



TPB Technical Committee
Item #3

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June 15, 2005

To: Transportation Planning Board

From: Ronald F. Kirby, Director *RFK*
Department of Transportation

Subject: Scope of Work for Modeling the Transportation and Air Quality Impacts of Proposed Department of Defense Recommendations on Base Realignment and Closure

On June 8, 2005 the COG Board adopted Resolution R19-05, which requested regional analysis of the impacts of the above-referenced project. The mailout material for Item 9 of today's TPB meeting includes information on this topic.

Attached is a draft scope of work for the TPB's Transportation and Air Quality analysis component of that work effort. Specifically, this scope outlines the modeling work referenced in Task II. of the draft "Proposed Work Program Tasks for COG/TPB Assessment of BRAC and DoD Security-Related Employment Changes In the Washington Region", which was attached to the COG resolution.

At today's TPB meeting staff will brief the Board on the work tasks and schedule contained in this scope.

Attachment

**ANALYSIS OF TRANSPORTATION AND AIR QUALITY IMPACTS
OF PROPOSED DEPARTMENT OF DEFENSE (DoD) RECOMMENDATIONS
TO THE BASE REALIGNMENT AND CLOSURE (BRAC) COMMISSION**

SCOPE OF WORK

I. INTRODUCTION

On May 18, 2005, the TPB was briefed on the Department of Defense (DoD) proposal pursuant to the BRAC program, and asked that staff examine options for analyzing the potential transportation impacts. On June 8, 2005, the COG Board of Directors adopted Resolution R19-05 endorsing a work program to undertake a comprehensive analysis of BRAC's impact on land use, transportation, air quality and economic and environmental issues in the Washington region, with analysis results due in July. TPB staff drafted this scope of work to identify the transportation modeling work and emissions analysis required to estimate the travel demand and air quality impacts associated with the proposed DoD changes.

This modeling work will focus on executing and comparing 2010 and 2020 Action scenarios to 2010 and 2020 Baseline scenarios. The Baseline scenarios for 2010 and 2020 include forecasts prepared assuming the 2004 Constrained Long Range Plan (CLRP) network elements and Round 6.4A Cooperative Forecasts; the Action scenarios will include the 2004 CLRP network elements in conjunction with the BRAC scenario land activity revisions. The 2010 analysis year was included explicitly in the 2004 CLRP update last year; 2020 conditions will need to be modeled to develop the 2020 Baseline scenario for this work.

This scope of work reflects the tasks and schedule designed to meet these objectives.

II. WORK TASKS

1. Obtain Revised Land Use and Identify Focus Areas of Analysis
 - Receive land use inputs at transportation analysis zone (TAZ) level from COG's planning department.
 - Prepare electronic data files in travel demand format for use in trip generation and subsequent steps.
 - Prepare focus areas (aggregations of transportation analysis zones) for each area impacted by base closings or relocations.

2. Develop and Compare 2010 Baseline and Action Scenarios
 - Summarize 2010 baseline travel conditions and VOC, NOx and Winter CO mobile emissions from last year's 2004 CLRP results, at the regional level and by focus area.
 - Execute regional travel demand modeling for the 2010 action scenario and apply Mobile6.2 emission factors to estimate mobile emissions.
 - Summarize 2010 action scenario travel conditions and VOC, NOx and Winter CO mobile emissions at the regional level and by focus area.

3. Develop and Compare 2020 Baseline and Action Scenarios
 - Prepare 2020 baseline travel conditions from 2004 CLRP network elements and compute mobile emissions.
 - Summarize 2020 baseline travel conditions and VOC, NOx and Winter CO mobile emissions at the regional level and by focus area.
 - Execute regional travel demand modeling for the 2020 action scenario and apply Mobile6.2 emission factors to estimate mobile emissions.
 - Summarize 2020 action conditions by travel and VOC, NOx and Winter CO mobile emissions at the regional level and by focus area.

4. Document Results
 - A. Produce Summaries and Maps that Compare Action Scenarios to Baseline Scenarios
 - Compare land use, trips and VMT at regional level.
 - Prepare summaries that reflect tripmaking patterns related to the focus areas as defined in step 1, expressed in trips, VMT and emissions.
 - Create GIS plots showing changes in accessibility to jobs as a result of changes in land use.

 - B. Prepare a summary report on technical methods and results.

5. Provide Results to, and Coordinate with, State and Local Transportation Planners
 - Provide results to state and local transportation planners for their use in assessing local transportation impacts.
 - Coordinate with state and local governments to estimate total additional transportation costs.

III. SCHEDULE

June 15, 2005	TPB reviews and approves draft and work scope; staff begins preparation work.
June 27, 2005	Staff receives land activity files and executes travel demand and emissions models.
July 8, 2005	TPB Technical Committee reviews draft results.
July 13, 2005	COG Board reviews draft results.
July 20, 2005	TPB Board reviews draft results.