

**Emissions Inventories Summary - Washington, DC-MD-VA 8-Hour Ozone NAA**  
**Draft 8-Hour Ozone SIP (February 27, 2007)**

	VOC (tpd)					NOx (tpd)				
	2002	2008 Uncontrolled	2008 Controlled	2009 Uncontrolled	2009 Controlled	2002	2008 Uncontrolled	2008 Controlled	2009 Uncontrolled	2009 Controlled
<b>Point</b>	12.91	13.99	13.98	14.40	14.31	220.60	241.60	231.66	241.79	115.10
<b>Area</b>	195.43	213.73	187.20	217.33	184.31	24.25	26.93	26.93	27.39	27.39
<b>Non-road Model <sup>(1)</sup></b>	123.56	126.75	89.84	128.37	85.93	74.19	76.58	64.89	77.58	62.81
<b>Non-road Source <sup>(2)</sup></b>	1.93	2.48	2.43	2.58	2.52	11.47	14.52	11.98	15.00	12.26
<b>Total Non-road <sup>(1+2)</sup></b>	125.49	129.23	92.27	130.94	88.45	85.66	91.10	76.88	92.57	75.07
<b>On-road</b>	116.92	77.17	70.98	73.85	66.67	266.66	189.97	160.30	184.16	146.54
<b>Total</b>	<b>450.75</b>	<b>434.13</b>	<b>364.42</b>	<b>436.52</b>	<b>353.73</b>	<b>597.17</b>	<b>549.59</b>	<b>495.77</b>	<b>545.92</b>	<b>364.10</b>

**Notes:**

- \* Point Source emissions - Includes Maryland's quasi-point source emissions from Andrews AFB.
- \* Area Source emissions - Projected 2008 and 2009 controlled inventories were created by growing base year 2002 emissions using cooperative forecast 7.0 and applying appropriate controls.
- \* Nonroad Mobile emissions - Nonroad model inventories were created using NONROAD2005 model. Nonroad source inventories include airport (except aircraft refueling), commercial diesel marine vessels, and locomotive emissions.
- \* On-road Mobile emissions - 2002 inventory was created using 2002 I/M Programs, Registration data, Diesel Sales Fraction, and NOx Rebuild Effect value. 2008 and 2009 inventories were created using 2008/09 I/M Programs, 2005 Registration data and 2008/09 Diesel Sales Fractions. 2008 and 2009 inventories included 2002 NOx Rebuild Effect values for DC (11%) and Virginia (25%) and 2008/09 values for Maryland (90%). All onroad inventories included hourly meteorological parameters and new Rural Local Road modeling methodology.
- \* "Uncontrolled" inventories include post-2002 growth, but no post-2002 controls.
- \* 2008 and 2009 Controlled emissions do not include 2.54 tpd and 3.17 tpd of VOC credits respectively for the District of Columbia's OTC VOC rules.

**Emissions Inventories Summary - By States**  
**Draft 8-Hour Ozone SIP (February 27, 2007)**

**District of Columbia**

**VOC (tpd)**

	2002	2008 Uncontrolled	2008 Controlled	2009 Uncontrolled	2009 Controlled
Point	0.24	0.26	0.24	0.26	0.24
Area	16.81	17.40	17.40	17.57	17.57
Non-road Model <sup>(1)</sup>	8.86	8.50	7.01	8.52	6.75
Non-road Source <sup>(2)</sup>	0.05	0.06	0.05	0.06	0.05
Total Non-road <sup>(1+2)</sup>	8.91	8.56	7.06	8.58	6.80
On-road	13.09	7.99	7.47	7.52	6.88
<b>Total</b>	<b>39.04</b>	<b>34.21</b>	<b>32.18</b>	<b>33.93</b>	<b>31.49</b>

**NOx (tpd)**

	2002	2008 Uncontrolled	2008 Controlled	2009 Uncontrolled	2009 Controlled
	4.89	8.12	3.11	7.54	1.99
	2.16	2.24	2.24	2.26	2.26
	9.73	9.87	8.51	9.98	8.22
	0.81	0.84	0.58	0.84	0.57
	10.54	10.71	9.09	10.82	8.79
	23.70	17.36	15.25	16.89	14.16
<b>Total</b>	<b>41.29</b>	<b>38.43</b>	<b>29.69</b>	<b>37.52</b>	<b>27.20</b>

**Maryland**

**VOC (tpd)**

	2002	2008 Uncontrolled	2008 Controlled	2009 Uncontrolled	2009 Controlled
Point <sup>(1)</sup>	3.71	4.36	4.36	4.33	4.33
Quasi-Point <sup>(2)</sup>	0.89	0.98	0.98	1.00	1.00
Total Point <sup>(1+2)</sup>	4.60	5.34	5.34	5.33	5.33
Area	92.49	99.57	85.07	101.01	82.95
Non-road Model <sup>(1)</sup>	63.36	64.73	46.99	65.44	44.94
Non-road Source <sup>(2)</sup>	0.46	0.54	0.52	0.55	0.53
Total Non-road <sup>(1+2)</sup>	63.82	65.27	47.50	66.00	45.47
On-road	56.13	36.56	33.86	34.97	31.64
<b>Total</b>	<b>217.03</b>	<b>206.74</b>	<b>171.77</b>	<b>207.31</b>	<b>165.39</b>

**NOx (tpd)**

	2002	2008 Uncontrolled	2008 Controlled	2009 Uncontrolled	2009 Controlled
	153.77	174.70	174.70	174.60	69.93
	2.01	2.21	2.21	2.25	2.25
	155.78	176.91	176.91	176.85	72.18
	6.77	7.11	7.11	7.17	7.17
	30.80	32.11	27.12	32.54	26.26
	3.41	4.03	3.01	4.12	3.02
	34.21	36.14	30.13	36.66	29.28
	132.27	92.51	77.85	89.74	70.94
<b>Total</b>	<b>329.03</b>	<b>312.67</b>	<b>292.01</b>	<b>310.41</b>	<b>179.57</b>

**Virginia**

**VOC (tpd)**

	2002	2008 Uncontrolled	2008 Controlled	2009 Uncontrolled	2009 Controlled
Point	8.07	8.40	8.40	8.81	8.72
Area	86.13	96.76	84.72	98.74	83.79
Non-road Model <sup>(1)</sup>	51.35	53.52	35.85	54.40	34.24
Non-road Source <sup>(2)</sup>	1.42	1.88	1.86	1.97	1.94
Total Non-road <sup>(1+2)</sup>	52.77	55.40	37.71	56.37	36.18
On-road	47.71	32.62	29.65	31.36	28.15
<b>Total</b>	<b>194.68</b>	<b>193.18</b>	<b>160.48</b>	<b>195.28</b>	<b>156.84</b>

**NOx (tpd)**

	2002	2008 Uncontrolled	2008 Controlled	2009 Uncontrolled	2009 Controlled
	59.93	56.57	49.34	57.40	38.42
	15.32	17.58	17.58	17.96	17.96
	33.65	34.59	29.26	35.06	28.33
	7.26	9.66	8.39	10.03	8.66
	40.91	44.25	37.65	45.09	37.00
	110.68	80.10	67.20	77.53	61.44
<b>Total</b>	<b>226.84</b>	<b>198.50</b>	<b>171.77</b>	<b>197.99</b>	<b>154.82</b>

Note: Controlled emissions for the District of Columbia do not include 2.54 tpd and 3.17 tpd of VOC credits for 2008 and 2009 respectively for OTC VOC rules.

## **Updates in the next version of 8-Hour Washington region SIP and BY 2002 EI Document**

### **1) Point Source –**

- a. District of Columbia's point source inventory will be updated for controlled 2008 and 2009 inventories. This change will also be reflected in Appendix C (List of point sources by states), chapter 4 (projected future year inventories), and chapter 5 (RFP).
- b. Maryland's quasi-point source inventory will be added to the Appendix E.

### **2) Nonroad Source –**

Nonroad model emissions (by nonroad equipment types) will be added to the Appendix D (Area & Nonroad source inventory)

### **3) BY 2002 Emission Inventory Document for 8-Hour Washington region SIP submitted to EPA in June 2006 –**

- a. Portable Fuel Container emissions for Virginia will be changed in line with Virginia's adoption of the new EPA PFC calculation methodology.
- b. A new appendix (Appendix B5) describing MACTEC's methodology for allocating EPA's total Virginia state PFC emissions to Northern Virginia counties will be added.
- c. Appendix C (Area & Nonroad source inventory) will be updated to reflect new PFC emissions for Virginia and also to provide separate area and nonroad sources totals there. Nonroad model emissions (by nonroad equipment types) will be added to the Appendix.
- d. Sum total in the Table in the section 3.4.8.3 (Nonroad model emissions) will be corrected.
- e. Table 1-1 (Emissions summary for point, area, onroad, and nonroad sources) will be updated.
- f. Table 13 (Appendix D, page 15) listing fuel RVP values for states will be corrected.