

**ITEM 8 - Action**  
February 21, 2007

Approval of Letter to the Metropolitan Washington Air Quality Committee (MWAQC) Concerning Review of New Transportation Measures Under Consideration for the Region's 8-Hour Ozone State Implementation Plan (SIP), and the Establishment of 2010 Mobile Emissions Budgets to help meet Contingency Requirements for the SIP

**Staff**

**Recommendation:** Receive briefing on and approve the enclosed draft letter from TPB to MWAQC concerning transportation measures and contingency inputs to the 8-hour ozone SIP.

**Issues:** None

**Background:** The letter is in response to the enclosed January 12 and January 26, 2007 letters from MWAQC to the TPB.

## **National Capital Region Transportation Planning Board**

777 North Capitol Street, N.E., Suite 300, Washington, D.C. 20002-4290 (202) 962-3310 Fax: (202) 962-3202

**DRAFT**

February 21, 2007

The Honorable Nancy Floreen  
Chair  
Metropolitan Washington Air Quality Committee  
777 North Capitol Street, NE  
Washington, DC 20002 – 4239

Dear Chair Floreen:

This letter responds to your January 12 and January 26, 2007 letters to me concerning review of new transportation measures under consideration for the region's 8-hour ozone state implementation plan (SIP), and the establishment of 2010 mobile emissions budgets to help meet contingency requirements for the SIP.

### **Review of New Transportation Measures under Consideration for the SIP**

Attachment A, Summary Table 1 (previously transmitted to MWAQC by the TPB in the November 7 and December 20, 2006 letters) contains draft motor vehicle emissions budgets for volatile organic compounds (VOC) and nitrogen oxide (NO<sub>x</sub>). The table shows mobile source inventory estimates of emissions in 2008 and 2009, and the subtraction of SIP-committed measures to yield net emissions. This resultant provides draft mobile source budgets for 2008 and 2009. TCM and Vehicle-Based SIP-committed measures reflected in Table 1 are listed in Attachment B.

Your January 12<sup>th</sup> letter provided a listing of potential new measures, including transportation measures, being advanced by local governments. The TPB is pleased to support each of these new initiatives. Advancement of additional transportation commitments to the 8-hour ozone SIP would, however, affect the specification of new mobile source emissions budgets. Since the draft mobile source emissions budgets shown in Table 1 of Attachment A are set at the forecast year emissions levels, the TPB needs to have additional Transportation Emissions Reduction Measure (TERM) credits available for use in air quality conformity determinations to ensure transportation plans and programs adhere to the SIP budgets. Accordingly, the TPB requests that emissions credits from new measures currently under consideration be reserved for use as TERM credits in air quality conformity assessments.

The TPB also notes that SIP commitments have a special status in the transportation

conformity process in that in order to make a conformity determination the TPB must find that the region's constrained long range plan and / or transportation improvement program "provides for timely completion or implementation of all TCMs in the applicable implementation plan". An ineffective Transportation Control Measure (TCM) included in the SIP could preclude the TPB from making a conformity determination even if all other SIP and conformity requirements are met. It is therefore recommended to State and local governments that emissions reduction measures should be "hard-wired" into the new SIP as TCMs only if it is absolutely certain that they will be implemented.

Given the schedule of upcoming TPB and MWAQC meeting dates, this letter represents the last opportunity for the full TPB to comment on the SIP before it is scheduled to be released for public comment by MWAQC on March 15th. Because of the importance of SIP commitments in terms of potential impacts upon the transportation planning and programming process in the Washington region, the TPB asks that, if MWAQC is considering advancing any new transportation measures for inclusion in the SIP (instead of as TERMS for use in conformity assessments), the TPB Steering Committee, which meets on March 2<sup>nd</sup>, be extended an opportunity to review and comment upon these measures.

### **Estimation of 2010 Mobile Emissions Budgets for SIP Contingency Plan Requirements**

Your January 26<sup>th</sup> letter explains the rationale for the setting of a motor vehicle emissions budget for 2010 in order to meet SIP contingency plan requirements, and asks the TPB's assistance in its preparation. The letter identifies the need for up to 9 tons per day of NOx, which would be provided by setting a 2010 mobile emissions budget for NOx 9 tons lower than the 2009 budget. The letter notes that EPA staff indicate that such an approach would be acceptable in meeting SIP contingency requirements.

Following receipt of your January 26<sup>th</sup> letter, TPB staff prepared the specified 2010 mobile emissions inventory and presented the results at the February 2, 2007 meeting of the TPB Technical Committee. Preparation of the inventory indicates that mobile source emissions decrease sufficiently between 2009 and 2010 to provide the margin requested, due to the introduction of newer, cleaner vehicles in the regional fleet between 2009 and 2010. The TPB therefore is pleased to advance 9 tons per day of NOx credits for use in meeting the contingency plan requirement. Summary Table 2 in Attachment A reflects this credit for application in setting 2010 motor vehicle emissions budgets. Following submission of the SIP to EPA and that agency's determination of adequacy of the motor vehicle emissions budgets for each year, the TPB will use the 2008, 2009 and 2010 budgets in its air quality conformity assessments.

The TPB is pleased to be able to provide this assistance to MWAQC in meeting its SIP responsibilities and looks forward to continuing our close technical and policy working relationships as we move forward in meeting remaining SIP planning requirements.

Sincerely,

Catherine Hudgins  
Chair, National Capital Region  
Transportation Planning Board

Following:

Attachments A and B  
January 12, and January 26, 2007 MWAQC letters to TPB

## ATTACHMENT A

**Summary Table 1 - Calculation of 2008 and 2009  
Mobile Source Emissions Budgets for the 8-Hour Ozone SIP (Tons/Day)**

	2008		2009	
	VOC	NOx	VOC	NOx
Mobile Source Emissions Inventory	70.98	160.30	66.68	146.53
TCMs	0.11	0.25	0.10	0.22
Vehicle Based Measures	0.08	0.24	0.08	0.23
Net	<b>70.79</b>	<b>159.81</b>	<b>66.50</b>	<b>146.08</b>
<b>Draft Mobile Source Budget</b>	<b>70.8</b>	<b>159.8</b>	<b>66.5</b>	<b>146.1</b>

**Summary Table 2 - Calculation of 2010  
Mobile Source Emissions Budgets for the 8-Hour Ozone SIP (Tons/Day)**

	2008		2009		2010	
	VOC	NOx	VOC	NOx	VOC	NOx
Mobile Source Emissions Inventory	70.98	160.30	66.68	146.53		
TCMs	0.11	0.25	0.10	0.22		
Vehicle Based Measures	0.08	0.24	0.08	0.23		
9 Ton NOx Reduction in 2010 due to Fleet Turnover					----	-9.00
Net	<b>70.79</b>	<b>159.81</b>	<b>66.50</b>	<b>146.08</b>		
<b>Draft Mobile Source Budget</b>	<b>70.8</b>	<b>159.8</b>	<b>66.5</b>	<b>146.1</b>	<b>66.5</b>	<b>137.1</b>

## ATTACHMENT B

### TCM's And Vehicle Technology Based, Fuel Based, and Maintenance Based Measures 8-Hour SIP

Ref #	Description	Jurisdiction	Responsible Agency	TIP Year	Funding Type	Implementation Year	2008 Emissions		2009 Emissions	
							VOC	NOx	VOC	NOx
<b>TCMs</b>										
DC-1	Bicycle Lane in D. C. (8 miles)	DC	DDOT	FY 2002-07	Federal/State	2004	0.0021	0.0022	0.0019	0.0020
DC-3	Bicycle Racks in D.C. (150 Racks)	DC	DDOT	FY 2002-07	Federal/State	2004	0.0004	0.0003	0.0003	0.0003
MD-2	Transit Parking Facilities	MD	MDOT	FY 1997-02	State/Local	2000	0.0026	0.0055	0.0024	0.0050
MD-3	MARC Replacement/Expansion Coaches	MD	MARC	FY 1995-00	State/Local	2000	0.0232	0.0615	0.0214	0.0551
MD-4	Bicycle Facilities	MD	MDOT	FY 1995-00	State/Local	1998	0.0051	0.0012	0.0047	0.0011
MD-5	Park and Ride Facilities	MD	MDOT	FY 1997-02	State/Local	1998-03	0.0039	0.0117	0.0036	0.0105
MD-6	Grosvenor Metro Garage	MD	MDOT	FY 1997-02	State/Local	2003-04	0.0039	0.0095	0.0036	0.0085
MD-7	Maryland Park-and-Ride Lots (Recent Additions)	MD	MDOT	FY 1997-02	State/Local	2000-04	0.0042	0.0105	0.0039	0.0094
NV-1	Northern Virginia Districtwide Park-And-Ride Spaces	NV	VDOT	FY 1995-00	State/Local	1996-99	0.0180	0.0492	0.0166	0.0441
NV-2	Transit Access Improvements (VRE Parking Spaces)	NV	VDOT	FY 1996-01	Private	2001	0.0103	0.0240	0.0095	0.0215
NV-4	Improved Pedestrian Access	NV	VDOT	FY 1997-02	State/Local	2002-04	0.0006	0.0012	0.0006	0.0011
NV-5	Construction of Bus Shelters (12)	NV	City of Fairfax	FY 1997-02	State/Local	1999 - Summer 2003	0.0000	0.0006	0.0000	0.0006
NV-6	Park & Ride Spaces (New)	NV	VDOT	Varies	Fed./State	Aug. 2000 - Sept. 2002	0.0222	0.0514	0.0205	0.0459
NV-7	Bicycle Lanes/Trails in Northern Virginia (12 miles)	NV	VDOT	Varies	Fed./State	1999 - Aug. 2003	0.0031	0.0033	0.0029	0.0029
NV-8	Bicycle Lockers in Northern Virginia (VDOT)	NV	VDOT	Varies	Fed./State	1997 - 2002	0.0002	0.0004	0.0002	0.0003
NV-10	Bicycle Trails/Lanes in Northern Virginia (29 miles)	Arlington & P.W. County	Arlington County	*	State/Local	2003	0.0075	0.0079	0.0069	0.0071
NV-11	Sidewalk improvements in Northern Virginia (1.5 miles)	Fairfax City	P. W. County	*	State/Local	June 2001 - July 2003	0.0004	0.0005	0.0004	0.0004
WM-1	Bicycle Racks on Buses (1458 racks)	Region	WMATA	FY 2003-08	CMAQ	2003	0.0047	0.008	0.0044	0.0072
<b>TCM subtotal</b>							<b>0.1124</b>	<b>0.2490</b>	<b>0.1037</b>	<b>0.2229</b>

### Vehicle Technology Based, Fuel Based And Maintenance Based Measures

DC-2	New CNG Powered Trash Trucks (2 Vehicles)	DC	DDOT	FY 2002-07	Federal/State	2003	0.0000	0.0022	0.0000	0.0022
MD-1	Maryland Suburban Bus Replacements	MCG, PG	MCG, PG	FY 1997-02	State/Local	1998/1999	0.0064	0.0154	0.0059	0.0138
NV-3	Purchase Of New Transit Buses (WMATA)	NV	VDOT	FY 1995-00	CMAQ	1996-1998	0.0161	0.0412	0.0148	0.0369
NV-9	Hybrid light Duty Vehicles (25 vehicles)	Fairfax County	Fairfax County	*	State/Local	2002 - 2003	0.0004	0.0009	0.0004	0.0009
NV-12	11 New CNG Buses in place of Diesel Buses	Arlington County	Arlington County	*	Operating Fund	2003	0.0000	0.0174	0.0000	0.0174
WM-2	ULSD; CRT Filters (886 buses)	Region	WMATA	FY 2003-08	CMAQ; Private	2001; 2004	0.0600	0.0000	0.0600	0.0000
WM-3	CNG Buses (164 buses)	Region	WMATA	FY 2002-07	Fed/State /Local	2002-03	0.0000	0.1594	0.0000	0.1594
<b>Veh Tech subtotal</b>							<b>0.0829</b>	<b>0.2365</b>	<b>0.0812</b>	<b>0.2306</b>
<b>Grand Total</b>							<b>0.1954</b>	<b>0.4854</b>	<b>0.1849</b>	<b>0.4535</b>

\* Projects implemented as part of the jurisdictions' ongoing countywide capital program and not required to be included in a TIP.

# Metropolitan Washington Air Quality Committee

Suite 300, 777 North Capitol Street, N.E. Washington, D.C. 20002-4239 202-962-3358 Fax: 202-962-3203

January 12, 2007

Honorable Catherine Hudgins, Chair  
National Capital Region Transportation Planning Board  
777 North Capitol Street, NE  
Washington, D.C. 20002

Dear Chair Hudgins:

This letter responds to a letter from TPB dated December 20, 2006 regarding mobile source measures proposed for inclusion in the SIP. In the letter, TPB asked for the opportunity to review and comment upon any local government or state transportation measures proposed for the new 8-hour ozone SIPs. The purpose of TPB's review would be to ensure a consistent analytical approach, and to prevent any possibility of double-counting emissions benefits among SIPs and air quality conformity assessment activities.

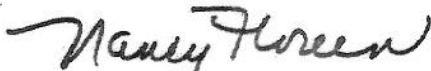
State and local government transportation measures were included in the 1-hour ozone SIPs and are being proposed for the 8-hour ozone SIPs. The proposals include the TCMs and vehicle-, fuel- and maintenance-based measures transmitted in a TPB letter dated November 7, 2006, as well as a number of mobile source measures advanced by local governments in the region. The remainder of this letter focuses on the measures advanced by local governments.

The Washington DC-MD-VA region's 1-hour ozone SIPs included a bundle of local voluntary measures, among them some mobile source measures (see Attachment 1). In developing the control strategy for the 8-hour ozone SIPs, local jurisdictions are building upon the efforts from the past SIP to include an updated local voluntary bundle. A list of the programs that were identified and are being considered for inclusion in the SIP is also found in Attachment 1. Local jurisdictions are proposing inclusion of low-emission vehicle purchases, diesel retrofits, use of low-VOC paints, purchase of wind energy, and a variety of episodic code orange and code red programs. In addition, LED traffic signal retrofits are being examined as a possible local voluntary measure.

In response to TPB's request, we will transmit proposed mobile measures to DTP staff for review. We appreciate your assistance in identifying inconsistencies in methodology or duplication of measures. The schedule for adopting the 8-hour ozone SIPs calls for a draft SIP to be approved by MWAQC for public comment in March. To this end, we accept your offer and ask that the Technical Committees of TPB and MWAQC collaborate closely to review and reach agreement on the handling of local mobile measures in the SIPs by mid-February.

We look forward to our continuing close technical and policy working relationship as we move towards completion of the draft SIPs to meet EPA's new 8-hour ozone standard.

Sincerely,



Nancy Floreen, Chair  
Metropolitan Washington Air Quality Committee

Attachment 1. Summary of Potential Voluntary Measures Commitments (2002-2009)  
Washington, DC-MD-VA Ozone Nonattainment Area

Jurisdiction	Commitments in 1-hour Ozone SIP	New Additional Commitments for 8-hour Ozone SIP (a)	2005 Emission Reduction Credited in 1-hour Ozone SIP (tpd)	Possible New 2009 Emission Reduction for 8-hour Ozone SIP (tpd)
<b>Regional Wind Power Purchase Program (kWh/year)</b>				
Montgomery County (b)	28,000,000	23,809,091		
Prince George's County		7,611,601		
Arlington County		2,340,000		
Fairfax County		5,800,000		
District of Columbia		16,500		
<b>Total</b>	<b>28,000,000</b>	<b>39,577,192</b>	<b>0.05 NOx</b>	<b>0.07 NOx</b>
<b>Clean Energy Rewards Program (MWh/year)</b>				
Montgomery County		31,900		
<b>Total</b>		<b>31,900</b>	<b>No Credit</b>	<b>No Credit</b>
<b>Renewable Portfolio Standards (kWh/year)</b>				
District of Columbia	-	-	-	-
<b>Total</b>	-	-	-	-
<b>LED Traffic Signal Retrofits (# of intersections)</b>				
VDOT	0	864		
MDOT	0	15		
District of Columbia	0	-		
Montgomery County	0	250		
Arlington County	0	271		
City of Alexandria	0	239		
City of Falls Church	0	818		
<b>Total</b>			<b>0</b>	
<b>Building Efficiency/Energy Performance Contracting (kWh/year savings)</b>				
Fairfax County	0	6,630,675		
Arlington County	0	1,500,000		
City of Greenbelt	0	230,000		
Montgomery County	0	-		
City of Falls Church	0	-		
City of Alexandria	0	-		
Calvert County	0	-		
<b>Total</b>	<b>0</b>	<b>8,360,675</b>	<b>No Credit</b>	<b>No Credit</b>
<b>Diesel Retrofits (# of vehicles)</b>				
Fairfax County School Bus	1,329	Complete		
Fairfax County Class 8 Trucks	0	113		
Fairfax County Fire Equipment	0	50		
Fairfax County DOT (DPF)	148	95		
Fairfax County DOT (idling)	0	95		
Montgomery County	0	253		
Loudoun County	0	237		
<b>Total</b>			<b>No Credit</b>	
<b>Low-Emission Vehicle Purchases (# of vehicles)</b>				
Arlington County	0	69		
Fairfax County	32	65		
Montgomery County	5	176		
Prince George's County	3	8		
M-NCPPC Prince George's	0	23		
Loudoun County	0	25		
District of Columbia	0	678		
City of Alexandria	0	55		
City of Greenbelt	0	7		
City of Falls Church	0	7		
<b>Total</b>	<b>40</b>	<b>1113</b>	<b>No Credit</b>	
<b>Low-VOC Paint (# of gallons per ozone season day)</b>				
Prince George's County	5			
M-NCPPC Prince George's	15			
Fairfax County	40			
MDOT	502.5			
Arlington County		0.63		
City of Alexandria		1.75		
City of Greenbelt		0.20		
Calvert County		1.25		
<b>Total</b>	<b>562.5</b>	<b>3.20</b>	<b>0.166 VOC</b>	<b>0.0009 VOC</b>
<b>Enhanced Enforcement (solvent machine replacement/idling)</b>				
Montgomery County	0	18 units	0	0.003-0.09 VOC
Loudoun County		No Idling Policy		
<b>TOTAL</b>				
NOx			<b>0.2 (a)</b>	<b>0.07</b>
VOC			<b>3.2 (a)</b>	<b>0.09</b>

(a) Total for 1-hour ozone SIP includes several programs not proposed for expansion in the 8-hour ozone SIP. These measures include Reformulated Consumer Products, Auxiliary Power Units for Locomotives, Gas Can Replacements, and Remote Sensing programs.

(b) 24,000 MWh in FY07 and 19,000 MWh in FY08.



# **Metropolitan Washington Air Quality Committee**

Suite 300, 777 North Capitol Street, N.E. Washington, D.C. 20002-4239 202-962-3358 Fax: 202-962-3203

January 26, 2007

Honorable Catherine Hudgins, Chair  
National Capital Region Transportation Planning Board  
777 North Capitol Street, NE  
Washington, D.C. 20002

Dear Chair Hudgins:

As TPB members know, the Metropolitan Washington Air Quality Committee (MWAQC) is preparing a State Implementation Plan (SIP) due to EPA by June 2007. The SIP is a plan to meet the Clean Air Act requirements for attaining EPA's 8-hour ozone National Ambient Air Quality Standard. A contingency plan is a SIP requirement (see attachment) and one that the Washington region is unable to meet without assistance from the transportation sector.

The SIP contingency plan will take effect in the event the region fails to meet the ozone standard by September 2009. EPA would notify the states in 2010 of the region's failure to meet the ozone standard and the region would be required, without further action by the States or EPA, to implement reduction measures providing 13-16 tons of VOC and/or NOx reductions by 2011.

It is very important that the contingency plan be included in the draft SIP by mid-February. In early March the draft SIP will go to MWAQC to be approved for public hearings. The draft SIP will be establishing new mobile source emissions budgets for 2008, a Reasonable Further Progress requirement, and for 2009, the attainment year.

MWAQC is working to finalize the list of emissions reductions for the contingency plan and to use as much reduction as can possibly be obtained from non-mobile measures. At this time, reductions from the non-mobile measures amount to about sixty to seventy percent of the required contingency reduction. It appears that mobile source contributions will be needed to meet the target amount of reductions. Mobile reductions of up to 9 tons per day of NOx will be needed to meet the target for contingency. The exact amount of reductions will depend on EPA decisions regarding credit for the proposed non-mobile measures.

Based on discussions with EPA, state Departments of Transportation, and TPB staff, we believe that considerable mobile NOx reductions on the order of 14 tons per day will be generated between 2009 and 2010 in the Washington region. These mobile NOx reductions are benefits from currently adopted federal vehicle and fuel technology control standards. A part of these of these reductions, up to 9 tons per day of NOx could be credited towards the total amount of contingency reductions for the SIP.

The SIP process for establishing mobile NOx credits for contingency would be to set new emissions budgets for the mobile sector for 2010. The new mobile emissions budgets would be the 2009 mobile budgets less the amount of NOx reductions set aside for contingency. The additional NOx reductions will be needed only if the region does not attain the 8 hour ozone standard by September 2009 and is notified by the EPA to implement the contingency measures in the SIP. Consultations with EPA staff indicate that this approach would be allowed.

On behalf of MWAQC, I ask your support for this proposal and ask you to authorize COG's Department of Transportation Planning staff to work with MWAQC staff to finalize the contingency plan element of the 8-hour ozone SIP including new 2010 mobile source emissions budgets. Timing is of the essence in order to complete the SIP by the deadline. Please respond no later than February 21, 2007, so that MWAQC can finalize the draft SIP at its March 15, 2007 meeting.

Thank you for considering this request to contribute mobile emissions reductions to the SIP in the event that the region does not attain the 8-hour ozone standard. As always, we appreciate your contributions to improving the air quality in the Metropolitan Washington region.

Sincerely,

A handwritten signature in black ink that reads "Nancy Floreen". The signature is written in a cursive, flowing style.

Nancy Floreen, Chair  
Metropolitan Washington Air Quality Committee

## **Attachment**

### **Clean Air Act Amendments of 1990**

CAA 182(c)(9) "Contingency provisions. In addition to the contingency provisions required under section 172(c)(9), the plan revision shall provide for the implementation of specific measures to be undertaken if the area fails to meet any applicable milestone. Such measures shall be included in the plan revision as contingency measures to take effect without further action by the State or the Administrator upon a failure by the State to meet the applicable milestone."

### **EPA Guidance**

"The CAAA preamble requires that the contingency measures generally must provide reductions of 3 percent of the emissions from the adjusted base year inventory. The reductions must be achieved in the year following that in which the failure has been identified. Three percent represents one year's worth of reductions under the post 1996 rate-of-progress requirement. EPA has determined that States must adopt a minimum of 0.3 percent in VOC measures of the 3 percent contingency measure requirement to be legally defensible. The minimum contingency plan could contain up to 2.7% of the baseline NOx emissions." (appendix D of the Post-1996 Rate of Progress Plan and Attainment Demonstration Guidance).