National Capital Region
Transportation Planning Board

DRAFT 3/9/2017

AIR QUALITY CONFORMITY ANALYSIS: VDOT AND MDOT AMENDMENT TO THE 2016 CONSTRAINED LONG RANGE PLAN

SCOPE OF WORK

I. INTRODUCTION

The Virginia Department of Transportation (VDOT) and the Maryland Department of Transportation (MDOT) have requested an amendment to the 2016 Constrained Long Range Plan (CLRP). The VDOT update includes the construction of an additional off-ramp from the I-95 High Occupancy Toll (HOT) lanes in southern Prince William County, and modifications to the I-66 Outside the Beltway HOT lanes project (two alternatives). The MDOT update involves a change in the completion date for the construction of a new Governor Harry Nice bridge in Charles County, Maryland. The proposed changes affect the air quality conformity analysis, and will therefore require a new demonstration of air quality conformity before they can be adopted as Plan elements by the Transportation Planning Board (TPB).

VDOT is proposing to construct an additional northbound off-ramp from the I-95 HOT lanes to serve the area near the Marine Corps Base Quantico in Prince William County. The new ramp would provide direct access from the northbound HOT lanes to Russell Road.

VDOT is also proposing modifications to the I-66 outside the Beltway HOT lanes project to reflect changes to the Commonwealth Transportation Board's (CTB) "preferred alternative", which is the alternative included in the 2016 CLRP. VDOT allowed bidders to either provide a proposal for the CTB's preferred alternative, or to provide a proposal with variations to the CTB's preferred alternative. The winning bidder proposed modifications to the CTB's preferred alternative, which VDOT is proposing to include in the CLRP as the first alternative. VDOT and the developer are also considering some additional access points, and are requesting that the TPB include a second alternative in the air quality conformity analysis. The Access Update Option A reflects the winning bidder's technical proposal. The Access Update Option B includes the access points in Option A, plus the potential additional access points that are currently under consideration by the developer and VDOT.

The MDOT project involving the construction of a new 4-lane Governor Harry Nice bridge to replace the current 2-lane structure is already included in the current 2016 Constrained Long Range Plan (CLRP). MDOT is proposing modifications to the construction timeline to reflect a completion date of 2023 instead of 2030.

This scope of work reflects the tasks and schedule designed for the air quality conformity analysis leading to adoption of the plan amendment on October 18, 2017. This work effort addresses requirements associated with attainment of the ozone standard (volatile organic compounds (VOC) and nitrogen oxides (NOx) as ozone precursor pollutants).

The amended 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 assessment.

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. 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).

III. POLICY AND TECHNICAL APPROACH

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

Pollutants	Ozone Season VOC and NOx
Emissions Model	MOVES2014a
Conformity Test	Budget Test: 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.
Vehicle Fleet Data	2014 vehicle registration data for all jurisdictions
Geography	8-hour ozone non-attainment area
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	Metrorail "capacity constraint" procedures - 2020 constrains later years
Analysis Years	2025, 2030, 2040 for Alternatives A and B
Modeled Area	3,722 TAZ System
Travel Demand Model	Version 2.3.66 or latest

IV. CONSULTATION

A 30-day comment / interagency consultation period followed by response to comments will be provided for the following milestones:

- Project review & air quality conformity scope of work
- Conformity report

V. WORK TASKS

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

1. Prepare forecast year highway and transit networks:
   - 2025, 2030, 2040 for Options A and B

2. Execute travel demand modeling
   - 2025, 2030, 2040 for Options A and B

3. Estimate Mobile Emissions
   - 2025, 2030, 2040 for Options A and B

4. Analyze and summarize results

5. 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: OFF-CYCLE CONFORMITY ANALYSIS FOR THE VDOT AND MDOT AMENDMENT to the 2016 Constrained Long Range Plan (CLRP)

March 3	Tech Committee is briefed on off-cycle conformity analysis: Project inputs and draft Scope of Work
March 9	Project inputs and draft Scope of Work released for **30-day comment period**
March 15*	TPB is briefed on project inputs and draft Scope of Work
April 8	Comment period ends
April 19*	TPB reviews comments and is asked to approve project inputs and draft Scope of Work
September 8	Technical Committee reviews VDOT and MDOT Amendment to the 2016 CLRP and draft conformity analysis
September 14	VDOT and MDOT Amendment to the 2016 CLRP and draft Conformity Analysis are released for **30-day comment period** at Citizens Advisory Committee (CAC) meeting
September 20*	TPB is briefed on the VDOT and MDOT Amendment to the 2016 CLRP and draft Conformity Analysis
October 14	Comment period ends.
October 18*	TPB reviews comments and responses to comments, and is presented with the VDOT and MDOT Amendment to the 2016 CLRP and draft Conformity Analysis for adoption.

* Regularly scheduled TPB meeting.