001	86.8	0.24	0.03%	0.21	0.03					
5. Petroleum Spills	2830000000	327.3	0.90	0.13%	0.73	0.17					
6. Asphalt Roofing	2461023000	536.7	2.41	0.34%	1.95	0.46	10.4	0.05	0.01%	0.04	0.01
7. Leaking USTs	2660000000	6.1	0.02	0.00%	0.01	0.00					
<u>Total Miscellaneous Solvents</u>		3278.8	18.0	2.51%	14.84	3.18	10.40	0.05	0.01%	0.04	0.01
<u>Small Stationary Fuel Combustion</u>											
1. Residential Coal	2104002000	10.0	0.00	0.00%	0.00	0.00	3.0	0.00	0.00%	0.00	0.00
2. Residential D.Oil	2104004000	330.4	0.32	0.04%	0.28	0.04	8340.9	8.16	1.06%	7.12	1.04
3. Residential N.Gas	2104006000	300.5	0.29	0.04%	0.25	0.04	5136.1	5.02	0.66%	4.38	0.64
4. Residential Wood-burnir	2104008000	66217.0	15.14	2.10%	13.01	2.13	1332.0	0.17	0.02%	0.15	0.02
5. Residential Kerosene	2104011000	2.0	0.00	0.00%	0.00	0.00	51.6	0.05	0.01%	0.04	0.01
6. Residential LPG	2104007000	18.5	0.02	0.00%	0.02	0.00	863.6	0.85	0.11%	0.74	0.11
<u>Total Residential Fuel</u>		66878.4	15.77	2.19%	13.56	2.21	15727.2	14.25	1.86%	12.43	1.82

TABLE 1.2 STATEWIDE 2002 VOC & NOX EMISSIONS BY CATEGORIES (Cont'd)											
VOCNOX2002/vocnox// OCT24/ 2007		VOC	VOC	Percent	VOC	VOC	NOx	NOx	Percent	NOx	NOx
SOURCE CATEGORY		TPY	TPSD	of Total	TPSD	TPSD	TPY	TPSD	of Total	TPSD	TPSD
		EMA	WMA		EMA	WMA				EMA	WMA
1. Commercial/Instit Coal	2103001000	0.0	0.00	0.00%	0.00	0.00	0.0	0.00	0.00%	0.00	0.00
2. Commercial/Instit D.Oil	2103004000	26.6	0.03	0.00%	0.02	0.01	1566.6	1.81	0.24%	1.57	0.24
3. Commercial/Instit R.Oil	2103005000	0.7	0.00	0.00%	0.00	0.00	34.5	0.04	0.01%	0.03	0.01
4. Commercial/Instit N.Gas	2103006000	168.2	0.19	0.03%	0.16	0.03	3059.0	3.53	0.46%	3.06	0.47
5. Commercial/Instit Keros	2103011000	0.5	0.00	0.00%	0.00	0.00	32.0	0.04	0.01%	0.03	0.01
6. Commercial/Instit LPG	2103007000	3.3	0.00	0.00%	0.00	0.00	152.3	0.18	0.02%	0.16	0.02
7. Commercial/Instit Wood	2103081000	15.3	0.02	0.00%	0.02	0.00	198.0	0.23	0.03%	0.20	0.03
Total Commercial/Instit Fuel		214.6	0.24	0.03%	0.20	0.04	5042.4	5.83	0.76%	5.05	0.78
1. Small Industrial Coal	2102001000	0.1	0.00	0.00%	0.00	0.00	11.8	0.02	0.00%	0.02	0.00
2. Small Industrial D.Oil	2102004000	22.0	0.03	0.00%	0.02	0.01	388.7	0.54	0.07%	0.47	0.07
3. Small Industrial R.Oil	2102005000	0.0	0.00	0.00%	0.00	0.00	0.0	0.00	0.00%	0.00	0.00
4. Small Industrial N.Gas	2102006000	443.3	0.61	0.08%	0.53	0.08	8060.6	11.16	1.46%	9.66	1.50
5. Small Industrial Kerosen	2102011000	0.1	0.00	0.00%	0.00	0.00	2.9	0.00	0.00%	0.00	0.00
6. Small Industrial LPG	2102001000	6.1	0.01	0.00%	0.01	0.00	283.5	0.39	0.05%	0.33	0.06
7. Small Industrial Wood-P	2102008000	362.1	0.50	0.07%	0.43	0.07	4686.0	6.49	0.85%	5.58	0.91
Total Small Industrial Fuel		833.7	1.15	0.16%	0.99	0.16	13433.5	18.6	2.43%	16.06	2.54
1. Open Burning -M.Solid	2610030000	0.8	0.00	0.00%	0.00	0.00	1.2	0.00	0.00%	0.00	0.00
2. Open Burning -Brush W	2610000400	174.3	0.13	0.02%	0.10	0.03	45.9	0.03	0.00%	0.02	0.01
3. Open Burning -Leaf Bur	2610000100	17.3	0.00	0.00%	0.00	0.00	3.8	0.00	0.00%	0.00	0.00
4. Open Burning -Yard Wa	2610040400	142.3	0.11	0.02%	0.09	0.02	37.5	0.03	0.00%	0.02	0.01
Total Open Burning		334.7	0.24	0.03%	0.19	0.05	88.4	0.06	0.01%	0.04	0.02
1. Wildfires: Forest/Brush	2810001000	345.3	1.69	0.23%	1.36	0.33	57.2	0.28	0.04%	0.23	0.05
2. Structural Fires	2810030000	75.9	0.18	0.03%	0.15	0.02	9.7	0.02	0.00%	0.02	0.00
3. Vehicle Fires	2610000000	17.3	0.05	0.01%	0.04	0.01	2.2	0.01	0.00%	0.01	0.00
4. Food Preparation Backy	2810025000	374.8	3.26	0.45%	2.78	0.48	0.0	0	0.00%	0.00	0.00
5. Food Prep - Commercia	2302002000	642.7	1.76	0.24%	1.53	0.23	0.0	0	0.00%	0.00	0.00
6. Food Prep - Comm. Dee	2302003000	722.1	1.98	0.28%	1.72	0.26	0.0	0	0.00%	0.00	0.00
Total Other Fires and Cooking		2178.1	8.92	1.24%	7.58	1.33	69.1	0.31	0.04%	0.26	0.05
TOTAL COMBUSTION		70439.5	26.32	3.66%	22.52	3.79	34360.6	39.05	5.10%	33.84	5.21
TOTAL AREA SOURCE		159753.3	327.58	45.54%	281.99	45.50	34371.0	39.10	5.10%	33.88	5.22
ON-ROAD MOBILE		57185.5	151.89	21.12%	127.41	24.47	143367.6	453.05	59.12%	381.35	71.70
OFF-ROAD MOBILE											
OFF-HIGHWAY											
Aircraft -Logan	2275050000	206.5	0.57	0.08%	0.57		1294.7	3.55	0.46%	3.55	0.00
Aircraft -Others	2275050000	792.5	2.17	0.30%	1.73	0.44	1821.1	4.99	0.65%	1.65	3.34
1. Total Aircraft	2275050000	999.0	2.74	0.38%	2.30	0.44	3115.8	8.54	1.11%	5.19	3.34
2. Railroads	2285002000	309.8	0.85	0.12%	0.59	0.26	7154.0	19.60	2.56%	13.65	5.95
3. Commercial Marine Ves	2280020010	432.6	1.19	0.17%	1.19	0.00	2589.9	7.10	0.93%	7.10	0.00
Total Off-Highway		1741.4	4.8	0.66%	4.08	0.70	12859.7	35.2	4.60%	25.94	9.29
NONROAD MODEL EQUIPMENT											
1. Agricultural Equipment			0.25	0.03%				1.76	0.23%		
2. Airport Eq			0.06	0.01%				0.57	0.07%		
3. Commercial Eq			15.37	2.14%				9.12	1.19%		
4. Construction & Mining			7.83	1.09%				42.39	5.53%		
5. Industrial Equipment			8.71	1.21%				35.31	4.61%		
6. Lawn & Garden -Comm			53.68	7.46%				9.94	1.30%		
7. Lawn & Garden -Resid			34.74	4.83%				2.51	0.33%		
8. Logging Eq			0.26	0.04%				0.42	0.05%		
9. Pleasure Craft			84.73	11.78%				6.46	0.84%		
10. Railroad Eq			0.01	0.00%				0.02	0.00%		
11. Recreational Eq			13.45	1.87%				0.77	0.10%		
SUBTOTAL NON-ROAD		54835.8	219.09	30.46%	192.11	26.97	30046.7	109.27	14.26%	96.15	13.13
TOTAL OFF-ROAD MOBILE		56577.2	223.87	31.12%	196.19	27.67	42906.4	144.51	18.86%	122.09	22.42
TOTAL ANTHROPOGENI C EMISSIONS		279163	719.34	100.0%	619.22	100.01	266235	766.26	100.0%	653.96	112.30

TABLE 1.3 STATEWIDE 2002 CO, SO2, PM & NH3 EMISSIONS BY CATEGORIES TPY

VOCNOX2002 /CO-SO2-PM-NH3 Aug.22/2007									
	NAICS	CO TPY	CO TPSD	CO TPWD	SO2	PM10	PM2.5	NH3	
SOURCE CATEGORY									
STATIONARY POINT SOURCE									
Power Plants	221112	10086	27.71	27.71	91439.0	839.0	92.3		
Other Point Sources		2018	5.55	5.55	7618.0				
TOTAL POINT SOURCES		12104.0	33.3	33.3	99057.0	839.0	92.3	862.0	
AREA SOURCES									
Waste Treatment									
1. POTW's	2630020000							17.2	
Asphalt Roofing	2461023000	34.6	0.16	0.16	7.6	10.4	10.4		
Small Stationary Fuel Combustion									
1. Residential Coal	2104002000	0.6	0.0	0.0	39.0	37.5	3.8	0.0	
2. Residential D.Oil	2104004000	2316.9	2.3	11.8	19740.2	500.5	384.6	0.0	
3. Residential N.Gas	2104006000	2185.6	2.1	11.2	32.8	103.8	103.8	0.0	
4. Residential Wood-burning	2104008000	104462.0	16.7	836.4	194.0	13689.0	13689.0	753.0	
5. Residential Kerosene	2104011000	14.3	0.0	0.1	407.0	3.1	2.4	0.0	
6. Residential LPG	2104007000	117.2	0.1	0.6	6.2	24.7	0.0	0.0	
1. Commercial/Instit Coal	2103001000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2. Commercial/Instit D.Oil	2103004000	391.7	0.5	2.3	3336.9	84.6	65.0	0.0	
3. Commercial/Instit R.Oil	2103005000	3.1	0.0	0.0	28.2	3.2	1.2	0.0	
4. Commercial/Instit N.Gas	2103006000	2569.6	3.0	15.2	18.4	58.1	58.1	0.0	
5. Commercial/Instit Kerosene	2103011000	8.0	0.0	0.1	230.7	1.7	1.3	0.0	
6. Commercial/Instit LPG	2103007000	20.7	0.0	0.1	1.1	4.9	0.0	0.0	
7. Commercial/Instit Wood & Prod	2103081000	540.0	0.6	3.2	22.5	450.0	387.0	0.0	
1. Small Industrial Coal	2102001000	7.9	0.0	0.1	60.0	20.8	6.0	0.0	
2. Small Industrial D.Oil	2102004000	97.2	0.1	0.7	828.0	21.0	16.1	0.0	
3. Small Industrial R.Oil	2102005000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4. Small Industrial N.Gas	2102006000	6770.9	9.4	47.9	48.4	153.2	153.2	0.0	
5. Small Industrial Kerosene	2102011000	0.7	0.0	0.0	21.2	0.2	0.1	0.0	
6. Small Industrial LPG	2102001000	38.5	0.1	0.3	2.0	9.1	0.0	0.0	
7. Small Industrial Wood-Products	2102008000	12780.0	17.7	90.4	532.5	10650.0	9159.0	0.0	
1. Open Burning -M.Solid Waste	2610030000	16.3	0.0	0.0	0.2	3.6	3.3	0.0	
2. Open Burning -Brush Waste	2610000400	1284.1	1.0	2.8	15.2	181.0	139.5	11.6	
3. Open Burning -Leaf Burning	2610000100	69.1	0.0	0.0	0.5	13.6	13.6	0.8	
4. Open Burning -Yard Waste	2610004000	1048.9	0.8	2.3	12.4	147.8	114.0	9.4	
Wildfires: Forest/Brush	2810001000	2018.3	10.97	0.56		245.0	245.0	0.0	
Structural Fires	2810030000	414.2	0.98	1.41		74.6	74.6	0.0	
Vehicle Fires	2610000000	67.7	0.19	0.19		54.1	54.1	0.0	
TOTAL COMBUSTION		134743.3	54.4	1025.6	25577.4	26535.1	24674.7	774.8	
Agricultural & Misc Activities CMU									
Agricultural Tilling	2801000003					1232.6	246.5	0.0	
Dairy Cattle								1037.5	
Beef Cattle								95.6	
Swine								70.2	
Poultry	2805005000							158.2	
Horses								209.2	
Sheep								33.6	
Goats								42.1	
Geese								1.4	
Ducks								5.5	
Humans								3115.8	
Cats								1228.9	
Dogs								3415.1	
Bears								6.0	
Deer								450.3	
Misc Animals								148.8	
Fertilizers								411.1	
Soils								5654.6	
TOTAL AREA SOURCE		137278.1	66.7	1027.9	25585.0	27778.1	24931.6	16875.9	
ON-ROAD MOBILE									
ON-ROAD MOBILE		1039100.0	2162.7	3347.3	4398.8	3407.5	2409.9	5499.1	
OFF-ROAD MOBILE									
OFF-HIGHWAY									
Aircraft	2275050000	12024.1	32.94	32.94	251.0	163.8	150.7	0.0	
Railroads	2285002000	727.5	2.00	2.00	589.8	181.6	142.4	0.0	
Commercial Marine Vessels	2280020010	1231.3	3.37	3.37	489.2	217.0	199.7	0.0	
SUBTOTAL OFF-HIGHWAY		13982.9	38.31	38.31	1330.0	562.4	492.8	0.0	
NONROAD MODEL EQUIPMENT									
1. Agricultural Equipment			1.9	0.2					
2. Airport Eq			0.6	0.6					
3. Commercial Eq			307.8	294.6					
4. Construction & Mining			61.1	37.5					
5. Industrial Equipment			137.1	92.2					
6. Lawn & Garden -Comm			809.9	164.9					
7. Lawn & Garden -Resid			360.6	65.3					
8. Logging Eq			1.6	1.6					
9. Pleasure Craft			167.6	2.3					
10. Railroad Eq			0.1	0.1					
11. Recreational Eq			99.0	72.7					
SUBTOTAL NON-ROAD MODEL EQ		448398.7	1947.3	732.0	2428.1	2887.2	2658.8	28.2	
TOTAL OFF-ROAD MOBILE		462381.6	1985.6	770.3	3758.1	3449.6	3151.6	28.2	
FUGITIVE DUST PM CATEGORIES									
1. Residential Construction	2311010000					672.7	67.3		
2. Non-Residential Construction	2311020001					18649.0	1864.9		
3. Road Construction	2311030000					5984.4	598.4		
4. Mining	2325000000					201.8	20.2		
5. Paved Roads (MANEVU)	2294000000					38234.5	5735.2		
6. Unpaved Roads (MANEVU)	2296000000					99848.5	9984.8		
TOTAL FUGITIVE DUST						163590.9	18270.8		
GRAND TOTAL EMISSIONS		1,650,864	4,248.3	5,178.8	132,799	199,065	48,856	23,265	
			22						

FIGURE 1.2

VOC 2002 ANTHROPOGENIC EMISSIONS (719 TPSD)

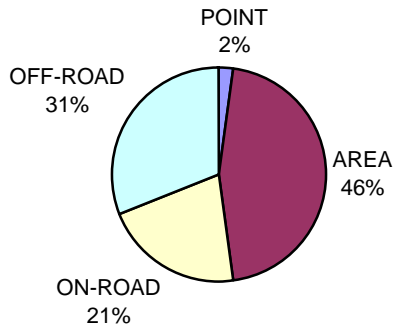


FIGURE 1.4

FIGURE 1.3

VOC 2002 EMISSIONS WITH BIOGENICS (1,510 TPSD)

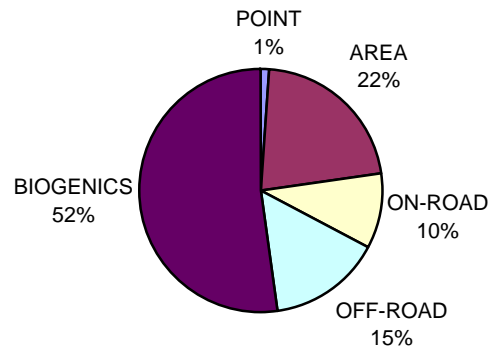


FIGURE 1.5

NOx 2002 ANTHROPOGENIC EMISSIONS (766 TPSD)

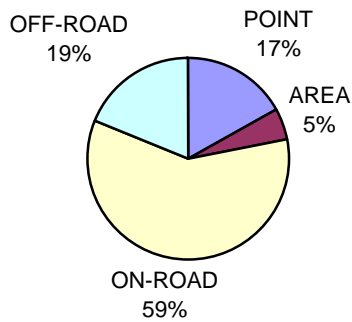


FIGURE 1.6

CO 2002 ANTHROPOGENIC EMISSIONS (4,248 TPSD)

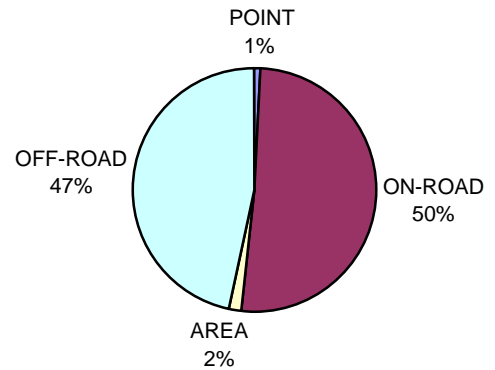
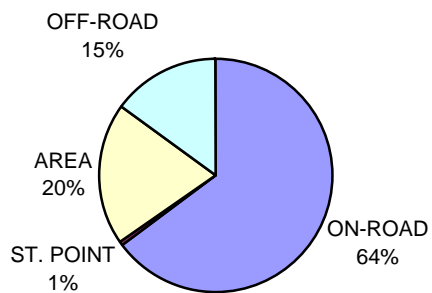


FIGURE 1.7

CO 2002 EMISSIONS (5,179 TPWD)



SO2 2002 EMISSIONS (132,799 TPY)

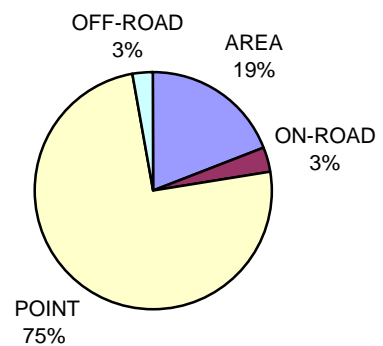


FIGURE 1.8

NH3 EMISSIONS (23,265 TPY)

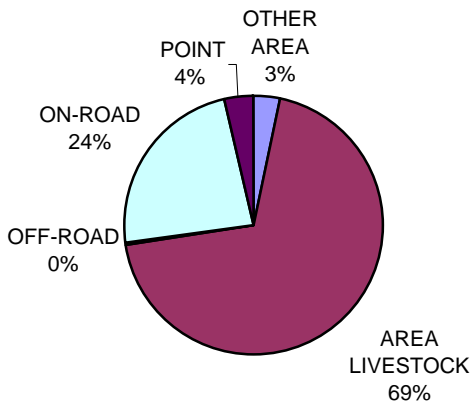


FIGURE 1.9

PM10 2002 EMISSIONS (199,065 TPY)

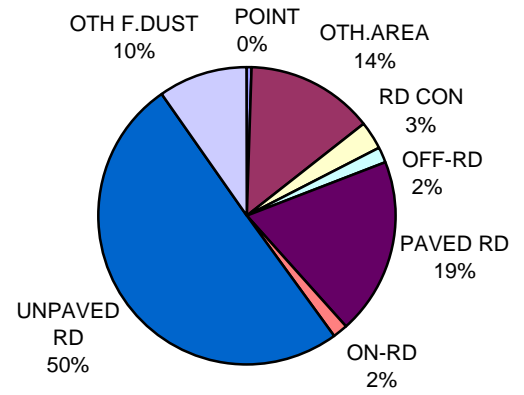
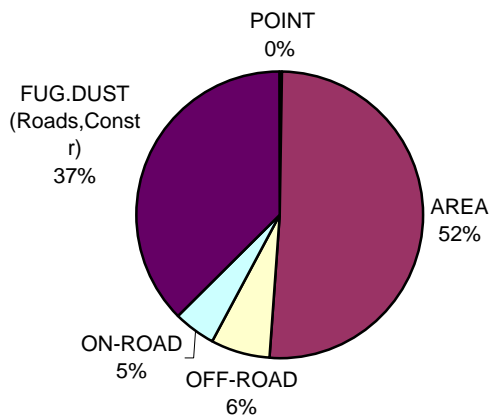


FIGURE 1.10

PM2.5 2002 EMISSIONS (48,856 TPY)



TOP TEN EMISSION CATEGORIES 2002 VOC & NOx

Tons per Summer Day

KS/inv2002/topten02VN sep21/2007

VOC CATEGORY

		<u>TPSD</u>	<u>Percent</u>
1	On-Road On-Road Mobile	151.9	27.5%
2	Off-Road Lawn&G -res&com	88.4	16.0%
3	Off-Road Pleasure Craft	84.7	15.3%
4	Area Consum/Com Solve	62.2	11.3%
5	Area Indust S.Coat	56.0	10.1%
6	Area Arch Coating	42.1	7.6%
7	Area Degreasing	32.6	5.9%
8	Area Portable Fuel C	18.1	3.3%
9	Point Point Sources	16.0	2.9%
10	Off-Road Comm.Equip	15.4	2.8%
TOP TEN TOTAL		552	76.8%
ALL CATEGORIES TOTAL		719	

NOx CATEGORY

		<u>TPSD</u>	<u>Percent</u>
1	On-Road On-Road Mobile	453.1	62.8%
2	Point Power Plants	89.4	11.5%
3	Point Other Point	46.8	5.9%
4	Off-Road Construction Eq	42.4	6.5%
5	Off-Road Industrial Eq	35.3	4.9%
6	Off-Road Rail	19.6	2.7%
7	Off-Road Lawn&G -res&com	12.5	1.7%
8	Area Indus N.Gas	11.2	1.6%
9	Off-Road Comm.Equip	9.1	1.3%
10	Off-Road Aircraft	8.5	1.2%
TOP TEN TOTAL		728	94.2%
ALL CATEGORIES TOTAL		766	

NOx CATEGORY

		<u>TPSD</u>	<u>Percent</u>
1	On-Road On-Road Mobile	453.1	52.1%
5	Off-Road Industrial Eq	35.3	4.1%
6	Off-Road Rail	19.6	2.3%
7	Off-Road Lawn&G -res&com	12.5	1.4%
3	Point Power Plants	89.4	10.3%
8	Area Indus N.Gas	11.2	1.3%
4	Point Other Point	46.8	4.7%
2	Off-Road Construction Eq	42.4	4.9%
9	Off-Road Commercial Eq	9.1	1.0%
10	Off-Road Aircraft	9.0	1.0%
TOP TEN TOTAL		728	79.3%
ALL CATEGORIES TOTAL		766	

FIGURE 1.11 VOC 2002 TOP TEN CATEGORIES TPSD

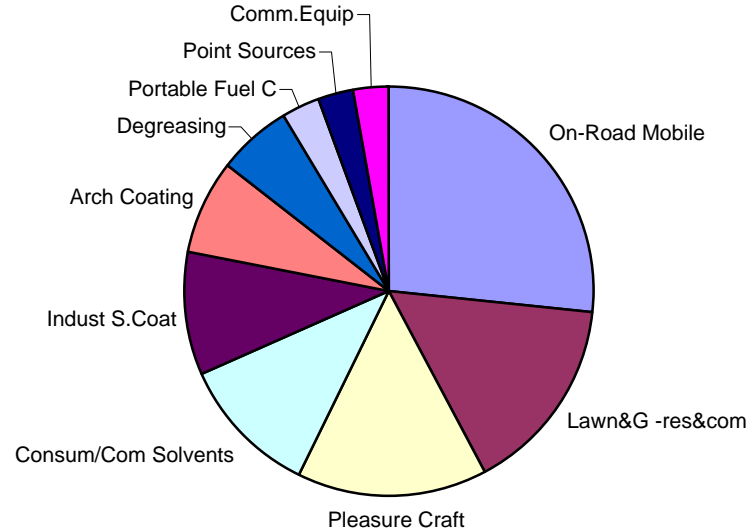


FIGURE 1.12 NOx 2002 TOP TEN CATEGORIES TPSD

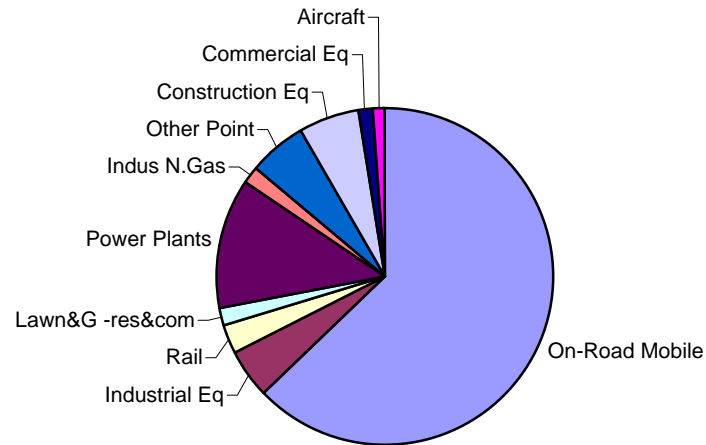


TABLE 1.5 TOP 10 CATEGORIES VOC & NOx COMBINED 2002

ks/inv2002/ topteno2vn/sep21/2007

		Tons Per Summer Day			
		<u>VOC & NOx</u>		<u>VOC</u>	<u>NOx</u>
		<u>TOTAL</u>	<u>Percent</u>		
1	On-Road On-Road Mobile	605.0	51%	151.9	453.1
2	Off-Road Lawn & G res & con	100.9	8%	88.4	12.5
3	Off-Road Pleasure craft	91.2	8%	84.7	6.5
4	Point Power Plants	84.3	7%	1.5	82.8
5	Area Consum/Com Solve	62.0	5%	62.0	0.0
6	Point Oth.Point	61.3	5%	14.5	46.8
7	Area Indus S.Coat	56.0	5%	56.0	0.0
8	Off-Road Construct Eq	50.2	4%	7.8	42.4
9	Off-Road Indust Equip	44.0	4%	8.7	35.3
10	Area Architectural Coat	42.0	4%	42.0	0.0
TOTAL TOP 10 VOC & NOX		1,196.9	100%	517.5	679.4
TOTAL ALL VOC & NOX		1,475.0	81%		

FIGURE 1.13 TOP TEN CATEGORIES VOC & NOx COMBINED 2002

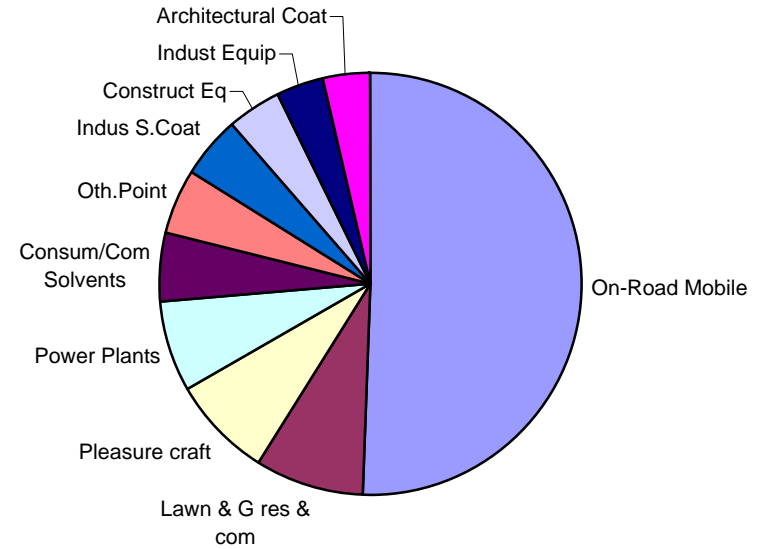


TABLE 1.6

1990 TO 2002 VOC, NO_x, CO & SO₂ EMISSIONS TRENDS

Tons per Summer Day (TPSD) for VOC, NO_x & CO, Tons Per Year (TPY) for SO₂

vocnox2002/sum9002trend Aug.22/2007 (VOC 1990-99 adj PFC, asphalt & degreasing,Adhesives)

<u>VOC TPSD</u>	(See Figure 1.11)					Emissions	
	1990	1993	1996	1999	2002	%Change 1990-2002	Change 1990-2002
POINT	64	61	43	28	16	-75%	-48
AREA	398	360	321	325	328	-18%	-70
MOBILE6.2	357	308	258	217	152	-57%	-205
OFF-ROAD	249	280	278	240	224	-10%	-25
TOTAL	1,068	1,009	900	810	719	-33%	-349

<u>NO_x TPSD</u>	(See Figure 1.12)					Emissions	
	1990	1993	1996	1999	2002	%Change 1990-2002	Change 1990-2002
POINT	318	298	171	180	130	-59%	-188
AREA	33	36	46	33	39	19%	6
MOBILE6.2	451	500	549	545	453	0%	2
OFF-ROAD	109	131	128	146	145	33%	36
TOTAL	911	965	894	904	766	-16%	-145

<u>CO TPSD</u>	(See Figure 1.13)					Emissions	
	1990	1993	1996	1999	2002	%Change 1990-2002	Change 1990-2002
POINT	40	29	40	35	33	-17%	-7
AREA	53	48	62	57	67	26%	14
MOBILE6.2	4,712	3,496	3,209	2891	2163	-54%	-2549
OFF-ROAD	1,652	1,815	1,941	1896	1986	20%	334
TOTAL	6,457	5,388	5,252	4880	4248	-34%	-2209

<u>SO₂ TPY</u>	(See Figure 1.14)					Emissions	
	1990	1993	1996	1999	2002	%Change 1990-2002	Change 1990-2002
POINT	272,419	210,610	125,373	161,459	99,057	-64%	-173362
AREA	80,305	81,652	76,966	64,888	25,585	-68%	-54720
MOBILE6.2	10,514	10,608	12,116	12,770	4,399	-58%	-6115
OFF-ROAD	4,658	4,943	5,284	5,740	3,758	-19%	-900
TOTAL TPY	367,896	307,813	219,739	244,857	132,799	-64%	-235097
TOTAL TPD	1007.9	843.3	602.0	670.8	363.8		

FIGURE 1.14

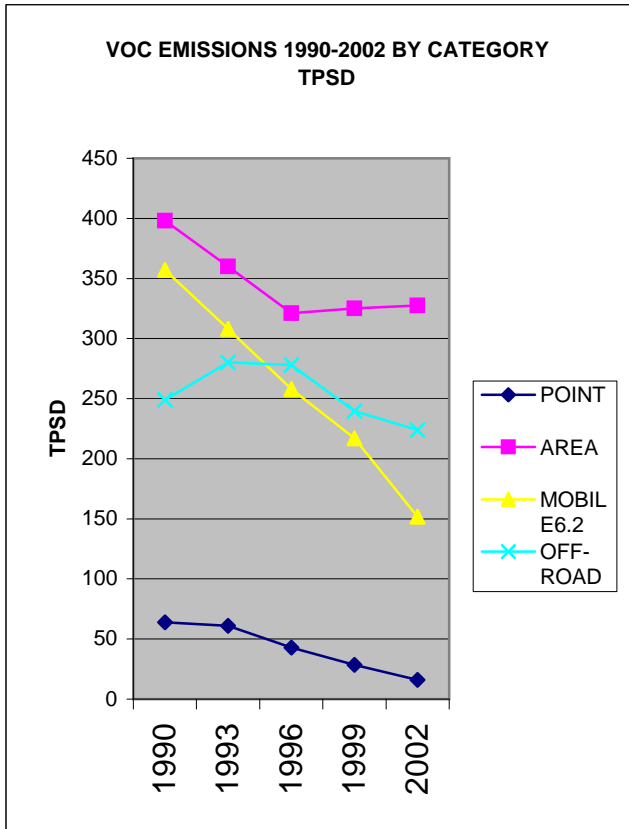


FIGURE 1.16

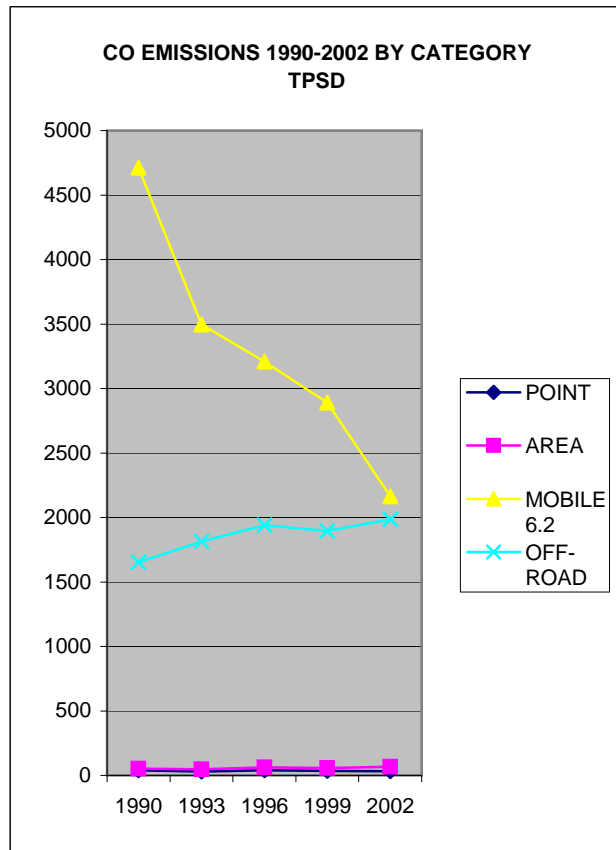


FIGURE 1.15

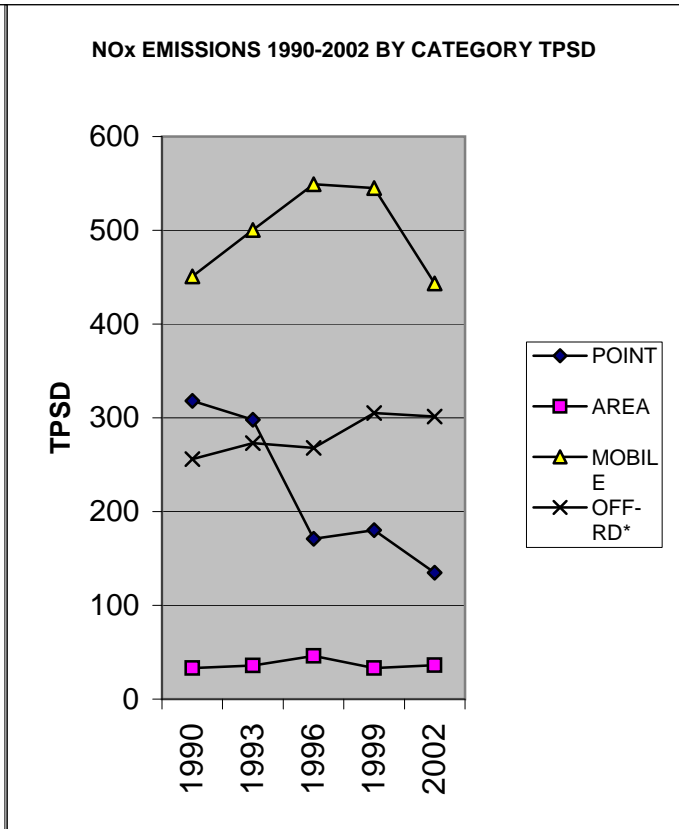


FIGURE 1.17

