

ITEM 12 - Information

May 21, 2003

Briefing on Draft Scope of Work for the Air Quality Conformity Assessment for the 2003 CLRP and FY 2004-2009 TIP

Staff

Recommendation: Receive briefing on the attached draft scope of work for the air quality conformity assessment for the 2003 CLRP and FY 2004-2009 TIP.

Issues: None

Background: The Board will be asked to approve the scope of work at its June 18, 2003 meeting. The TPB Technical Committee was briefed on this scope of work at its meeting on April 4.

The scope of work presents an outline of the process and analytical activities to perform the air quality conformity analysis as prescribed in Environmental Protection Agency (EPA) regulations.

**AIR QUALITY CONFORMITY ASSESSMENT:
2003 CONSTRAINED LONG RANGE PLAN AMENDMENTS AND
FY2004-2009 TRANSPORTATION IMPROVEMENT PROGRAM**

SCOPE OF WORK

I. INTRODUCTION

Projects solicited for the 2003 Constrained Long Range Plan (CLRP) and the FY2004-2009 Transportation Improvement Program (TIP) are scheduled to be finalized at the May 21, 2003 TPB meeting. This scope of work reflects the tasks and schedule designed for the air quality conformity assessment leading to adoption of the plan and program in October 2003.

The plan and program must meet air quality conformity regulations: (1) as published by the Environmental Protection Agency (EPA) in the November 24, 1993 Federal Register, and (2) as subsequently amended, most recently on August 15, 1997, and (3) as subsequently revised through court action on March 2, 1999, with follow-up FHWA/FTA and EPA interim guidance on May 7 and May 14, 1999, respectively. These regulations specify both technical criteria and consultation procedures to follow in performing the assessment. Due to: (1) EPA's release of Mobile6 in January 2002, and (2) a court decision in July 2002 vacating EPA's previous state implementation plan (SIP) approval and associated mobile source emissions budgets for the region, this work will be done in concert with the Metropolitan Washington Air Quality Committee (MWAQC)'s required development of a 'severe area' SIP and mobile emissions budgets. In this regard MWAQC and TPB formally adopted coordinated work programs and schedules to meet all SIP and conformity requirements.

This scope of work provides a context in which to perform the conformity analyses and presents an outline of the work tasks required to address all regulations currently applicable.

II. REQUIREMENTS AND APPROACH

A. Criteria (See Exhibit 1)

As described in the 1990 Clean Air Act Amendments, conformity is demonstrated if transportation plans and programs:

1. Are consistent with most recent estimates of mobile source emissions,

2. Provide expeditious implementation of TCMs, and
3. Contribute to annual emissions reductions.

B. Approach The analytical approach is similar to that being applied and documented in the development of the Washington area's severe area SIP. In addition to the highlighted elements below, explicit inputs include: a summary list of major policy and technical input assumptions, shown as Attachment A; and all transportation network elements which will be finalized at the May 21, 2003 TPB meeting.

1. Action scenarios for each forecast year, with parallel efforts to analyze transportation emissions reduction measures (TERMs). (Analysis of TERMS is ongoing within TPB's mobile source emissions planning activities, with oversight from the Travel Management Subcommittee.)
2. Regionally significant projects
3. Round 6.3 Cooperative Forecasts
4. Expanded cordon (2191 zone) networks and model set (Methodology as described in the Metropolitan Washington Council of Governments, COG/TPB Travel Forecasting Model, Version 2.1/TP+, Release C, Calibration Report (December 23, 2002) and subsequent refinements from previous air quality conformity analysis. Subsequent refinements include transit "capacity constraint" procedures as described in Appendix A of the October 18, 2000 air quality conformity report, the explicit coding of ramps, and the use of updated air passenger survey data and forecasts
5. MOBILE6 model emission factors, consistent with the procedures utilized to establish the latest VOC and NO_x mobile source emissions budgets within the severe area SIP
6. Refinements developed as part of the new SIP include: use of 2002 vehicle registration data for all jurisdictions; updated VMT mix procedures using national trends in vehicle fleet characteristics together with local data on light duty versus heavy duty vehicle use; updated databases for public transit and school buses, park and ride lot use, and travel on local roads; and post-processor estimation
7. VOC, NO_x and CO (wintertime) emissions budgets
8. MSA-based geography

III. CONSULTATION

1. Execute TPB consultation procedures as outlined in the consultation procedures report adopted by the TPB on May 20, 1998.
2. Participate in meetings of MWAQC, its Technical Advisory Committee and its Conformity Subcommittee to discuss the scope of work activities, TERM development process, and other elements as needed; discuss at TPB meetings or forums, as needed, the following milestones:
 - Project solicitation
 - Scope of work
 - TERM proposals
 - Project submissions: documentation and comments
 - Analysis of TERMS, list of mitigation measures
 - Conformity assessment: documentation and comments
 - Process: comments and responses

IV. WORK TASKS

1. Receive project inputs from programming agencies and organize into conformity documentation listings (endorsement of financially constrained project submissions scheduled for May 21, 2003)
 - Project type, limits, NEPA approval, etc.
 - Phasing with respect to forecast years
 - Transit operating parameters, e.g. schedules, service, fares
 - Action scenarios
2. Utilize Round 6.3 Cooperative Forecasts
 - Households by auto ownership, population and employment
 - Zonal data files
3. Utilize 1990 base conditions developed in the severe area SIP process
4. Prepare forecast year highway, HOV, and transit networks
 - Update database
 - Update GIS highway network
 - Filter database to create 2005, 2015, 2025 and 2030 networks
 - Rebuild networks for modeling
 - Update / edit transit files (including transit elements for service through 12/2002)

- Utilize fare matrices reflecting fare increases specified by WMATA, MARC and VRE
5. Prepare 2005 ozone attainment year travel and emissions estimates
 - Execute travel demand modeling
 - Calculate emissions
 6.
 - Prepare 2015 CLRP conditions
 - Tasks as in year 2005 analysis
 - Perform transit “capacity constraint” procedures
 7. Prepare 2025 CLRP conditions
 - Tasks as in year 2015 analysis
 8. Prepare 2030 CLRP conditions
 - Tasks as in year 2025 analysis
 9. Identify extent to which TIP and plan provide for expeditious implementation of TCMs contained in state implementation plans and emissions mitigation requirements of previous TIP and CLRP commitments (TERMs)
 - In the CLRP / TIP solicitation document staff identified previous TCM and TERM commitments and requested a status report from the implementing agencies
 - Staff will review these reports as they are received and update the TERM tracking sheet that was included in the July 31, 2002 air quality conformity report
 - The status reports and the updated TERM tracking sheet will be included in the air quality conformity report.
 10. Coordinate / analyze emissions reductions associated with CMAQ and similar projects
 - Obtain project-specific emissions reductions from programming agencies
 - Summarize VOC and NOx reductions for each milestone year
 - With oversight from the Travel Management Subcommittee, propose and analyze additional measures for their emissions benefits, costs, cost effectiveness, and other evaluation criteria
 11. Analyze results of above technical analysis
 - Reductions from 1990 base

- VOC, NOx and CO emissions budgets
- With oversight from the Travel Management Subcommittee, the Technical Committee and the TPB, identify and recommend additional measures should the plan or program fail any test and incorporate

12. Assess conformity and document results in a report

- Document methods
- Draft conformity report
- Forward to technical committees, policy committees, and EPA
- Make available for public and interagency consultation
- Receive comments
- Address comments and present to TPB for action
- Finalize report and forward to FHWA, FTA and EPA

V. SCHEDULE

The schedule for the execution of these work activities is contained within the air quality conformity schedule in Exhibit 2. The time line shows completion of the analytical tasks, preparation of a draft report, public and interagency review, response to comments and action by the TPB in October, 2003.

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Exhibit 1

Table 1 -- Conformity Criteria

All Actions at all times:

Sec. 93.110	Latest planning assumptions.
Sec. 93.111	Latest emissions model.
Sec. 93.112	Consultation.

Transportation Plan:

Sec. 93.113(b)	TCMs.
Sec. 93.118 or Sec. 93.119	Emissions budget or Emission reduction.

TIP:

Sec. 93.113(c)	TCMs.
Sec. 93.118 or Sec. 93.119	Emissions budget or Emission reduction.

Project (From a Conforming Plan and TIP):

Sec. 93.114	Currently conforming plan and TIP.
Sec. 93.115	Project from a conforming plan and TIP.
Sec. 93.116	CO and PM10 hot spots.
Sec. 93.117	PM10 control measures.

Project (Not From a Conforming Plan and TIP):

Sec. 93.113(d)	TCMs.
Sec. 93.114	Currently conforming plan and TIP.
Sec. 93.116	CO and PM10 hot spots.
Sec. 93.117	PM10 control measures.
Sec. 93.118 or Sec. 93.119	Emissions budget or Emission reduction.

Sec. 93.110 Criteria and procedures: Latest planning assumptions.

The conformity determination must be based upon the most recent planning assumptions in force at the time of the conformity determination.

Sec. 93.111 Criteria and procedures: Latest emissions model.

The conformity determination must be based on the latest emission estimation model available.

Sec. 93.112 Criteria and procedures: Consultation.

Conformity must be determined according to the consultation procedures in this subpart and in the applicable implementation plan, and according to the public involvement procedures established in compliance with 23 CFR part 450.

Sec. 93.113 Criteria and procedures: Timely implementation of TCMs.

The transportation plan, TIP, or any FHWA/FTA project which is not from a conforming plan and TIP must provide for the timely implementation of TCMs from the applicable implementation plan.

Sec. 93.114 Criteria and procedures: Currently conforming transportation plan and TIP.

There must be a currently conforming transportation plan and currently conforming TIP at the time of project approval.

Sec. 93.115 Criteria and procedures: Projects from a plan and TIP.

The project must come from a conforming plan and program.

Sec. 93.116 Criteria and procedures: Localized CO and PM10 violations (hot spots).

The FHWA/FTA project must not cause or contribute to any new localized CO or PM10 violations or increase the frequency or severity of any existing CO or PM10 violations in CO and PM10 nonattainment and maintenance areas.

Sec. 93.117 Criteria and procedures: Compliance with PM10 control measures.

The FHWA/FTA project must comply with PM10 control measures in the applicable implementation plan.

Sec. 93.118 Criteria and procedures: Motor vehicle emissions budget.

The transportation plan, TIP, and project not from a conforming transportation plan and TIP must be consistent with the motor vehicle emissions budget(s) in the applicable implementation plan (or implementation plan submission).

Sec. 93.119 Criteria and procedures: Emission reductions in areas without motor vehicle emissions budgets.

The transportation plan, TIP, and project not from a conforming transportation plan and TIP must contribute to emissions reductions.

NOTE: See EPA's August 15, 1997 conformity regulations for the full text associated with each section's requirements.

Exhibit 2
YEAR 2003 CLRP AND FY 2004-2009 TIP
AIR QUALITY CONFORMITY SCHEDULE

*December 18, 2002	TPB Reviews Draft Solicitation Document
*January 15, 2003	TPB Reviews Draft Solicitation Document
*February 19, 2003	TPB Releases Final Solicitation Document
*March 19, 2003	TPB Receives Status Report on Project Submissions
March 28, 2003	DEADLINE: Implementing Agencies Complete Electronic Submissions of Project Information to staff - including CMS, CLRP, and TIP Data. Also Deadline to Submit Transportation Emission Reduction Measures (TERM) Analyses and previously implemented TERM status report
April 10, 2003	CLRP and TIP Project Submissions Released for Public Comment and Inter-Agency Review
May 16, 2003	Public Comment Period Ends for Project Submissions
*May 21, 2003	TPB Reviews Public Comments, Approves Project Submissions for inclusion in the Air Quality Conformity Analysis for CLRP and TIP
*July 16, 2003	TPB Receives Briefing on Draft Air Quality Conformity Determination, CLRP and TIP Documents
September 5, 2003	Draft Air Quality Conformity Determination, Draft Year 2003 CLRP, and Draft FY 2004-2009 TIP Released for Public Comment and Inter-Agency Review
*September 17, 2003	TPB Receives Briefing on Draft Air Quality Conformity Determination, CLRP and TIP Documents which were Released for Public Comment
October 3, 2003	Review of Comments Received to Date and Draft Staff Responses at TPB Program Committee Meeting
October 6, 2003	Public Comment Period Ends for Draft Documents
*October 15, 2003	TPB Reviews Public Comments on Draft Documents, Approves Responses to Comments, and Adopts the Air Quality Conformity Determination, the Year 2003 CLRP and FY 2004-2009 TIP
*TPB Meeting	

WORK SCOPE ATTACHMENT A

5/14/03 DRAFT

POLICY AND TECHNICAL INPUT ASSUMPTIONS AIR QUALITY CONFORMITY ANALYSIS OF 2003 CLRP AND FY2004-09 TIP

1. Land Activity

- Round 6.3 Cooperative Forecasts

2. Policy and Project Inputs

- Highway, HOV and transit projects and operating parameters, including fare increases specified by WMATA, MARC and VRE
- Financially constrained project submissions to be advanced by the TPB on 5/21/2003

3. Travel Demand Modeling Methods

- 'Expanded cordon' (December, 2002 'Version 2.1 Travel Model)
- I-66 (inside the beltway) at HOV-3 in 2010
- Transit "capacity constraint" procedures

4. Emission Factors

- Emission factors methods as developed and applied in the severe area SIP:
MOBILE6, 2002 registration data, VMT mix specific to each analysis year
- Enhanced I/M in DC, MD, and VA, using state-specified standards
- No oxygenated fuels assumed for wintertime carbon monoxide conditions

5. Emissions Modeling Methods / Credits

- Updated post-processor methods as developed in the severe area SIP
- MSA geography

6. Conformity Assessment Criteria

- 8/15/97 EPA regulations (as modified by the 3/2/99 court decision and 5/7/99 FHWA/FTA interim guidance, and 5/14/99 EPA interim guidance), including 1/1/95 technical requirements; use of forthcoming severe area SIP mobile source emissions budgets
- Analysis years: 2005, 2015, 2025, 2030