

ITEM 8 – Action
March 16, 2016

Briefing on Draft Scope of Work for the
Air Quality Conformity Analysis of the
2016 CLRP Amendment and the FY 2017-2022 TIP

Staff

Recommendation: Approve scope of work

Issues: None

Background: At the February 17 meeting, the board was briefed on the draft scope of work for the air quality conformity analysis of the 2016 CLRP Amendment and FY 2017-2022 TIP, which was released for a 30-day public comment period that ended March 12. At the March 16 meeting the board will be briefed on the comments received and recommended responses, and asked to approve the scope of work for the air quality conformity analysis of the 2016 CLRP Amendment and FY 2017-2022 TIP.

AIR QUALITY CONFORMITY ANALYSIS: 2016 CONSTRAINED LONG RANGE PLAN AND FY2017-2022 TRANSPORTATION IMPROVEMENT PROGRAM

SCOPE OF WORK

I. INTRODUCTION

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

Projects solicited for the 2016 Constrained Long Range Plan (CLRP) and FY2017-2022 Transportation Improvement Program (TIP) are scheduled to be finalized at the March 16, 2016 TPB meeting. This scope of work reflects the tasks and schedule designed for the air quality conformity analysis leading to adoption of the plan on November 16, 2016. This work effort addresses requirements associated with attainment of the ozone standards (volatile organic compounds (VOC) and nitrogen oxides (NO_x) as ozone precursor pollutants), and fine particles (PM_{2.5}) standards (direct particles and precursor NO_x). The region has reached the end of the maintenance period for wintertime carbon monoxide (CO), and is no longer required to include the pollutant in conformity analyses.

The plan must meet air quality conformity regulations: (1) as originally published by the Environmental Protection Agency (EPA) in the November 24, 1993 Federal Register, and (2) as subsequently amended, most recently on March 14, 2012, and (3) as detailed in periodic FHWA/FTA and EPA guidance. These regulations specify both technical criteria and consultation procedures to follow in performing the analysis.

II. FEDERAL REQUIREMENTS

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
3. Contribute to annual emissions reductions.

The federal requirements governing air quality conformity compliance are contained in §93.110 through §93.119 of the Transportation Conformity Regulations (printed April 2012), as follows:

| CONFORMITY CRITERIA & PROCEDURES | |
|---|---|
| All Actions at all times | |
| §93.110 | Latest Planning Assumptions |
| §93.111 | Latest Emissions Model |
| §93.112 | Consultation |
| §93.113 | TCMs |
| §93.114 | Currently conforming Plan and TIP |
| §93.115 | Project from a conforming Plan and TIP |
| §93.116 | CO, PM10 and PM2.5 hot spots |
| §93.117 | PM10 and PM2.5 Control Measures |
| §93.118 and/or §93.119 | Emissions Budget and/or Interim Emissions |

§ 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.

§ 93.111 Criteria and procedures: Latest emissions model - The conformity determination must be based on the latest emission estimation model available.

§ 93.112 Criteria and procedures: Consultation – The 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.

§ 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.

§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.

§93.115 Criteria and procedures: Projects from a plan and TIP - The project must come from a conforming plan and program.

§93.116 Criteria and procedures: Localized CO, PM10, and PM2.5 violations (hot spots) -The FHWA/FTA project must not cause or contribute to any new localized CO, PM10, and/or PM2.5 violations or increase the frequency or severity of any existing CO, PM10, and /or PM2.5 violations in CO, PM10, and PM2.5 nonattainment and maintenance areas.

§93.117 Criteria and procedures: Compliance with PM10 and PM2.5 control measures -The FHWA/FTA project must comply with PM10 and PM2.5 control measures in the applicable Implementation Plan.

§93.118 Criteria and procedures: Motor vehicle emissions budget - The transportation plan, TIP, and projects must be consistent with the motor vehicle emissions budget(s).

§93.119 Criteria and procedures: Interim emissions in areas without motor vehicle budgets - The FHWA/FTA project must satisfy the interim emissions test(s).

Assessment Criteria:

- Ozone season pollutants will be assessed by comparing the forecast year pollutant levels to the most recently approved 8-hour ozone area VOC and NOx mobile emissions budgets. The 2009 Attainment and 2010 Contingency budgets were deemed adequate for use in conformity by EPA in February 2013. These budgets were submitted to EPA by the Metropolitan Washington Air Quality Committee (MWAQC) in 2007 as part of the 8-hour ozone State Implementation Plan (SIP).

- PM2.5 pollutants will be assessed by comparing the forecast year pollutant levels to the mobile budgets in the PM2.5 Maintenance Plan. A PM2.5 Maintenance Plan was approved by EPA effective November 5, 2014. The region is currently preparing new mobile budgets for an updated PM2.5 Maintenance Plan. If those mobile budgets are submitted to EPA, and found adequate or are approved prior to the completion of this analysis, those budgets will be used to assess conformity of the PM2.5 pollutants.

III. POLICY AND TECHNICAL APPROACH

The table below summarizes the key elements of the Policy & Technical Approach:

| | Ozone | Fine Particles |
|-------------------------------------|---|---|
| Pollutant | VOC, NOx | Direct PM2.5, Precursor NOx |
| Emissions Model | MOVES2014a | |
| Conformity Test | <u>Budget Test:</u> Using mobile budgets most recently approved by EPA. 2009 attainment and 2010 contingency budgets found adequate for use in conformity by EPA in Feb. 2013. All budgets were set using Mobile6 emissions model and submitted to EPA in 2007. | <u>Budget Test:</u> Using mobile budgets established in the PM _{2.5} Maintenance Plan approved by EPA in 2014. All budgets set using MOVES 2010a emissions model. Updated budgets are currently being developed using MOVES2014. If those are approved or found adequate by EPA prior to the completion of the analysis, the updated budgets will be used. |
| Emissions Analysis Timeframe | Daily | Annual |
| Vehicle Fleet Data | 2014 vehicle registration data for all jurisdictions | |
| Geography | 8-hour ozone non-attainment area | 8-hour ozone non-attainment area less Calvert County |
| Network Inputs | Regionally significant projects | |
| Land Activity | Cooperative Forecasts Round 9.0 | |
| HOV/HOT | VA: All HOV 2+/HOT 2+ facilities become HOV 3+/HOT 3+ in 2020 and beyond MD: All HOV facilities remain HOV2+ through 2040 | |
| Transit Constraint | Transit “capacity constraint” procedures- 2020 constrains later years | |
| Analysis Years | 2016, 2017, 2020, 2025, 2030, 2040 | |
| Modeled Area | 3,722 TAZ System | |
| Travel Demand Model | Version 2.3.57a or latest | |

NOTE: Highlights reflect changes since the 2015 CLRP conformity analysis

IV. CONSULTATION

The TPB adheres to the specifications of the consultation procedures (as outlined in the consultation procedures report adopted by the TPB on May 20, 1998). The TPB will participate in meetings of MWAQC, its Technical Advisory Committee, and its Conformity Subcommittee to discuss the Scope of Work, TERMS development process, and other elements as needed. The TPB will discuss at meetings or forums, as needed, the following milestones:

- CLRP & TIP Call for Projects
- Scope of work
- TERM proposals
- Project submissions: documentation and comments
- Analysis of TERMS, list of mitigation measures
- Conformity analysis: documentation and comments
- CLRP Performance
- Process: comments and responses

V. WORK TASKS

The work tasks associated with the 2016 CLRP air quality conformity analysis are as follows:

1. Receive project inputs from programming agencies and organize into conformity documentation listings by:
 - Project type, limits, etc.
 - Phasing with respect to forecast years
 - Transit operating parameters, e.g., schedules, service
2. Update Travel Model Base Transit Service to reflect:
 - Service current to December 2015
 - Fares current to January 2016
3. Review and Update Land Activity files to reflect Round 9.0 Cooperative Forecasts with respect to:
 - Zonal data files
 - Employment Data Census Adjustment
 - Households by auto ownership, size and income
 - Coordination with agencies outside the MWCOG Cooperative Forecast area (BMC, FAMPO, C-SMMPO etc.)
 - Exogenous Travel (external, through trips etc.)
4. Prepare forecast year highway, HOV, and transit networks including regionally significant projects, as follows:
 - 2016, 2017, 2020, 2025, 2030, and 2040 highway networks
 - 2016, 2017, 2020, 2025, 2030, and 2040 transit network input files
 - Update highway tolls, as necessary

5. Execute travel demand modeling for years 2016, 2017, 2020, 2025, 2030, and 2040
6. Derive Mobile Emissions Estimates for years 2016, 2017, 2025, 2030, and 2040
7. Provide emissions reductions estimates for TERMS
8. Summarize key inputs and outputs (VMT, mode share, emissions, etc.) of the conformity determination for use in the CLRP Performance Analysis
9. Assess conformity and document results in a report
 - Document methods
 - Draft conformity report
 - Forward to technical committees, policy committees
 - Make available for public and interagency consultation
 - Receive comments
 - Respond to comments and present to TPB for action
 - Finalize report and forward to FHWA, FTA, and EPA

SCHEDULE FOR DEVELOPMENT & ADOPTION

of the 2016 Amendment to the Financially Constrained Long-Range Transportation Plan (CLRP)
& FY 2017-2022 Transportation Improvement Program (TIP)

| | | |
|------|---------------|---|
| 2015 | November | TPB is briefed on the draft Call for Projects document and summary |
| | December | TPB releases final Call for Projects. Transportation agencies begin |
| | January 22 | DEADLINE: Transportation agencies complete online submission of draft project inputs. |
| | February 5 | Technical Committee reviews draft CLRP & TIP project submissions and draft Scope of Work for the Air Quality Conformity Analysis. |
| | February 11 | CLRP & TIP project submissions and draft Scope of Work released for 30-day comment period. |
| | February 17* | TPB is briefed on project submissions and draft Scope of Work. |
| | March (TBD) | TPB staff briefs Metropolitan Washington Air Quality Committee Technical Advisory Committee (MWAQC TAC) on submissions and Scope of Work. |
| | March 12 | Comment period ends. |
| | March 16* | TPB reviews comments and is asked to approve project submissions and draft Scope of Work. |
| 2016 | May 6 | DEADLINE: Transportation agencies finalize CLRP forms (including Congestion Management Documentation forms where needed) and inputs to the FY 2017-2022 TIP. Submissions must not impact conformity inputs. Note that the deadline for changes affecting conformity inputs was January 22, 2016. |
| | July 14 | Public Forum on the development of the FY 2017-2022 TIP. |
| | October 7 | Technical Committee reviews draft CLRP & TIP and Conformity Analysis. |
| | October 13 | Draft CLRP, TIP and Conformity Analysis are released for 30-day comment period at Citizens Advisory Committee (CAC) meeting. CLRP Performance Analysis also published. |
| | October 19* | TPB is briefed on the draft CLRP & TIP and Conformity Analysis. |
| | October (TBD) | TPB staff briefs MWAQC TAC on the draft CLRP & TIP and Conformity Analysis. |
| | November 12 | Comment period ends. |
| | November 16* | TPB reviews comments and responses to comments, and is presented with the draft CLRP & TIP and Conformity Analysis for adoption. |

* Regular monthly TPB meeting