

ITEM 13 - Information

March 19, 2003

Update on Mobile Source Emissions Requirements for the Region's State Implementation Plan (SIP), CLRP and TIP Process, and on Transportation Emissions Reduction Measures (TERMs)

Staff

Recommendation: Receive update on

- the mobile source emissions requirements for the Washington region SIP update, CLRP and TIP development process;
- the implications of draft Round 6.3 Cooperative Forecasts on this process; and
- the analysis of the adopted and potential TERMS for the 2003 CLRP and FY 2004-2009 TIP.

Issues: None

Background: At the January 15 and February 19 meetings, the Board was briefed on the mobile source emissions requirements for the SIP update as prescribed in the in the Environmental Protection Agency (EPA) proposed rule published in the November 13, 2002 *Federal Register*, and on the status of the analysis of the adopted and potential TERMS.



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Fairfax County
Falls Church
Loudoun County
Manassas
Prince William County*

MEMORANDUM

Date: March 13, 2003

To: Transportation Planning Board

From: Ronald F. Kirby,
Director, Department of
Transportation Planning

Re: Update on Mobile Emissions Requirements for the
Region's State Implementation Plans (SIPs), CLRP
And TIP Process, and Transportation Emissions
Reduction Measures (TERMs)

At its January 15, 2003 and February 19, 2003 meetings the Board was briefed on a number of key issues and requirements associated with the new severe area SIP materials to be submitted to EPA in July of 2003, and with the 2003 CLRP and FY2004-2009 TIP scheduled for approval by the Board in October of 2003. This memorandum provides an update on these issues, and includes as attachments new information regarding the Round 6.3 Forecasts and the analysis of adopted and potential TERMS for the 2003 CLRP and the FY2004-2009 TIP.

(1) Transportation Control Measures (TCMs)

At the January 15, 2003 and February 19, 2003 meetings, staff noted that TCMs have a special status in the transportation conformity process in that in order to make a conformity determination the TPB must find that the CLRP and/or TIP "provides for timely completion or implementation of all TCMs in the applicable implementation plan." An ineffective TCM included in the SIP could preclude the TPB from making a conformity determination even if all other SIP and conformity requirements are met. By comparison, if a Transportation Emissions Reduction Measure (TERM) does not perform as expected the TPB can substitute a more effective TERM through the CLRP or TIP update process.

It is therefore recommended that in the development of the current severe area SIP materials:

- (a) TERMS should only be "hard-wired" into the new SIP as TCMs if it is absolutely certain that they will be implemented as specified; and

(b) Any TCMs adopted in earlier SIPs should be reviewed and updated as needed in the new SIP.

(2) Reasonably Available Control Measures (RACM)

The July 2, 2002 decision by the United States Court of Appeals for the District of Columbia upheld as valid EPA's position that the state may "reject measures as not being RACM if they would not advance the attainment date, would cause substantially widespread and long-term adverse impacts, or would be economically or technologically unfeasible."

(3) Round 6.3 versus Round 6.2 Cooperative Forecasts

To date all of the emissions estimates for the severe area SIPs have been prepared using the Round 6.2 Cooperative Forecasts. However, the 2003 CLRP and FY2004-2009 TIP will use the new Round 6.3 forecasts. At its March 12, 2003 meeting, COG's Metropolitan Development Policy Committee (MDPC) approved the jurisdictional totals for these new Round 6.3 forecasts for use by the TPB in the air quality conformity analyses for the 2003 CLRP and FY 2004-2009 TIP. (These jurisdictional totals are provided as Attachment A to this memorandum). The traffic analysis zone (TAZ) level data for these Round 6.3 forecasts are expected to be available within the next month. The COG Board of Directors is scheduling to approve these Round 6.3 forecasts concurrent with the completion of the TPB's air quality conformity analysis for the 2003 CLRP and FY2004-2009 TIP later this year.

In order to assess the implications of these new Round 6.3 forecasts for mobile emissions, COG/TPB staff is currently conducting a "sensitivity analysis" for the attainment year 2005. Careful consideration should be given to the results of this sensitivity analysis in the development of mobile emissions budgets for the severe area SIP materials to be submitted to EPA in July of 2003.

(4) Update on Transportation Emissions Reduction Measures (TERMs)

Because EPA's new Mobile 6 model produces significantly different emissions estimates than the previous Mobile 5b model, the VOC and NO_x impacts of all of the Transportation Emission Reduction Measures (TERMs) implemented or under consideration by the TPB have had to be updated. These updated emissions estimates are provided for previously implemented TERMS in Attachment B and for potential new TERMS in Attachment C.

The TERMS were grouped into four categories: Traffic Stream, Commute, Heavy Duty Vehicles, and Specific Vehicle Type. TERMS that fall into the Traffic Stream and Commute Categories were updated using a ratio of emissions generated by a trip under Mobile 5b conditions and under Mobile 6 conditions. For the Heavy Duty Vehicle and Specific Vehicle categories (such as CNG buses replacing diesel buses) the emission benefits were estimated using vehicle manufacturer certified numbers.

The ratios used to update the Traffic Stream and Commute categories are shown in the following table. The effectiveness of Traffic Stream TERMS in reducing NOx in 2005 increases under Mobile 6, but the effectiveness of these measures decreases for VOC in 2005 and for both VOC and NOx in 2030. The effectiveness of Commute TERMS decreases for both VOC and NOx in 2005 and in 2030 under Mobile 6.

Scaling factors of Commute Vehicle TERMS and Traffic Stream TERMS
 (Mobile 6/Mobile 5)

Commute TERMS				Traffic Stream TERMS			
2005		2030		2005		2030	
VOC	NOx	VOC	NOx	VOC	NOx	VOC	NOx
0.924	0.860	0.387	0.295	0.919	1.513	0.392	0.341

**Memorandum**

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Fairfax
Fairfax County
Falls Church
Loudoun County
Manassas
Prince William County*

Date: March 13, 2003
To: Cooperative Forecast Data Users
From: Paul DesJardin
Department of Human Services,
Planning and Public Safety
Subject: Draft Round 6.3 Cooperative Forecasts

On March 12, 2003 the Metropolitan Development Policy Committee (MDPC) approved the draft Round 6.3 Cooperative Forecasts (attached) for use by the National Capital Region Transportation Planning Board (TPB) staff in the Air Quality Conformity Analysis of the FY04-09 Transportation Improvement Program (TIP) and 2003 financially Constrained Long Range Plan (CLRP).

Based upon the results of this modeling work, the draft Round 6.3 Forecasts may be subject to revision. The COG Board is scheduled to approve the Round 6.3 Cooperative Forecasts during their September 10, 2003 meeting, after which zone-level (TAZ) data files will be released.

**Summary of Intermediate Employment Forecasts
Round 6.3 Cooperative Forecasts
(Thousands)**

Draft

JURISDICTION	1990	1995	2000	2005	2010	2015	2020	2025	2030	2000 to 2030		Regional Share
										Number	% Change	
District of Columbia	747.3	701.9	678.0	720.4	752.0	783.7	807.1	831.2	831.2	153.2	22.6%	11.7%
Arlington County	183.1	195.8	201.7	209.7	236.0	255.0	274.1	293.2	301.9	100.2	49.7%	7.7%
City of Alexandria	93.2	91.9	98.6	104.1	120.7	128.3	137.0	141.9	148.1	49.5	50.3%	3.8%
Central Jurisdictions	1,023.6	989.6	978.3	1,034.2	1,108.7	1,167.0	1,218.2	1,266.3	1,281.2	302.9	31.0%	23.2%
Montgomery County (1)	466.0	462.5	545.0	585.0	630.0	660.0	680.0	695.0	705.0	160.0	29.4%	12.2%
Rockville (2)	56.9	62.7	68.7	80.6	92.8	98.3	101.3	102.4	103.5	34.8	50.7%	2.7%
Prince George's County	310.4	301.3	327.5	357.9	399.9	426.4	465.0	516.8	550.0	222.5	67.9%	17.0%
Fairfax County (3)	403.7	459.6	532.8	595.0	653.2	678.4	708.5	736.5	758.9	226.1	42.4%	17.3%
City of Fairfax	26.9	29.7	30.8	32.7	34.8	34.8	34.8	34.8	34.8	4.0	12.9%	0.3%
City of Falls Church	9.2	9.3	9.4	9.5	10.0	10.3	10.5	10.6	10.7	1.3	13.8%	0.1%
Inner Suburbs	1,216.1	1,262.4	1,445.5	1,580.1	1,727.9	1,809.9	1,898.8	1,993.7	2,059.4	613.9	42.5%	46.9%
Loudoun County	39.3	53.2	87.0	109.9	137.1	166.2	195.3	224.0	253.6	166.6	191.5%	12.7%
Prince William County	68.8	78.0	91.6	106.3	124.0	139.4	152.8	164.4	173.5	81.9	89.4%	6.3%
City of Manassas	17.2	18.5	19.9	20.7	21.4	21.7	21.9	21.9	21.9	2.0	10.1%	0.2%
City of Manassas Park	2.3	2.5	2.7	3.0	4.7	4.9	5.1	5.2	5.2	2.5	92.6%	0.2%
Calvert County (4)	18.1	21.5	25.9	29.4	32.9	33.7	34.5	35.1	35.6	9.7	37.5%	0.7%
Charles County (4)	38.7	44.6	50.1	56.5	62.9	64.8	66.8	67.9	69.1	19.0	37.9%	1.5%
Frederick County	54.0	68.0	99.7	109.2	120.7	134.6	148.5	162.5	177.8	78.1	78.3%	6.0%
Stafford County (5)	11.0	13.9	23.1	29.0	34.9	39.9	44.8	49.6	54.4	31.3	135.5%	2.4%
Anne Arundel County (6)	249.4	258.3	297.0	323.9	338.6	356.6	376.0	392.3	404.1	107.1	36.1%	n/a
Howard County (6)	106.3	123.6	160.0	180.0	200.0	215.0	230.0	245.0	249.9	89.9	56.2%	n/a
Outer Suburbs (6)	249.4	300.2	400.0	464.0	538.6	605.2	669.7	730.6	791.1	391.1	97.8%	29.9%
Northern Virginia	854.7	952.4	1,097.6	1,219.9	1,376.8	1,478.9	1,584.8	1,682.1	1,763.0	665.4	60.6%	50.9%
Suburban Maryland (6)	887.1	897.9	1,048.2	1,138.0	1,246.4	1,319.5	1,394.8	1,477.3	1,537.5	489.3	46.7%	37.4%
REGIONAL TOTAL (6)	2,489.1	2,552.2	2,823.8	3,078.3	3,375.2	3,582.1	3,786.7	3,990.6	4,131.7	1,307.9	46.3%	100.0%

(1) Forecasts for years 2000 to 2030 include all of Takoma Park.

(2) Included in Montgomery County total.

(3) Totals for all years include Fairfax County Government employees working in the Massey Complex.

(4) Tri-County Council for Southern Maryland develops ten-year incremental population, housing unit and employment forecasts

for Calvert County, Charles County and St. Mary's County. Forecasts for 2005, 2015 and 2025 in Calvert County and Charles County were made by the Metropolitan Washington Council of Governments.

(5) Source: Rappahanoek Area Development Commission (RADCO), January 2003.

(6) Baltimore Metropolitan Council (BMC) Round 6 Forecasts (2000 to 2025) for Anne Arundel and Howard counties are shown for reference purposes only and are not included in any other totals. Howard County and Anne Arundel County provided 2000 to 2025 projections and the Metropolitan Washington Council of Governments extrapolated their data to 2030. The official forecasts for Anne Arundel County for 2030 will not be available until January 2004.

**Summary of Intermediate Population Forecasts
Round 6.3 Cooperative Forecasts
(Thousands)**

Draft

JURISDICTION	1990	1995	2000	2005	2010	2015	2020	2025	2030	2000 to 2030		Regional Share
										Number	% Change	
District of Columbia (1)	606.9	554.3	572.1	607.0	627.0	673.7	688.1	702.4	702.4	130.3	22.8%	8.4%
Arlington County	170.9	187.9	189.5	197.4	202.5	209.1	215.5	219.5	221.9	32.4	17.1%	2.1%
City of Alexandria	111.2	117.3	128.3	136.5	142.9	145.9	147.8	150.0	151.7	23.4	18.2%	1.5%
Central Jurisdictions	889.0	859.4	889.9	940.9	972.4	1,028.7	1,051.4	1,071.9	1,076.0	186.1	20.9%	12.0%
Montgomery County (2)	757.0	810.0	873.3	925.0	975.0	1,020.0	1,050.0	1,070.0	1,080.0	206.7	23.7%	13.3%
Rockville (3)	44.8	47.0	47.4	53.7	60.4	62.8	63.3	63.5	64.4	17.0	35.9%	1.1%
Prince George's County	729.3	767.0	808.0	856.6	881.1	907.7	932.3	952.1	967.8	159.8	19.8%	10.3%
Fairfax County (4)	818.6	879.4	969.8	1,046.9	1,116.1	1,151.8	1,176.6	1,189.4	1,199.4	229.6	23.7%	14.8%
City of Fairfax	19.6	20.4	21.4	22.4	23.0	23.3	23.6	23.4	23.2	1.8	8.4%	0.1%
City of Falls Church	9.6	10.0	10.4	10.6	11.3	11.6	11.9	12.1	12.2	1.8	17.3%	0.1%
Inner Suburbs	2,334.1	2,486.8	2,682.9	2,861.5	3,006.5	3,114.4	3,194.4	3,247.0	3,282.6	599.7	22.4%	38.7%
Loudoun County	86.1	112.8	169.6	239.3	300.4	351.2	393.7	423.0	441.9	272.3	160.6%	17.6%
Prince William County	215.7	249.9	280.8	339.9	376.2	400.6	414.8	425.9	433.1	152.3	54.2%	9.8%
City of Manassas	28.0	32.0	35.7	36.7	37.5	37.6	37.7	37.9	38.1	2.4	6.7%	0.2%
City of Manassas Park	6.7	7.6	10.3	14.8	15.3	15.5	15.7	15.7	15.8	5.5	53.4%	0.4%
Calvert County (5)	51.4	63.9	74.6	80.6	86.6	91.1	95.6	100.0	104.4	29.8	39.9%	1.9%
Charles County (5)	101.2	111.1	120.6	134.0	147.4	165.2	183.0	194.0	205.0	84.4	70.0%	5.4%
Frederick County	150.2	174.2	195.3	216.6	238.3	260.0	281.9	299.6	324.6	129.3	66.2%	8.3%
Stafford County (6)	61.2	80.2	92.5	110.2	127.9	141.3	154.7	167.5	180.4	87.9	95.0%	5.7%
Anne Arundel County (7)	427.2	459.7	489.7	520.2	534.1	543.7	553.2	562.9	572.2	82.5	16.8%	n/a
Howard County (7)	187.3	220.0	250.8	273.3	291.7	304.0	312.6	308.9	304.9	54.1	21.6%	n/a
Outer Suburbs (7)	700.5	831.8	979.4	1,172.1	1,329.6	1,462.5	1,577.1	1,663.6	1,743.3	763.9	78.0%	49.3%
Northern Virginia	1,527.7	1,697.5	1,908.3	2,154.7	2,353.1	2,487.9	2,592.0	2,664.4	2,717.7	809.4	42.4%	52.2%
Suburban Maryland (7)	1,789.0	1,926.2	2,071.8	2,212.8	2,328.4	2,444.0	2,542.8	2,615.7	2,681.8	610.0	29.4%	39.4%
REGIONAL TOTAL (7)	3,923.6	4,178.0	4,552.2	4,974.5	5,308.5	5,605.6	5,822.9	5,982.5	6,101.9	1,549.7	34.0%	100.0%

- (1) The Round 6.3 population and household forecasts for the District of Columbia reflect Census 2000 counts which showed the city's population to be higher than estimated in Round 6.2.
- (2) Forecasts for years 2000 to 2030 include all of Takoma Park.
- (3) Included in Montgomery County total.
- (4) Includes Fairfax County group quarters population in the Massey Complex.
- (5) Tri-County Council for Southern Maryland develops ten-year incremental population, housing unit and employment forecasts for Calvert County, Charles County and St. Mary's County. Forecasts for 2005, 2015 and 2025 in Calvert County and Charles County were made by the Metropolitan Washington Council of Governments (MWCOG).
- (6) Source: Rappahanock Area Development Commission (RADCO), January 2003. The estimates for 2010, 2020 and 2030 are control totals provided by the Virginia Employment Commission (VEC) and should only be used for transportation planning purposes. Incremental five-year estimates (2005, 2015, and 2025) have been developed by MWCOG for the purpose of transportation modeling and air quality analysis.
- (7) Baltimore Metropolitan Council (BMC) Round 6 Forecasts (2000 to 2025) for Anne Arundel and Howard counties are shown for reference purposes only and are not included in any other totals. Howard County and Anne Arundel County provided 2000 to 2025 projections and the Metropolitan Washington Council of Governments extrapolated their data to 2030. The official forecasts for Anne Arundel County for 2030 will not be available until January 2004.

**Summary of Intermediate Household Forecasts
Round 6.3 Cooperative Forecasts
(Thousands)**

Draft

JURISDICTION	1990	1995	2000	2005	2010	2015	2020	2025	2030	2000 to 2030		Regional Share
										Number	% Change	
District of Columbia (1)	249.6	232.1	248.3	263.9	272.2	292.9	298.7	304.4	304.4	56.1	22.6%	8.8%
Arlington County	78.5	86.9	86.4	90.9	94.6	98.7	102.5	104.9	106.2	19.8	22.9%	3.1%
City of Alexandria	53.3	56.4	61.9	66.2	70.0	71.8	73.0	74.3	75.3	13.4	21.6%	2.1%
Central Jurisdictions	381.4	375.4	396.6	421.0	436.8	463.4	474.2	483.6	485.9	89.3	22.5%	13.9%
Montgomery County (2)	282.0	299.0	324.6	346.5	370.0	390.0	405.0	415.0	420.0	95.4	29.4%	14.9%
Rockville (3)	15.7	16.1	17.2	20.0	22.8	24.0	24.2	24.3	24.7	7.5	43.6%	1.2%
Prince George's County	258.0	278.1	288.6	304.5	319.0	333.6	346.7	359.6	369.8	81.2	28.1%	12.7%
Fairfax County	292.3	317.0	350.7	381.2	408.7	421.8	430.5	435.0	438.4	87.7	25.0%	13.7%
City of Fairfax	7.4	7.7	8.4	8.6	8.9	9.0	9.1	9.2	9.3	0.9	10.7%	0.1%
City of Falls Church	4.2	4.4	4.5	4.6	4.9	5.1	5.2	5.3	5.4	0.9	20.0%	0.1%
Inner Suburbs	843.9	906.2	976.8	1,045.4	1,111.5	1,159.5	1,196.5	1,224.1	1,242.9	266.1	27.2%	41.5%
Loudoun County	30.7	40.9	59.9	84.9	106.6	124.6	139.6	150.0	156.7	96.8	161.6%	15.1%
Prince William County	69.7	82.2	94.6	113.4	127.3	137.2	143.4	148.3	152.1	57.5	60.8%	9.0%
City of Manassas	9.5	13.4	11.8	12.5	12.9	13.3	13.4	13.7	13.8	2.0	16.9%	0.3%
City of Manassas Park	2.2	2.5	3.3	4.2	4.2	4.3	4.3	4.3	4.3	1.0	8.5%	0.2%
Calvert County (4)	17.0	21.1	27.6	29.5	31.5	33.7	35.8	37.7	39.7	12.1	43.8%	1.9%
Charles County (4)	33.0	36.3	43.9	49.0	54.1	62.0	70.0	75.1	80.2	36.3	82.7%	5.7%
Frederick County	52.6	62.4	70.1	76.2	84.7	93.2	101.7	110.1	120.2	50.1	71.5%	7.8%
Stafford County (5)	19.4	26.9	30.2	36.6	42.5	46.9	51.4	55.7	59.9	29.7	98.3%	4.6%
Anne Arundel County (6)	149.1	162.7	178.7	193.2	202.8	210.5	217.2	223.1	229.8	51.1	28.6%	n/a
Howard County (6)	68.3	81.2	91.0	100.0	107.5	115.0	121.0	121.7	121.7	30.7	33.7%	n/a
Outer Suburbs (6)	234.0	285.6	341.4	406.3	463.8	515.2	559.6	594.9	626.9	285.5	83.6%	44.5%
Northern Virginia	567.2	638.2	711.7	803.1	880.6	932.7	972.4	1,000.7	1,021.4	309.7	43.5%	48.3%
Suburban Maryland (6)	642.5	696.9	754.8	805.7	859.3	912.5	959.2	997.5	1,029.9	275.1	36.4%	42.9%
REGIONAL TOTAL (6)	1,459.3	1,567.2	1,714.8	1,872.7	2,012.1	2,138.1	2,230.3	2,302.6	2,355.7	640.9	37.4%	100.0%

(1) The Round 6.3 population and household forecasts for the District of Columbia reflect Census 2000 counts which showed the city's population to be higher than estimated in Round 6.2.

(2) Forecasts for years 2000 to 2030 include all of Takoma Park.

(3) Included in Montgomery County total.

(4) Tri-County Council for Southern Maryland develops ten-year incremental population, housing unit and employment forecasts for Calvert County, Charles County and St. Mary's County. Forecasts for 2005, 2015 and 2025 in Calvert County and Charles County were made by the Metropolitan Washington Council of Governments (MWCOG).

(5) Source: Rappahanock Area Development Commission (RADCO), February 2003. As of February 5, 2003, RADCO has not completed the estimates of households for Stafford County. The data for 2005 to 2030 was estimated by MWCOG.

Therefore, the estimates for households are subject to minor revision.

(6) Baltimore Metropolitan Council (BMC) Round 6 Forecasts (2000 to 2025) for Anne Arundel and Howard counties are shown for reference purposes only and are not included in any other totals. Howard County and Anne Arundel County provided 2000 to 2025 projections and the Metropolitan Washington Council of Governments extrapolated their data to 2030. The official forecasts for Anne Arundel County for 2030 will not be available until January 2004.

**Summary of Change between Employment Forecasts
Round 6.2 and Draft Round 6.3 Cooperative Forecasts
(Thousands)**

Draft

JURISDICTION	1990	1995	2000	2005	2010	2015	2020	2025	2030
District of Columbia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Arlington County	0.0	0.0	0.5	-0.8	-0.9	-1.2	-1.3	-1.5	N/A
City of Alexandria	0.0	0.0	0.0	-1.7	10.3	15.1	21.1	22.9	N/A
Central Jurisdictions	0.0	0.0	0.5	-2.5	9.4	13.9	19.8	21.4	N/A
Montgomery County (1)	0.0	0.0	9.0	-4.0	4.0	19.0	20.0	20.0	N/A
Rockville (2)	0.0	0.0	-4.3	1.8	9.8	13.0	14.7	15.1	N/A
Prince George's County	0.0	0.0	2.2	0.6	14.8	16.2	15.9	28.5	N/A
Fairfax County (3)	0.0	10.9	6.4	5.7	8.8	6.7	7.2	8.7	N/A
City of Fairfax	0.0	0.0	0.0	0.9	2.2	2.1	2.1	2.1	N/A
City of Falls Church	0.0	0.0	0.0	0.0	0.4	0.7	0.8	0.9	N/A
Inner Suburbs	0.0	10.9	17.5	3.2	30.2	44.7	46.0	60.2	N/A
Loudoun County	0.0	0.0	1.7	-8.0	-8.4	-7.5	-7.4	-8.8	N/A
Prince William County	0.0	0.0	1.0	1.4	5.5	9.4	11.6	11.7	N/A
City of Manassas	0.0	0.0	0.0	-0.8	-1.6	-2.0	-2.2	-2.3	N/A
City of Manassas Park	0.0	0.0	0.0	0.0	1.4	1.5	1.6	1.7	N/A
Calvert County (4)	0.0	0.0	1.1	2.5	4.6	4.5	4.8	5.4	N/A
Charles County (4)	0.0	0.0	-0.5	2.1	4.7	5.0	5.4	4.8	N/A
Frederick County	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Stafford County (5)	0.0	-0.7	4.9	7.2	9.5	10.9	12.3	13.5	N/A
Anne Arundel County(6)	0.0	0.0	22.7	34.1	35.8	46.0	62.5	64.2	N/A
Howard County(6)	0.0	0.0	21.2	26.9	35.6	39.3	43.0	58.0	N/A
Outer Suburbs (6)	0.0	-0.7	8.2	4.4	15.7	21.8	26.1	26.0	N/A
Northern Virginia	0.0	10.2	14.4	3.8	27.2	35.7	45.8	49.0	N/A
Suburban Maryland (6)	0.0	0.0	11.8	1.2	28.1	44.7	46.1	58.7	N/A
REGIONAL TOTAL (6)	0.0	10.2	26.2	5.1	55.3	80.4	91.9	107.7	N/A
<i>Regional Percent Change</i>	<i>0.0%</i>	<i>0.4%</i>	<i>0.9%</i>	<i>0.2%</i>	<i>1.7%</i>	<i>2.3%</i>	<i>2.5%</i>	<i>2.8%</i>	

(1) Forecasts for years 2000 to 2030 include all of Takoma Park.

(2) Included in Montgomery County total.

(3) Totals for all years include Fairfax County Government employees working in the Massey Complex.

(4) Tri-County Council for Southern Maryland develops ten-year incremental population, housing unit and employment forecasts

for Calvert County, Charles County and St. Mary's County. Forecasts for 2005, 2015 and 2025 in Calvert County and Charles County were made by the Metropolitan Washington Council of Governments.

(5) Source: Rappahanock Area Development Commission (RADCO), January 2003.

(6) Baltimore Metropolitan Council (BMC) Round 6 Forecasts (2000 to 2025) for Anne Arundel and Howard counties are shown for reference purposes only and are not included in any other totals. Howard County and Anne Arundel County provided 2000 to 2025 projections and the Metropolitan Washington Council of Governments extrapolated their data to 2030. The official forecasts for Anne Arundel County for 2030 will not be available until January 2004.

**Summary of Change between Population Forecasts
Round 6.2 and Draft Round 6.3 Cooperative Forecasts
(Thousands)**

Draft

JURISDICTION	1990	1995	2000	2005	2010	2015	2020	2025	2030
District of Columbia (1)	0.0	0.0	54.0	83.5	72.3	85.7	69.5	54.0	N/A
Arlington County	0.0	0.0	-2.5	-0.8	1.1	1.9	2.6	1.4	N/A
City of Alexandria	0.0	0.0	1.2	5.2	7.6	7.2	6.9	3.9	N/A
Central Jurisdictions	0.0	0.0	52.7	87.9	81.0	94.8	79.0	59.3	N/A
Montgomery County (2)	0.0	0.0	18.3	15.0	30.0	45.0	50.0	50.0	N/A
Rockville (3)	0.0	0.0	-4.4	-2.1	1.3	3.0	3.3	3.5	N/A
Prince George's County	0.0	0.0	23.4	32.1	28.7	21.6	15.7	11.2	N/A
Fairfax County (4)	0.0	0.0	1.6	1.5	3.2	-3.8	-7.5	-14.3	N/A
City of Fairfax	0.0	0.0	-0.3	0.3	0.3	0.5	0.8	0.6	N/A
City of Falls Church	0.0	0.0	0.0	0.0	0.6	0.8	1.0	1.2	N/A
Inner Suburbs	0.0	0.0	43.0	48.8	62.8	64.0	60.0	48.7	N/A
Loudoun County	0.0	0.0	-2.6	1.1	-3.8	-20.0	-45.3	-85.2	N/A
Prince William County	0.0	0.0	-5.3	18.0	25.7	31.4	27.7	20.2	N/A
City of Manassas	0.1	0.4	0.9	0.6	0.8	0.8	0.8	0.8	N/A
City of Manassas Park	0.1	0.0	2.3	6.6	6.9	7.0	7.0	6.8	N/A
Calvert County (5)	0.0	0.0	-0.4	-0.2	-0.4	-0.3	-0.4	-0.5	N/A
Charles County (5)	0.0	0.0	-2.6	-2.7	-2.7	-1.3	0.1	-1.9	N/A
Frederick County	0.0	0.0	0.4	0.0	0.0	0.0	0.2	-3.8	N/A
Stafford County (6)	0.0	10.2	13.9	22.9	31.9	36.6	41.4	45.5	N/A
Anne Arundel County(7)	0.0	0.0	9.5	19.2	22.9	21.3	21.7	25.9	N/A
Howard County(7)	0.0	0.0	-2.7	-10.5	-10.8	-5.4	9.1	5.4	N/A
Outer Suburbs (7)	0.2	10.6	6.6	46.4	58.4	54.2	31.5	-18.1	N/A
Northern Virginia	0.2	10.6	9.2	55.4	74.3	62.4	35.4	-19.1	N/A
Suburban Maryland (7)	0.0	0.0	39.1	44.3	55.6	65.0	65.6	55.0	N/A
REGIONAL TOTAL (7)	0.2	10.6	102.3	183.2	202.3	213.1	170.6	89.9	N/A
<i>Regional Percent Change</i>	<i>0.0%</i>	<i>0.3%</i>	<i>2.3%</i>	<i>3.8%</i>	<i>4.0%</i>	<i>4.0%</i>	<i>3.0%</i>	<i>1.5%</i>	

(1) The Round 6.3 population and household forecasts for the District of Columbia reflect Census 2000 counts which showed the city's population to be higher than estimated in Round 6.2.

(2) Forecasts for years 2000 to 2030 include all of Takoma Park.

(3) Included in Montgomery County total.

(4) Includes Fairfax County group quarters population in the Massey Complex.

(5) Tri-County Council for Southern Maryland develops ten-year incremental population, housing unit and employment forecasts for Calvert County, Charles County and St. Mary's County. Forecasts for 2005, 2015 and 2025 in Calvert County and Charles County were made by the Metropolitan Washington Council of Governments (MWCOC).

(6) Source: Rappahanock Area Development Commission (RADCO), January 2003. The estimates for 2010, 2020 and 2030 are control totals provided by the Virginia Employment Commission (VEC) and should only be used for transportation planning purposes. Incremental five-year estimates (2005, 2015, and 2025) have been developed by MWCOC for the purpose of transportation modeling and air quality analysis.

(7) Baltimore Metropolitan Council (BMC) Round 6 Forecasts (2000 to 2025) for Anne Arundel and Howard counties are shown for reference purposes only and are not included in any other totals. Howard County and Anne Arundel County provided 2000 to 2025 projections and the Metropolitan Washington Council of Governments extrapolated their data to 2030. The official forecasts for Anne Arundel County for 2030 will not be available until January 2004.

**Summary of Change between Household Forecasts
Round 6.2 and Draft Round 6.3 Cooperative Forecasts
(Thousands)**

Draft

JURISDICTION	1990	1995	2000	2005	2010	2015	2020	2025	2030
District of Columbia (1)	0.0	0.0	26.5	39.6	36.8	45.7	42.4	38.5	N/A
Arlington County	0.0	0.0	-3.7	-3.1	-2.8	-2.1	-1.6	-2.5	N/A
City of Alexandria	0.0	0.0	0.4	2.6	4.5	4.6	4.4	3.4	N/A
Central Jurisdictions	0.0	0.0	23.2	39.1	38.5	48.2	45.2	39.3	N/A
Montgomery County (2)	0.0	0.0	7.1	10.0	13.5	13.5	13.0	13.0	N/A
Rockville (3)	0.0	0.0	-0.8	0.7	2.3	3.5	3.6	3.7	N/A
Prince George's County	0.0	0.0	-1.8	-2.5	-3.6	-4.5	-7.4	-8.4	N/A
Fairfax County	0.0	0.0	-2.7	-4.7	-3.8	-6.2	-7.6	-10.0	N/A
City of Fairfax	0.0	0.0	0.2	0.2	0.3	0.3	0.4	0.5	N/A
City of Falls Church	0.0	0.0	-0.2	-0.2	0.0	0.2	0.2	0.3	N/A
Inner Suburbs	0.0	0.0	2.6	2.8	6.4	3.3	-1.4	-4.6	N/A
Loudoun County	0.0	0.0	-0.7	0.6	-1.5	-7.2	-16.0	-29.3	N/A
Prince William County	0.0	0.0	-0.1	5.0	7.2	9.5	9.5	7.9	N/A
City of Manassas	0.0	3.2	0.1	0.1	0.1	0.3	0.3	0.3	N/A
City of Manassas Park	0.0	0.0	0.6	1.3	1.2	1.1	1.0	0.8	N/A
Calvert County (4)	0.0	0.0	4.2	3.6	3.2	3.4	3.6	3.6	N/A
Charles County (4)	0.0	0.0	1.9	1.4	0.8	-1.3	2.6	-0.2	N/A
Frederick County	0.0	0.0	-0.5	-3.2	-3.5	-3.9	-4.2	-4.6	N/A
Stafford County (5)	0.0	4.3	4.5	7.7	10.5	11.8	13.1	14.3	N/A
Anne Arundel County (6)	0.0	0.0	2.6	4.7	5.7	3.4	0.2	4.5	N/A
Howard County (6)	0.0	0.0	-3.9	-8.6	-10.2	-7.4	-1.4	-0.7	N/A
Outer Suburbs (6)	0.0	7.5	10.1	16.5	18.0	13.8	9.9	-7.3	N/A
Northern Virginia	0.0	7.5	-1.6	9.5	15.7	12.3	3.7	-14.4	N/A
Suburban Maryland (6)	0.0	0.0	10.9	9.3	10.4	7.3	7.5	3.3	N/A
REGIONAL TOTAL (6)	0.0	7.5	35.9	58.4	62.8	65.3	53.7	27.4	N/A
<i>Regional Percent Change</i>	<i>0.0%</i>	<i>0.5%</i>	<i>2.1%</i>	<i>3.2%</i>	<i>3.2%</i>	<i>3.2%</i>	<i>2.5%</i>	<i>1.2%</i>	

(1) The Round 6.3 population and household forecasts for the District of Columbia reflect Census 2000 counts which showed the city's population to be higher than estimated in Round 6.2.

(2) Forecasts for years 2000 to 2030 include all of Takoma Park.

(3) Included in Montgomery County total.

(4) Tri-County Council for Southern Maryland develops ten-year incremental population, housing unit and employment forecasts for Calvert County, Charles County and St. Mary's County. Forecasts for 2005, 2015 and 2025 in Calvert County and Charles County were made by the Metropolitan Washington Council of Governments (MWCOG).

(5) Source: Rappahanock Area Development Commission (RADCO), February 2003. As of February 5, 2003, RADCO has not completed the estimates of households for Stafford County. The data for 2005 to 2030 was estimated by MWCOG. Therefore, the estimates for households are subject to minor revision.

(6) Baltimore Metropolitan Council (BMC) Round 6 Forecasts (2000 to 2025) for Anne Arundel and Howard counties are shown for reference purposes only and are not included in any other totals. Howard County and Anne Arundel County provided 2000 to 2025 projections and the Metropolitan Washington Council of Governments extrapolated their data to 2030. The official forecasts for Anne Arundel County for 2030 will not be available until January 2004.

Summary of Percent Change between Employment Forecasts Round 6.2 and Draft Round 6.3 Cooperative Forecasts

Draft

JURISDICTION	1990	1995	2000	2005	2010	2015	2020	2025	2030
District of Columbia	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	N/A
Arlington County	0.0%	0.0%	0.2%	-0.4%	-0.4%	-0.5%	-0.5%	-0.5%	N/A
City of Alexandria	0.0%	0.0%	0.0%	-1.6%	9.4%	13.3%	18.2%	19.2%	N/A
Central Jurisdictions	0.0%	0.0%	0.0%	-0.2%	0.9%	1.2%	1.7%	1.7%	N/A
Montgomery County (1)	0.0%	0.0%	1.7%	-0.7%	0.6%	3.0%	3.0%	3.0%	N/A
Rockville (2)	0.0%	0.0%	-5.9%	2.3%	11.9%	15.2%	17.0%	17.3%	N/A
Prince George's County	0.0%	0.0%	0.7%	0.2%	3.8%	4.0%	3.5%	5.8%	N/A
Fairfax County (3)	0.0%	2.4%	1.2%	1.0%	1.4%	1.0%	1.0%	1.2%	N/A
City of Fairfax	0.0%	0.0%	0.0%	2.7%	6.8%	6.4%	6.4%	6.4%	N/A
City of Falls Church	0.0%	0.0%	0.0%	0.0%	4.2%	7.3%	8.2%	9.3%	N/A
Inner Suburbs	0.0%	0.9%	1.2%	0.2%	1.8%	2.5%	2.5%	3.1%	N/A
Loudoun County	0.0%	0.0%	2.0%	-6.8%	-5.8%	-4.3%	-3.7%	-3.8%	N/A
Prince William County	0.0%	0.0%	1.1%	1.3%	4.6%	7.2%	8.2%	7.7%	N/A
City of Manassas	0.0%	0.0%	0.0%	-3.7%	-7.0%	-8.4%	-9.1%	-9.5%	N/A
City of Manassas Park	0.0%	0.0%	0.0%	0.0%	42.4%	44.1%	45.7%	48.6%	N/A
Calvert County (4)	0.0%	0.0%	4.4%	9.3%	16.3%	15.4%	16.2%	18.2%	N/A
Charles County (4)	0.0%	0.0%	-1.0%	3.9%	8.1%	8.4%	8.8%	7.5%	N/A
Frederick County	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	N/A
Stafford County (5)	0.0%	-4.8%	26.9%	33.0%	37.4%	37.6%	37.8%	37.5%	N/A
Anne Arundel County (6)	0.0%	0.0%	8.3%	11.8%	11.8%	14.8%	19.9%	19.6%	N/A
Howard County (6)	0.0%	0.0%	15.3%	17.6%	21.7%	22.4%	23.0%	31.0%	N/A
Outer Suburbs (6)	0.0%	-0.2%	2.1%	0.9%	3.0%	3.7%	4.0%	3.7%	N/A
Northern Virginia	0.0%	1.1%	1.3%	0.3%	2.0%	2.5%	3.0%	3.0%	N/A
Suburban Maryland (6)	0.0%	0.0%	1.1%	0.1%	2.3%	3.5%	3.4%	4.1%	N/A
REGIONAL TOTAL (6)	0.0%	0.4%	0.9%	0.2%	1.7%	2.3%	2.5%	2.8%	N/A

(1) Forecasts for years 2000 to 2030 include all of Takoma Park.

(2) Included in Montgomery County total.

(3) Totals for all years include Fairfax County Government employees working in the Massey Complex.

(4) Tri-County Council for Southern Maryland develops ten-year incremental population, housing unit and employment forecasts for Calvert County, Charles County and St. Mary's County. Forecasts for 2005, 2015 and 2025 in Calvert County and Charles County were made by the Metropolitan Washington Council of Governments.

(5) Source: Rappahanock Area Development Commission (RADCO), January 2003.

(6) Baltimore Metropolitan Council (BMC) Round 6 Forecasts (2000 to 2025) for Anne Arundel and Howard counties are shown for reference purposes only and are not included in any other totals. Howard County and Anne Arundel County provided 2000 to 2025 projections and the Metropolitan Washington Council of Governments extrapolated their data to 2030. The official forecasts for Anne Arundel County for 2030 will not be available until January 2004.

Summary of Percent Change between Population Forecasts Round 6.2 and Draft Round 6.3 Cooperative Forecasts

Draft

JURISDICTION	1990	1995	2000	2005	2010	2015	2020	2025	2030
District of Columbia (1)	0.0%	0.0%	10.4%	16.0%	13.0%	14.6%	11.2%	8.3%	N/A
Arlington County	0.0%	0.0%	-1.3%	-0.4%	0.5%	0.9%	1.2%	0.6%	N/A
City of Alexandria	0.0%	0.0%	0.9%	4.0%	5.6%	5.2%	4.9%	2.7%	N/A
Central Jurisdictions	0.0%	0.0%	6.3%	10.3%	9.1%	10.2%	8.1%	5.9%	N/A
Montgomery County (2)	0.0%	0.0%	2.1%	1.6%	3.2%	4.6%	5.0%	4.9%	N/A
Rockville (3)	0.0%	0.0%	-8.5%	-3.8%	2.2%	5.0%	5.5%	5.8%	N/A
Prince George's County	0.0%	0.0%	3.0%	3.9%	3.4%	2.4%	1.7%	1.2%	N/A
Fairfax County (4)	0.0%	0.0%	0.2%	0.1%	0.3%	-0.3%	-0.6%	-1.2%	N/A
City of Fairfax	0.0%	0.0%	-1.2%	1.2%	1.5%	2.1%	3.4%	2.5%	N/A
City of Falls Church	0.0%	0.0%	0.0%	0.0%	5.6%	7.4%	9.2%	11.0%	N/A
Inner Suburbs	0.0%	0.0%	1.6%	1.7%	2.1%	2.1%	1.9%	1.5%	N/A
Loudoun County	0.0%	0.0%	-1.5%	0.5%	-1.2%	-5.4%	-10.3%	-16.8%	N/A
Prince William County	0.0%	0.0%	-1.9%	5.6%	7.3%	8.5%	7.2%	5.0%	N/A
City of Manassas	0.4%	1.3%	2.6%	1.7%	2.2%	2.2%	2.2%	2.2%	N/A
City of Manassas Park	1.5%	0.0%	28.8%	80.5%	82.1%	82.4%	80.5%	76.4%	N/A
Calvert County (5)	0.0%	0.0%	-0.5%	-0.2%	-0.5%	-0.3%	-0.4%	-0.5%	N/A
Charles County (5)	0.0%	0.0%	-2.1%	-1.9%	-1.8%	-0.8%	0.1%	-1.0%	N/A
Frederick County	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.1%	-1.3%	N/A
Stafford County (6)	0.0%	14.6%	17.7%	26.2%	33.2%	35.0%	36.5%	37.3%	N/A
Anne Arundel County (7)	0.0%	0.0%	2.0%	3.8%	4.5%	4.1%	4.1%	4.8%	N/A
Howard County(7)	0.0%	0.0%	-1.1%	-3.7%	-3.6%	-1.7%	3.0%	1.8%	N/A
Outer Suburbs (7)	0.0%	1.3%	0.7%	4.1%	4.6%	3.8%	2.0%	-1.1%	N/A
Northern Virginia	0.0%	0.6%	0.5%	2.6%	3.3%	2.6%	1.4%	-0.7%	N/A
Suburban Maryland (7)	0.0%	0.0%	1.9%	2.0%	2.4%	2.7%	2.6%	2.1%	N/A
REGIONAL TOTAL (7)	0.0%	0.3%	2.3%	3.8%	4.0%	4.0%	3.0%	1.5%	N/A

- (1) The Round 6.3 population and household forecasts for the District of Columbia reflect Census 2000 counts which showed the city's population to be higher than estimated in Round 6.2.
- (2) Forecasts for years 2000 to 2030 include all of Takoma Park.
- (3) Included in Montgomery County total.
- (4) Includes Fairfax County group quarters population in the Massey Complex.
- (5) Tri-County Council for Southern Maryland develops ten-year incremental population, housing unit and employment forecasts for Calvert County, Charles County and St. Mary's County. Forecasts for 2005, 2015 and 2025 in Calvert County and Charles County were made by the Metropolitan Washington Council of Governments (MWCOG).
- (6) Source: Rappahanock Area Development Commission (RADCO), January 2003. The estimates for 2010, 2020 and 2030 are control totals provided by the Virginia Employment Commission (VEC) and should only be used for transportation planning purposes. Incremental five-year estimates (2005, 2015, and 2025) have been developed by MWCOG for the purpose of transportation modeling and air quality analysis.
- (7) Baltimore Metropolitan Council (BMC) Round 6 Forecasts (2000 to 2025) for Anne Arundel and Howard counties are shown for reference purposes only and are not included in any other totals. Howard County and Anne Arundel County provided 2000 to 2025 projections and the Metropolitan Washington Council of Governments extrapolated their data to 2030. The official forecasts for Anne Arundel County for 2030 will not be available until January 2004.

**Summary of Percent Change between Household Forecasts
Round 6.2 and Draft Round 6.3 Cooperative Forecasts**

Draft

JURISDICTION	1990	1995	2000	2005	2010	2015	2020	2025	2030
District of Columbia (1)	0.0%	0.0%	11.9%	17.7%	15.6%	18.5%	16.5%	14.5%	N/A
Arlington County	0.0%	0.0%	-4.1%	-3.3%	-2.9%	-2.1%	-1.5%	-2.4%	N/A
City of Alexandria	0.0%	0.0%	0.6%	4.2%	6.8%	6.9%	6.4%	4.8%	N/A
Central Jurisdictions	0.0%	0.0%	6.2%	10.3%	9.7%	11.6%	10.5%	8.9%	N/A
Montgomery County (2)	0.0%	0.0%	2.2%	3.0%	3.8%	3.6%	3.3%	3.2%	N/A
Rockville (3)	0.0%	0.0%	-4.2%	3.5%	11.3%	17.2%	17.4%	18.0%	N/A
Prince George's County	0.0%	0.0%	-0.6%	-0.8%	-1.1%	-1.3%	-2.1%	-2.3%	N/A
Fairfax County	0.0%	0.0%	-0.8%	-1.2%	-0.9%	-1.5%	-1.7%	-2.3%	N/A
City of Fairfax	0.0%	0.0%	2.5%	2.4%	3.4%	3.7%	4.9%	6.0%	N/A
City of Falls Church	0.0%	0.0%	-4.3%	-4.2%	0.0%	4.1%	4.0%	6.0%	N/A
Inner Suburbs	0.0%	0.0%	0.3%	0.3%	0.6%	0.3%	-0.1%	-0.4%	N/A
Loudoun County	0.0%	0.0%	-1.2%	0.7%	-1.4%	-5.5%	-10.3%	-16.3%	N/A
Prince William County	0.0%	0.0%	-0.1%	4.6%	6.0%	7.4%	7.1%	5.6%	N/A
City of Manassas	0.0%	31.1%	0.9%	0.8%	0.8%	2.3%	2.3%	2.2%	N/A
City of Manassas Park	0.0%	0.0%	22.2%	44.8%	40.0%	34.4%	30.3%	22.9%	N/A
Calvert County (4)	0.0%	0.0%	17.9%	14.0%	11.1%	11.3%	11.1%	10.4%	N/A
Charles County (4)	0.0%	0.0%	4.6%	2.9%	1.6%	-2.0%	3.8%	-0.3%	N/A
Frederick County	0.0%	0.0%	-0.7%	-4.0%	-4.0%	-4.0%	-4.0%	-4.0%	N/A
Stafford County (5)	0.0%	19.0%	17.5%	26.6%	32.8%	33.6%	34.2%	34.5%	N/A
Anne Arundel County (6)	0.0%	0.0%	1.5%	2.5%	2.9%	1.6%	0.1%	2.0%	N/A
Howard County (6)	0.0%	0.0%	-4.1%	-7.9%	-8.7%	-6.0%	-1.1%	-0.6%	N/A
Outer Suburbs (6)	0.0%	2.7%	3.0%	4.2%	4.0%	2.7%	1.8%	-1.2%	N/A
Northern Virginia	0.0%	1.2%	-0.2%	1.2%	1.8%	1.3%	0.4%	-1.4%	N/A
Suburban Maryland (6)	0.0%	0.0%	1.5%	1.2%	1.2%	0.8%	0.8%	0.3%	N/A
REGIONAL TOTAL (6)	0.0%	0.5%	2.1%	3.2%	3.2%	3.2%	2.5%	1.2%	N/A

- (1) The Round 6.3 population and household forecasts for the District of Columbia reflect Census 2000 counts which showed the city's population to be higher than estimated in Round 6.2.
- (2) Forecasts for years 2000 to 2030 include all of Takoma Park.
- (3) Included in Montgomery County total.
- (4) Tri-County Council for Southern Maryland develops ten-year incremental population, housing unit and employment forecasts for Calvert County, Charles County and St. Mary's County. Forecasts for 2005, 2015 and 2025 in Calvert County and Charles County were made by the Metropolitan Washington Council of Governments (MWCOG).
- (5) Source: Rappahanock Area Development Commission (RADCO), February 2003. As of February 5, 2003, RADCO has not completed the estimates of households for Stafford County. The data for 2005 to 2030 was estimated by MWCOG. Therefore, the estimates for households are subject to minor revision.
- (6) Baltimore Metropolitan Council (BMC) Round 6 Forecasts (2000 to 2025) for Anne Arundel and Howard counties are shown for reference purposes only and are not included in any other totals. Howard County and Anne Arundel County provided 2000 to 2025 projections and the Metropolitan Washington Council of Governments extrapolated their data to 2030. The official forecasts for Anne Arundel County for 2030 will not be available until January 2004.

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				FULL	SCALED-BACK	UNDER-WAY	REMOVED			2005		2030		
										VOC	NOX	VOC	NOX	
X	1994-99 TIP	MDOT	Signal Systems - MD 3, MD 450 to Waugh Chapel	X				1994	1996	0.000	0.000	0.0000	0.0000	TR
X	1994-99 TIP	MDOT	Signal Systems - MD 450, 56th to MD 564	X				1994	1998	0.003	-0.003	0.0012	-0.0007	TR
X	1994-99 TIP	MDOT	Signal Systems - MD 193, Rhode Island to Hanover	X				1994	1998	0.002	-0.003	0.0008	-0.0003	TR
X	1994-99 TIP	MDOT	Signal Systems - MD 197, S. Laurel to Clubhouse	X				1994	1998	0.002	-0.002	0.0000	-0.0003	TR
X	1994-99 TIP	MDOT	Signal Systems - MD 5, 15th to Metzertott	X				1994	1997	0.002	-0.002	0.0008	-0.0003	TR
X	1994-99 TIP	MDOT	Signal Systems - Marlow Heights to MD 637	X				1994	1998	0.001	-0.002	0.0004	-0.0003	TR
	1994-99 TIP	MDOT	Safety and Geometric Improvements				X	1994	n/a	n/a	n/a	n/a	n/a	-
	1994-99 TIP	MDOT	Park & Ride Lot - MD 355/ MD 187				X	1993	n/a	n/a	n/a	n/a	n/a	-
X	1994-99 TIP	MDOT	Park & Ride Lot - MD 210/ MD 373			X		2000	Fall 2002	0.001	0.003	0.0004	0.0020	C
	1994-99 TIP	MDOT	Germantown Garage Parking Exp. (add 1000 spaces)				X		n/a	n/a	n/a	n/a	n/a	-
X	1994-99 TIP	VDOT	Signal Systems	X				1994	97-00	0.437	-0.322	0.1511	-0.0655	TR
X	1994-99 TIP	VDOT	Ridesharing (Regional & PRTC)			X			ongoing	0.061	0.141	0.0213	0.0402	C
X	1994-99 TIP	LOUD	VA 28 Corridor Park & Ride Lot (add 100 spaces)	X				1995	1995	0.001	0.003	0.0004	0.0009	C
X	1994-99 TIP	PRTC	VRE Signalization	X					Summer 97	0.007	0.021	0.0023	0.0065	C
X	1994-99 TIP	PRTC	VRE Locomotive Purchase (2)	X				1994	1995	0.018	0.048	0.0062	0.0151	C
X	1994-99 TIP	PRTC	PRTC Feeder Vehicle Purchase	X				1994	1994	0.009	0.017	0.0031	0.0053	C
	1994-99 TIP	PRTC	VRE Woodbridge Parking Expansion (add 500 spaces)				X			n/a	n/a	n/a	n/a	-
X	1994-99 TIP	ALEX	King St. Metrorail access improvements			X			n/a	0.002	0.003	0.0008	0.0009	C
X	1994-99 TIP	WMATA	WMATA Bus Replacement (45 buses)	X				1995	1995	0.017	0.065	0.0000	0.0000	SP
	1995-00 TIP	MDOT	Park & Ride Lot - I-70 at Walsler Dr. (new, 900+ spaces)				X	1997	n/a	n/a	n/a	n/a	n/a	-
	1995-00 TIP	MDOT	Park & Ride Lot - MD 117/ MD 118 (new, 75 spaces)				X	1996	n/a	n/a	n/a	n/a	n/a	-
	1995-00 TIP	MDOT	Park & Ride Lot - I-270/ MD 80 (add 100 spaces)				X	1996	n/a	n/a	n/a	n/a	n/a	-
X	1995-00 TIP	MDOT	Park & Ride Lot - Brunswick MARC (add 300 spaces)	X					1999	0.010	0.029	0.0031	0.0290	C
X	1995-00 TIP	MDOT	Signal Systems - MD 202, 57th Ave. to Fire House Rd.	X				1995	1996					TR
X	1995-00 TIP	MDOT	Signal Systems - MD 4, Forestville Rd. to Shadyside Dr.	X				1995	1998					TR
X	1995-00 TIP	MDOT	Signal Systems - US 1, Ritz Way to Murkirk Rd.	X				1995	1997					TR
X	1995-00 TIP	MDOT	Signal Systems - MD 193, Hanover Pkwy to Prospect Hill Rd.	X				1995	1996					TR
X	1995-00 TIP	MDOT	Signal Systems - MD 212, Cherry Hill Rd. to Old Gunpdr. Rd.	X				1995	1996					TR
X	1995-00 TIP	MDOT	Signal Systems - MD 198, Van Dusen Rd. to US 1	X				1995	1998					TR
	1995-00 TIP	MDOT	Signal Systems - MD 450, MD 197 to Race Track Rd.	X				1995	2000					TR
	1995-00 TIP	MDOT	Signal Systems - MD 450, MD 564 to Carter Ave.				X	1995	n/a					TR
	1995-00 TIP	MDOT	Signal Systems - MD 450, US 1 Alt. to MD 202			X		1995	n/a					TR
	1995-00 TIP	MDOT	Signal Systems - MD 458, MD 414 to Walker Mill Rd.			X		1995	2001					TR
X	1995-00 TIP	MDOT	Signal Systems - MD 214, MD 193 to Campus Way	X				1996	1996					TR
	1995-00 TIP	MDOT	Signal Systems - MD 223, Steed Rd. to Dangerfield Rd.				X	1996	n/a					TR
X	1995-00 TIP	MDOT	Signal Systems - MD 85 Executive Way to MD 355			X		1996	2001					TR
X	1995-00 TIP	MDOT	Signal Systems - MD 355, I-70 ramps to Grove Rd.			X		1996	n/a					TR
X	1995-00 TIP	MDOT	Signal Systems - US 301, Excalibur Rd. to Governor Bridge	X				1996	1996					TR
X	1995-00 TIP	MDOT	Signal Systems - US 301, MD 382 to Rosaryville Rd.	X				1996	1996					TR
X	1995-00 TIP	MDOT	Signal Systems - MD 650, Sheridan St. to Metzertott Rd.				X	1996	n/a					TR
	1995-00 TIP	MDOT	Signal Systems - MD 410, MD 212, to Taylor Ave.				X	1996	n/a					TR
	1995-00 TIP	MDOT	Signal Systems - MD 410, 62nd Ave. to Riverdale Rd.			X		1996	n/a					TR

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				FULL	SCALED-BACK	UNDER-WAY	REMOVED			2005		2030			
										VOC	NOX	VOC	NOX		
45	X	1995-00 TIP	MDOT	Signal Systems - MD 202, Campus Way to Whitehouse Rd.	X				1996	n/a					TR
46	X	1995-00 TIP	MDOT	Signal Systems - TOTAL CREDITED PROJECTS	X				see above	see above	0.018	-0.021	0.0063	-0.0031	TR
47		1995-00 TIP	MDOT	Geometric Improvements			X		1995	n/a	n/a	n/a	n/a		-
48	X	1995-00 TIP	MDOT	MARC Replacement Coaches			X		1999		0.001	0.003	0.0012	0.0018	C
49	X	1995-00 TIP	MDOT	MARC Expansion Coaches			X		1999		0.008	0.024	0.0054	0.0145	C
50	X	1995-00 TIP	VDOT	Park & Ride Facilities - PRTC Public Transit Support - 1 year	X				1995				0.0000	0.0000	C
51	X	1995-00 TIP	VDOT	Alexandria Telecommuting Pilot Program			X		2001				0.0000	0.0000	C
52	X	1995-00 TIP	VDOT	Fairfax Co. TDM program expansion - 1 year program			X		2000	2001			0.0000	0.0000	C
53	X	1995-00 TIP	VDOT	Alexandria Bus Access Improvements	X				1998	1998	0.001	0.001	0.0004	0.0000	C
54	X	1995-00 TIP	VDOT	City of Fairfax Bus Shelters			X		1999	2001	0.000	0.001	0.0000	0.0000	C
55	X	1995-00 TIP	VDOT	Lorton VRE Access	X				1995	1995	0.005	0.012	0.0015	0.0035	C
56	X	1995-00 TIP	VDOT	Cherry Hill VRE Access			X		n/a	n/a	0.006	0.021	0.0023	0.0047	C
57	X	1995-00 TIP	DC	Right Turn on Red			X				0.041	0.050	0.0161	0.0102	TR
58	X	1995-00 TIP	WMATA	Bus Replacement (172 buses)	X				1998	1998			0.0000	0.0000	SP
59	X	1995-00 TIP	MCG	Shady Grove West Park and Ride			X		2010				0.0000	0.0030	C
60	X	1995-00 TIP	MCG	White Oak Park and Ride			X		2010				0.0000	0.0059	C
61	X	1995-00 TIP	MCG	Bicycle Facilities			X		FY99		0.003	0.002	0.0012	0.0006	C
62	X	1995-00 TIP	MCG	Pedestrian Facilities to Metrorail			X				0.005	0.007	0.0015	0.0021	C
63	X	1995-00 TIP	MDOT	MARC Replacement Coaches			X		1999	2000	0.004	0.010	0.0031	0.0059	C
64	X	1995-00 TIP	MDOT	MARC Expansion Coaches			X		1999	2000	0.030	0.089	0.0282	0.0482	C
65	X	1995-00 TIP	VDOT	VRE Park and Ride Expansion - 3800 spaces	X				1999	1999	0.044	0.132	0.0151	0.0363	C
66	X	1995-00 TIP	VDOT	Commuter Lots - District Wide			X		varies	varies	0.010	0.028	0.0062	0.0157	C
67	X	1995-00 TIP	VDOT	I-66 and Stringfellow Rd. Park and Ride	X				2000	2000 end	0.009	0.017	0.0039	0.0059	C
68	X	1995-00 TIP	VDOT	Lake Ridge Park and Ride (now called Tacketts Mill lot)	X				1999/2000	1999/2000	0.000	0.009	0.0000	0.0030	C
69	X	1995-00 TIP	VDOT	Bicycle Trails and Facilities			X		varies	varies	0.002	0.015	0.0074	0.0053	C
70	X	1995-00 TIP	VDOT	Pedestrian Facilities to Metrorail					varies	varies	0.000	0.001	0.0004	0.0006	C
71	X	1995-00 TIP	VDOT	I-66 HOV access at Monument Dr.	X				1997	1997	0.009	0.017	0.0004	0.0059	C
72		1995-00 TIP	DC	Bicycle Facilities			X				0.022	0.017	0.0093	0.0065	C
73	X	1995-00 TIP	REGION	COG Regional Ridesharing Support	X					on-going	0.025	0.053	0.0080	0.0102	C
74	X	1995-00 TIP	REGION	M-47 Integrated Ridesharing	X					on-going	0.046	0.095	0.0148	0.0182	C
75	X	1995-00 TIP	REGION	M-92 Telecommuting Support	X					on-going	0.588	1.250	0.1901	0.2390	C
76		1996-01 TIP	MDOT	MD 5 / MD 373 Park and Ride				X	1999	n/a	n/a	n/a	n/a	n/a	-
77		1996-01 TIP	VDOT	Alexandria Landmark Transit Center					Delayed	n/a	n/a	n/a	n/a	n/a	-
78	X	1996-01 TIP	VDOT	Tyson's Westpark Transit Center	X				1999	1999	0.001	0.005	0.0004	0.0018	C
79	X	1996-01 TIP	VDOT	Fairfax County Bus Shelters (30 shelters with project #85)			X		1999	Summer 2001	0.002	0.003	0.0008	0.0009	C
80	X	1996-01 TIP	VDOT	Loudoun County Bus Shelters (4 shelters)			X		2000	Late 2001	0.001	0.003	0.0004	0.0012	C
81	X	1996-01 TIP	VDOT	Arlington County Metrocheck Program	X				1997	Continue indefinitely	0.002	0.003	0.0004	0.0009	C
82	X	1996-01 TIP	VDOT	Old Dominion Drive Bike Trail			X		2000	2003	0.001	0.001	0.0004	0.0003	C
83	X	1996-01 TIP	WMATA	Bus Replacement (see line 58, above)	X				1998	1998	credit taken in line 58, above		n/a	n/a	SP
84		1996-01 TIP	MGC	Stamp Out Bad Bus Stops				X	1999	n/a	n/a	n/a	n/a	n/a	C
85	X	1996-01 TIP	VDOT	Fairfax County Bus Shelters (30 shelters with project #79)			X		1999	2001	0.001	0.001	0.0004	0.0009	C

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				FULL	SCALED-BACK	UNDER-WAY	REMOVED			2005		2030		
										VOC	NOX	VOC	NOX	
86	X	1996-01 TIP	VDOT	Tacketts Mill Park and Ride	X				1996	0.011	0.028	0.0039	0.0095	C
87	X	1996-01 TIP	VDOT	Reston Bus Replacement	X				1994	0.002	0.009	n/a	n/a	SP
88	X	1996-01 TIP	VDOT	Construct Left Turn Bays			X		varies	0.003	0.002	0.0012	0.0003	TR
90	X	1996-01 TIP	REGION	M-47c Employer Outreach / Guaranteed Ride Home (\$10)	X				on-going	0.610	1.131	0.1937	0.2156	C
91	X	1996-01 TIP	REGION	M-70a Bicycle Parking			X	1999		0.009	0.009	0.0039	0.0030	C
92	X	STADIUM ANALYSIS		M-92 Telecommuting Support										C
					combined with item #75									
93	X	1997-02 TIP	PRTC	PRTC Omnibus Bus Service	X				1996	0.000	0.000	0.0000	0.0000	C
94	X	1997-02 TIP	MCG	Lake Forest Transit Center	X			1997	1996	0.001	0.003	0.0004	0.0009	C
95	X	1997-02 TIP	MCG	Germantown Transit Center			X	2004		0.005	0.016	0.0019	0.0053	C
96	X	1997-02 TIP	MCG	Tulagi Pl. Park and Ride	X			1997	1995	0.001	0.003	0.0004	0.0009	C
97	X	1997-02 TIP	MDOT	MD 5 Rel./MD 205 Park and Ride Construction	X			1999	1998	0.004	0.013	0.0012	0.0041	C
98	X	1997-02 TIP	MDOT	I-270 / MD 80 P&R Expansion (2 lots -> 289 + 301 spaces)	X			1996	sum 1999/Fall200	0.002	0.010	0.0008	0.0030	C
99	X	1997-02 TIP	MDOT	Hagerstown Telework Center (Wash. MSA Benefits)	X			1997	1997	0.001	0.007	0.0004	0.0021	C
100	X	1997-02 TIP	PG	Anacostia Bicycle Trail	X			1999	1998	0.007	0.001	0.0031	0.0003	C
101	X	1997-02 TIP	MCG	Montgomery County Bus Replacement	X					0.003	0.011	0.0000	0.0000	SP
102	X	1997-02 TIP	PG	Prince George's County Bus Replacement	X			1998	1998	0.003	0.009	0.0000	0.0000	SP
103	X	1997-02 TIP	PG	Prince George's County Bus Service			X	1998	1998	0.004	0.009	0.0012	0.0027	C
104	X	1997-02 TIP	VDOT	I-66 Park and Ride at VA 234 / Portsmouth	X				1996	0.009	0.024	0.0066	0.0151	C
105	X	1997-02 TIP	VDOT	Arl. Co. Transit Ridership Develop. Initiative Program	X				1998	0.019	0.039	0.0070	0.0103	C
106	X	1997-02 TIP	VDOT	PRTC Employer Commuting Outreach Program	X				on going	0.004	0.001	0.0008	0.0000	C
107	X	1997-02 TIP	VDOT	PRTC Multimodal Strategic Marketing Implementation Plan	X				on going	0.000	0.001	0.0000	0.0003	C
108	X	1997-02 TIP	MDOT	M-103 Taxicab Replacement in Maryland			X	1999		0.116	0.389	0.3120	0.4810	SP
109	X	1997-02 TIP	REGION	M-70b Employer Outreach for Bicycles	X			1998	on going	0.0011	0.001	0.0003	0.0002	C
110	X	1997-02 TIP	VDOT	M-77b Vanpool Incentive Programs in Virginia			X	1999	delayed	n/a	n/a	n/a	n/a	C
111	X	1998-03	WMATA	Bus Replacement (108 buses)	X			1999	1999	0.045	0.162	0.0000	0.0000	SP
112	X	1998-03 TIP	MCG	Montgomery County Bus Replacement	X					0.008	0.027	0.0000	0.0000	SP
113	X	1998-03 TIP	PG	Prince George's County Bus Replacement	X			1998	1998	0.001	0.002	0.0000	0.0000	SP
114	X	1998-03 TIP	FDC	Frederick County Bus Replacement	X					0.001	0.000	0.0000	0.0000	SP
115	X	1998-03 TIP	FDC	Frederick County Shuttles	X					0.000	0.001	0.0000	0.0003	C
116	X	1998-03 TIP	VDOT	PRTC Ridesharing	X				on-going	0.000	0.000	0.0000	0.0000	C
117	X	1998-03 TIP	VDOT	Arlington County Four Mile Run Bike Trail			X	1999		0.001	0.001	0.0004	0.0003	C
118	X	1998-03 TIP	VDOT	Northern Virginia Turn Bays			X	2000		0.001	0.002	0.0008	0.0003	TR
119	X	1998-03 TIP	VDOT	Fairfax City Bus Replacement			X	2001		n/a	n/a	n/a	n/a	SP
120	X	1998-03 TIP	VDOT	Alternative Fueled Vehicles		X		1999	1998	0.001	0.001	0.0010	0.0010	H
121	X	1998-03 TIP	VDOT	WMATA Bus Replacement (252 buses)	X			2001	2001	0.106	0.386	0.0000	0.0000	SP
122	X	97 & 98 TIP	REGION	M-101a Mass Marketing Campagin (Consumer)					ongoing	0.119	0.212	0.0752	0.0807	C
123	X	1999-04 TIP	MDOT	Various Park and Ride Lots(I-270/MD124, 450 & I-170/MD-75, 54 spaces)	X			2001/1999	2001	0.007	0.031	0.0039	0.0136	C
124	X	1999-04 TIP	MDOT	Signal Systems (197/MD-198, MD-382 TO US-301,US301)				2000		0.011	-0.003	0.0078	-0.0014	TR
125	X	1999-04 TIP	VDOT	Transit Center at 7 Corners				2002		0.001	0.002	0.0004	0.0006	C
126	X	1999-04 TIP	VDOT	Falls Church Clean Diesel Bus Service				2000		0.004	0.005	0.0000	0.0000	SP
127	X	1999-04 TIP	VDOT	VA 234 Bike Trail				2001		0.000	0.000	0.0000	0.0000	C
128	X	1999-04 TIP	VDOT	PRTC Ridesharing	X			on-going	on-going	0.000	0.000	0.0000	0.0000	C

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					FULL	SCALED-BACK	UNDER-WAY	REMOVED			2005		2030		
											VOC	NOX	VOC	NOX	
129	X	2000-05 TIP	MDOT	MD 202, MD 85, US 301 Signal Systemization				X	2001		n/a	n/a	n/a	n/a	TR
130	X	1996-01 TIP	VDOT	M-14: I-66 Feeder Bus Fare Buy Down	X						0.023	0.047	0.0081	0.0124	C
131	X	2000-05 TIP	MDOT	Various park and Ride Lots				X	2002		0.007	0.031	0.0042	0.0139	C
132	X	2000-05TIP	MDOT	Signal Systems	X				Varies	on-going	0.003	0.000	0.0007	0.0000	TR
133	X	2000-05TIP	VDOT	450 Spaces at Gambrell/Hooes Rds. Park and Ride				X	2002		0.006	0.015	0.0021	0.0041	C
134	X	2000-05TIP	VDOT	300 Spaces at Backlick Rd				X	2003		0.005	0.011	0.0015	0.0030	C
135	X	2000-05TIP	VDOT	Accotink-Gateway Connector Trail				X	2002		0.006	0.009	0.0018	0.0020	C
136	X	2000-05TIP	VDOT	Columbia Pike Trail				X	2000		0.006	0.007	0.0014	0.0015	C
137	X	2000-05TIP	VDOT	Lee Highway trail				X	2000		0.003	0.003	0.0006	0.0008	C
138	X	2000-05TIP	VDOT	Arlington Bus Shelter Improvements				X	2005		0.001	0.001	0.0002	0.0002	C
139	X	2000-05TIP	VDOT	Pentagon Metrostation Improvements	X					n/a	0.007	0.015	0.0022	0.0033	C
140	X	2000-05TIP	MDOT	East/West Intersection Improvements							0.038	0.021	0.0859	0.0337	C
141	X	2001-06TIP	Feds	Federal Transit/Ridesharing subsidy	X				on-going		0.094	0.164	0.0286	0.0313	C
142	X	2002-07TIP	WMATA	100 CNG buses				X	2002		0.000	0.136	0.0000	0.0000	SP
143	X	2002-07TIP	WMATA	ULSD with CRT filters				X	on-going		0.210	0.000	0.4300	0.0000	H
144	X	2003-08 TIP	DC	Replace 23 Taxicabs with CNG cabs							0.0177	0.031	-	-	H
145	X	2003-08 TIP	DC	D.C.Incident Response & TrafficManagement System							0.0254	0.075	-	0.0168	TR
146	X	2003-08 TIP	DC	Bicycle Lane in D. C. (35 Mile) *							0.0154	0.015	0.0046	0.0029	C
147	X	2003-08 TIP	DC	Bicycle Racks in D. C. (500) *							0.0021	0.002	0.0006	0.0003	C
148	X	2003-08 TIP	DC	External Bicycle Racks on WMATA Buses in D. C. (600) *							0.0031	0.006	0.0010	0.0011	C
149	X	2003-08 TIP	DC	CNG Rental Cars (18) *							0.00003	0.0002	-	-	SP
150	X	2003-08 TIP	DC	Sidewalks in D.C. (\$ 5 million)							0.0578	0.101	0.0182	0.0192	C
151	X	2003-08 TIP	DC	CNG Refuse Haulers (2) *							0.0001	0.002	-	-	H
152	X	2003-08 TIP	DC	Circulator /Feeder Bus Routes							0.0211	0.036	0.0066	0.0069	C
153	X	2003-08 TIP	MDOT	Commuter Tax Credit							0.1262	0.2219	0.0398	0.0422	C
155	X	2003-08 TIP	MDOT	Employer Vanpool Program (WWB)							0.0030	0.0075	-	-	C
156	X	2003-08 TIP	MDOT	Green Line Link							0.0041	0.0085	0.0013	0.0016	C
157	X	2003-08 TIP	MDOT	Park & Ride Lots - Southern Maryland *							0.0071	0.0175	0.0023	0.0034	C
158	X	2003-08 TIP	MDOT	Prince George's County- Bus Exp							0.0578	0.1191	0.0186	0.0228	C
159	X	2003-08 TIP	MDOT	MTA - Bus Service Expansion							0.0131	0.0285	0.0042	0.0054	C
160	X	2003-08 TIP	MDOT	Ride- On - Super Discount							0.0015	0.0026	0.0005	0.0005	C
161	X	2003-08 TIP	MDOT	Regional Traveler Information Systems							0.1596	0.9730	0.0680	0.2193	TR
162	X	2003-08 TIP	MDOT	Universal Transportation Access (MD + WMATA) *D37							0.0259	0.0452	0.0082	0.0086	C
163	X	2003-08 TIP	MCG	Construction of 1300 additional Parking Spaces at Grosvenor Metro Garage							0.0074	0.0189	0.0025	0.0036	C
164	X	2003-08 TIP	MCG	Bethesda Shuttle Bus Services							0.0050	0.0087	0.0016	0.0016	C
165	X	2003-08 TIP	MCG	External Bicycle Racks on Ride-On Buses in Montgomery County							0.0010	0.0017	0.0003	0.0003	C
166	X	2003-08 TIP	MCG	New CNG Powered Light Duty Vehicle fleet in the County							0.00002	0.0001	-	-	SP
167	X	2003-08 TIP	MCG	Free Bus Service on Selected Routes on I-270							0.0017	0.0030	0.0005	0.0006	C
168	X	2003-08 TIP	MCG	Annual Sidewalk Program							0.0275	0.0480	0.0087	0.0091	C
169	X	2003-08 TIP	MDOT	Bethesda Breeze/International Express Metrobus							0.0060	0.0097	0.0019	0.0018	C

PREVIOUSLY IMPLEMENTED TERMS
TRANSPORTATION EMISSION REDUCTION MEASURES (TIP)

Credited in Air Quality Conformity Analyses (calendar years 1993-2002)

(TRACKING SHEET)

* Project Category: TR - Traffic Stream, C - Commute, H - Heavy Duty Vehicles (Engine Technology), SP- Specific Vehicle Type

CREDIT TAKEN	TIP CREDITED	AGENCY	PROJECT	IMPLEMENTATION STATUS				ORIGINAL COMPLETION DATE	ACTUAL COMPLETION DATE	TONS/DAY REDUCTION CREDITED				Project Category *
				FULL	SCALED-BACK	UNDER-WAY	REMOVED			2005		2030		
										VOC	NOX	VOC	NOX	
170	X	2003-08 TIP	MDOT	Bethesda-8, Silver Spring Downtown Dasher and Prince Georges Co. Shuttles at 3 PNR lot						0.0142	0.0189	0.0043	0.0036	C
171	X	2003-08 TIP	MDOT	Proposed Transportation Management District in Montgomery County (Rockville and Gaithersburg)						0.0093	0.0142	0.0029	0.0027	C
172	X	2003-08 TIP	MDOT	Sidewalks (Bikes/Pedestrian) at / near Rail Stations						0.0150	0.0267	0.0047	0.0051	C
173	X	2003-08 TIP	MDOT	Neighborhood Sidewalks Improvements (Bike/Pedestrian)						0.0052	0.0030	0.0015	0.0005	C
174	X	2003-08 TIP	MDOT	Neighborhood Conservation Program - Neighborhood Sidewalks Improvements (Bikes/Pedestrian)						0.0046	0.0026	0.0013	0.0005	C
175	X	2003-08 TIP	MDOT	Maryland bus Transit Service Expansion						0.0228	0.0586	0.0076	0.0112	C
176	X	2003-08 TIP	VDOT	Universal Transportation Access Program						0.0019	0.0034	0.0006	0.0006	C
177	X	2003-08 TIP	VDOT	Interactive Rideshare & Kiosk Initiative						0.0006	0.0013	0.0002	0.0002	C
178	X	2003-08 TIP	VDOT	Mobile Commuter Stores						0.0035	0.0071	0.0011	0.0014	C
179	X	2003-08 TIP	VDOT	Telework Incentive Program						0.0012	0.0022	0.0004	0.0004	C
180	X	2003-08 TIP	VDOT	Commuter Choice						0.0015	0.0025	0.0005	0.0005	C
181	X	2003-08 TIP	VDOT	Employer Shuttle Services						0.0184	0.0301	0.0057	0.0057	C
183	X	2003-08 TIP	VDOT	Park-and-Ride Lots						0.0175	0.0382	0.0057	0.0073	C
184	X	2003-08 TIP	VDOT	Van Start / Van Save						0.0022	0.0047	0.0007	0.0009	C
185	X	2003-08 TIP	VDOT	Metro Shuttle Bus						0.0019	0.0047	0.0006	0.0009	C
186	X	2003-08 TIP	VDOT	VRE Early (PM) Train Service						0.0133	0.0277	0.0043	0.0053	C
187	X	2003-08 TIP	VDOT	VRE Mid-Day Train Service						0.0025	0.0053	0.0008	0.0010	C
188	X	2003-08 TIP	VDOT	PRTC Express Bus Service						0.0007	0.0015	0.0002	0.0003	C
190	X	2003-08 TIP	VDOT	Employer Vanpool Program (VA)						0.0015	0.0034	-	-	C
191	X	2003-08 TIP	VDOT	Town of Leesburg P&R Lot						0.0031	0.0071	0.0010	0.0014	C
192	X	2003-08 TIP	VDOT	District-wide P&R Lots						0.0182	0.0406	0.0059	0.0078	C
193	X	2003-08 TIP	VDOT	Additional Parking at 4 Metro stations						0.0235	0.0604	0.0078	0.0116	C
194	X	2003-08 TIP	VDOT	Loudoun County Transit Service						0.0022	0.0037	0.0007	0.0007	C
195		2003-08 TIP	VDOT	VDOT - Travel Management System						-	-	-	-	C
196	X	2003-08 TIP	WMATA	64 CNG Buses (Purchased in 2001)						0.0021	0.0870	-	-	SP
197	X	2003-08 TIP	WMATA	250 CNG Buses (To be purchased in 2002)						0.0083	0.3400	-	-	SP
198	X	2003-08 TIP	WMATA	100 Engine Replacement (58 MY 1992&42 1993 MY buses)						0.0230	0.1258	-	-	SP
199	X	2003-08 TIP	WMATA	Car Sharing Program						0.0013	0.0033	0.0004	0.0006	C
200	X	2003-08 TIP	WMATA	Bikes Racks on WMATA Buses in VA (372 Bike Racks)						0.0020	0.0035	0.0006	0.0007	C
201	X	2003-08 TIP	WMATA	Clean Diesel fuel (ULSD) with filter						0.4300	-	0.4300	-	H
202	X	2003-08 TIP	MDOT	Fleet Replacement (state auto fleet, gas to hybrid, 250 vehicles)						0.0055	0.013	-	-	SP
203	X	2003-08 TIP	MDOT	Replace 55 Montgomery County 10 yr. old buses w/ new CNG buses						-	0.286	-	-	SP
204	X	2003-08 TIP	MDOT	Neighborhood Bus Shuttle (5 circulator routes)						0.0121	0.0221	0.0038	0.0042	C
205	X	2003-08 TIP	MDOT	New Surface Parking at Transit Centers (500 spaces)						0.0042	0.0108	0.0014	0.0021	C
206	X	2003-08 TIP	MDOT	Additional Bike Lockers at Metro-Stations						0.0213	0.0379	0.0067	0.0072	C
207	X	2003-08 TIP	MDOT	Bike Facilities at PnR Lots or other similar location						0.0150	0.0300	0.0048	0.0057	C
208	X	2003-08 TIP	MDOT	CNG Fueling Stations						0.1270	0.1170	-	-	SP
209	X	2003-08 TIP	MDOT	Gas cap replacements						N/A	N/A	N/A	N/A	SP

**PREVIOUSLY IMPLEMENTED TERMS
TRANSPORTATION EMISSION REDUCTION MEASURES (TIP)**

Credited in Air Quality Conformity Analyses (calendar years 1993-2002)

(TRACKING SHEET)

* Project Category: TR - Traffic Stream, C - Commute, H - Heavy Duty Vehicles (Engine Technology), SP- Specific Vehicle Type

	CREDIT TAKEN	TIP CREDITED	AGENCY	PROJECT	IMPLEMENTATION STATUS				ORIGINAL COMPLETION DATE	ACTUAL COMPLETION DATE	TONS/DAY REDUCTION CREDITED				Project Category *
					FULL	SCALED-BACK	UNDER-WAY	REMOVED			2005		2030		
											VOC	NOX	VOC	NOX	
210	X	2003-08 TIP	MDOT	Gas can turnover							N/A	N/A	N/A	N/A	SP
211	X	2003-08 TIP	MDOT	External Bicycle Racks on WMATA Buses (486 MD buses)							0.0023	0.0040	0.0007	0.0008	C
212	X	2003-08 TIP	MDOT	Bike \ Pedestrian Trail - Anacostia River Walk							0.0009	0.0008	0.0003	0.0002	C
213	X	2003-08 TIP	MDOT	Transit Prioritization - Queue Jumps							0.0050	0.0068	0.0015	0.0013	SP
214	X	2003-08 TIP	MDOT	Commuter Choice Benefit/Tax Credit - Marketing Expansion							0.0881	0.1559	0.0278	0.0297	C
215	X	2003-08 TIP	MDOT	Improvements to Pedestrian Access in TOD areas (4 locations)							0.0096	0.0158	0.0030	0.0030	C
216	X	2003-08 TIP	MDOT	Telecommuting Expansion							0.1041	0.2192	0.0336	0.0419	C
217	X	2003-08 TIP	MDOT	Replace older Diesel Engine in Public Sector vehicles							0.0237	0.130	-	-	H
218	X	2003-08 TIP	VDOT	MV-92 Telecommuting Program - Expanded ¹							0.1112	0.2341	0.0359	0.0447	C
219	X	2003-08 TIP	VDOT	MV-123 Employer Outreach for Public Sector Employees ¹							0.0247	0.0430	0.0078	0.0082	C
220	X	2003-08 TIP	REGION	Signal System Optimization							0.674	0.272	0.2870	0.0613	TR

CREDIT TAKEN (X means emissions reduction credits taken):

TIP - Emissions credits are taken for projects being implemented, according to the progress reporting schedules provided by the implementing agencies (contained in Appendix L). No credit has been taken for projects in which only some components of the measure have been implemented. (The status of these projects will be reassessed next year).

CLRP - Credit is taken for each of these elements of the CLRP, according to the schedule provided by the implementing agency.

IMPLEMENTATION STATUS:

FULL = project is completed as planned at the time of analysis; SCALED BACK = project is completed, but at a different level than assumed at the time of analysis (i.e., purchased 50 buses instead of 100)

UNDERWAY = project is not complete, but is close enough that credit may be taken (i.e., under construction, NOT just out for bid); REMOVED = project no longer expected to be implemented or constructed

COMPLETION DATE:

PROJECTED = project completion date originally expected (i.e., at time of emissions analysis)

ACTUAL = actual year project was open for use, or expected to be open for use if under construction

**** Reflects instances where emissions reductions previously credited are no longer appropriate to the indicated forecast year, due to schedule slippage.

For the projects adopted in the FY 2003-2008 TIP implementing status will be reported during the next Conformity Cycle.

DEALYED - Project Delayed

**PREVIOUSLY IMPLEMENTED TERMS
TRANSPORTATION EMISSION REDUCTION MEASURES (CLRP Projects Only)**

Credited in Air Quality Conformity Analyses (calendar years 1993-2000)
(TRACKING SHEET)

Project Category: TR - Traffic Stream, C - Commute, H - Engine Technology (Heavy Dudy Vehicles), SP- Specific Vehicle Type

	CREDIT TAKEN	TIP CREDITED	AGENCY	PROJECT	IMPLEMENTATION STATUS				PROJECTED	ACTUAL	TONS/DAY REDUCTION CREDITED				Project Category
					FULL	SCALED-BACK	UNDER-WAY	REMOVED	COMPLETION	COMPLETION	2025		2030		
									DATE	DATE	VOC	NOX	VOC	NOX	
221	X	1995-00 TIP	REGION	M-24 Speed Limit Adherence							0.32	1.57	0.1253	0.5355	TR
222		1996-01 TIP	MGC	Rock Spring Park Pedestrian Amenities				X			n/a	n/a	n/a	n/a	-
223	X	1996-01 TIP	MGC	Olney Transit Center Park and Ride							0.002	0.008	0.0008	0.0024	C
224	X	1996-01 TIP	MGC	Damascus Park and Ride							0.001	0.004	0.0004	0.0012	C
225	X	1996-01 TIP	DC	M-103 Taxicab Replacement							0.349	0.6	0.3490	0.6000	H
226	X	STADIUM ANALYSIS		Taxicab Replacement							0.156	0.24	0.1560	0.2400	H
227	X	1997-02 TIP	MDOT	Shady Grove West Transit Center Park and Ride							0	0.01	0.0000	0.0030	C
228	X	1997-02 TIP	MGC	Olney Transit Center Park and Ride							0.002	0.008	0.0008	0.0024	C
229	X	1997-02 TIP	MGC	White Oak Park and Ride							0	0.02	0.0000	0.0059	C
230	X	1997-02 TIP	MGC	Damascus Park and Ride							0.001	0.003	0.0004	0.0009	C
231	X	1997-02 TIP	MGC	Four Corners Transit Center							0	0.001	0.0000	0.0003	C
232		1997-02 TIP	MGC	Burtonsville Transit Center				X			n/a	n/a	n/a	n/a	-
233	X	1997-02 TIP	MGC	Silver Spring Transit Access								0.002		0.0006	C
234	X	1997-02 TIP	MGC	Shady Grove Parking Construction							0.005	0.019	0.0019	0.0056	C

DEFINITIONS:

CREDIT TAKEN (X means emissions reduction credits taken):

TIP - Emissions credits are taken for projects being implemented, according to the progress reporting schedules provided by the implementing agencies (contained in Appendix L). No credit has been taken for projects in which only some components of the measure have been implemented. (The status of these projects will be reassessed next year).
CLRP - Credit is taken for each of these elements of the CLRP, according to the schedule provided by the implementing agency.

IMPLEMENTATION STATUS:

FULL = project is completed as planned at the time of analysis.
SCALED BACK = project is completed, but at a different level than assumed at the time of analysis (i.e., purchased 50 buses instead of 100)
UNDERWAY = project is not complete, but is close enough that credit may be taken (i.e., under construction, NOT just out for bid)
REMOVED = project no longer expected to be implemented or constructed

COMPLETION DATE:

PROJECTED = project completion date originally expected (i.e., at time of emissions analysis)
ACTUAL = actual year project was open for use, or expected to be open for use if under construction

Reflects instances where emissions reductions previously credited are no longer appropriate to the indicated forecast year, due to schedule slippage.
Delayed - Project Delayed

Potential TERMS

	Potential TERMS	VOC With MOBILE6 FACTORS		NOx With MOBILE 6 FACTORS		Project
		2005	2030	2005	2030	Category *
400	M-07A Voluntary Employer Parking Cash-Out Subsidy	0.2022	0.0637	0.3525	0.0670	C
401	M-24 Speed Limit Adherence (accelerated)	-	-	1.3145	-	TR
402	M-47c Employer Outreach for Private Sector Employers (expanded)	0.0380	0.0120	0.0663	0.0126	C
404	M-93 Improve Pedestrian Facilities Near Rail Stations	0.0310	0.0098	0.0540	0.0103	C
405	M-103 150 Taxicab Replacement Program - CNG (expanded)	-	-	0.2030	-	SP
406	M-103a 150 Taxicab Replacement Program - conventional vehicles	-	-	0.1750	-	SP
407	M-110 10 Transit Stores in Maryland	0.0127	0.0041	0.0261	0.0050	C
408	M-111 Replace Traffic Signals with Lesser Controls	-	-	-	-	TR
409	M-113 6 Kiosks in Maryland	0.0001	0.0000	0.0001	0.0000	C
410	M-123 Employer Outreach for Public Sector Employers	0.0979	0.0308	0.1706	0.0325	C
411	M-132 Vanpool Incentive Program (expanded M-77b)	0.0387	0.0126	0.0889	0.0170	C
412	M-133 Metrorail Feeder Bus Service	0.0018	0.0006	0.0047	0.0009	C
413	M-134 Implement Neighborhood Circulator Buses (10)	0.0211	0.0066	0.0363	0.0069	C
414	M-135 Construction of 5950 Parking Spaces at Metrorail Stations	0.0337	0.0112	0.0868	0.0167	C
415	M-142 100 CNG Buses (Purchase CNG buses in place of new diesel)	-	-	0.1358	-	SP
416	M-142a 100 CNG Buses (Replace old diesel buses with CNG buses)	-	-	0.1360	-	SP
417	M-142b Opt for CNG for Next Replacement/Expansion Bus Purchase	-	-	0.4300	-	SP
418	M-142c Replace 952 Bus Fleet with CNG Operated Buses	-	-	1.9800	-	SP
419	M-142d WMATA CNG Bus Replacement (buses>12 years old)	-	-	2.1020	-	SP
420	M-143 Real Time Bus Schedule Information	0.0085	0.0027	0.0149	0.0028	C
422	M-146 Purchase 100 WMATA buses (ridership growth)	0.0706	0.0222	0.1230	0.0234	C
423	M-147 Expand Fleet with Hybrid/Electric Buses	-	-	0.0600	-	SP
424	M-148 WMATA Bus Information Displays with Maps (2000 cases)	0.0153	0.0048	0.0266	0.0051	C
425	M-149 Automatic Vehicle Locator System	0.0441	0.0139	0.0769	0.0146	C
426	M-150 Enhanced Commuter Services- (HOV Facilities)	0.0150	0.0050	0.0387	0.0074	C
427	M-151 Enhanced Commuter Services-US 1 (Reverse Commute)	0.0204	0.0065	0.0410	0.0078	C
428	M-152 Enhanced Commuter Services- (Rail Relief)	0.0207	0.0069	0.0534	0.0103	C
429	M- 154 Extend Peak Hour Service	0.0388	0.0122	0.0676	0.0129	C
430	M-155 Expand Carsharing Program	0.0013	0.0004	0.0033	0.0006	C
431	M-156 Free bus-to-rail/ rail-to-bus transfers	0.0353	0.0111	0.0615	0.0117	C
432	M-158 Free Bus Service Off-Peak	0.0296	0.0093	0.0517	0.0098	C
433	M-159 W15-590 - Diesel Fuel Additive	-	-	0.1330	-	H
434	M-160 Bose Automobile Anti-Air Pollutant and Energy Conservation S	-	-	0.6100	-	H
435	M-161 Diesel Emulsion Fuel Additive (Non-road or Highway)	-	-	0.1800	-	H
436	M-162 Early Engine Retirement (Pre-88)	-	-	0.9000	-	H
437	M-163 Truck Idling (Truck Stops and Auxiliary Power Unit)	-	-	0.4000	-	H
438	M-164 International Green Diesel Retrofit	-	-	0.1400	-	H
439	M-165 Bike Stations at Rail Station	0.0008	0.0002	0.0013	0.0003	C
	New TERMS (revenue generating)					
440	M-144 Parking Impact Fees	0.8481	0.2671	1.4784	0.2762	C
	Other Suggested Measures- Under Development					
441	Transit Oriented Development	-	-	-	-	C
442	Reducing Congestion	-	-	-	-	TR
443	Heavy Duty Truck Pollution	-	-	-	-	H
444	Government Actions (ozone action day similar to snow day)	-	-	-	-	C
445	M-153 Remove 125 Trash Trucks per/day ^{note 5}	-	-	0.4860	-	H
446	M-166 Monthly Transit Pass	-	-	-	-	C

* Project Category: TR - Traffic Stream, C - Commute, H - Heavy Duty Vehicles (Engine Technology), SP- Specific Vehicle Type