

ITEM 8 - Action

March 18, 2009

Approval of Amendments to FY 2009 Unified Planning Work Program (UPWP), and Approval of FY 2009 UPWP Carryover Funding to FY 2010

Staff

Recommendation:

- Adopt resolution R15-2009 to amend the FY 2009 UPWP.
- Adopt resolution R16-2009 to approve the FY 2009 carryover funding for FY 2010.

Issues:

None

Background:

The Technical Committee at its March 6 meeting recommended that the attached amendments to the FY 2009 UPWP, together with the FY 2009 carryover funding to FY 2010 be presented for Board approval.

The final version of the FY 2010 UPWP will incorporate this carryover funding into the final work program to be submitted to the state departments of transportation and the Federal Highway and Transit Administrations.

**TPB R15-2009
March 18, 2009**

**NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD
777 North Capitol Street, N.E.
Washington, D.C. 20002**

**RESOLUTION TO AMEND THE FY 2009 UNIFIED PLANNING WORK PROGRAM TO
INCLUDE REVISED WORK STATEMENTS AND BUDGETS**

WHEREAS, the Joint Planning Regulations issued on February 14, 2007 by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) require a Unified Planning Work Program for Transportation Planning (UPWP); and

WHEREAS, the UPWP is required as a basis and condition for all funding assistance for transportation planning to state, local, and regional agencies by the FHWA and FTA; and

WHEREAS, the FY 2009 UPWP for the Washington Metropolitan Area was adopted by the TPB on March 19, 2008; and

WHEREAS, revised work statements and budgets for projects in the FY 2009 UPWP have been developed by staff , the District of Columbia Department of Transportation (DDOT), the Maryland Department of Transportation (MDOT), the Virginia Department of Transportation (VDOT), and the Washington Metropolitan Area Transit Authority (WMATA) to modify projects and identify funding which will be carried over into FY 2010, as described in the attached materials; and

WHEREAS, at its March 6, 2009 meeting, the Technical Committee reviewed the proposed revised work statements and budgets for projects in the FY 2009 UPWP and recommended approval by the TPB;

NOW, THEREFORE, BE IT RESOLVED THAT: THE NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD approves amendments to the FY 2009 Unified Planning Work Program for Transportation Planning to include revised work statements and budgets for the FY 2009 UPWP, as described in the attached Memorandum of March 18, 2009 entitled: "FY 2009 UPWP Amendments to Include Revised Work Statements and Budgets" (pages A1-through A-13).

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

M E M O R A N D U M

March 18, 2009

TO: Transportation Planning Board

FROM: Gerald Miller
Director, Program Coordination
Department of Transportation Planning

SUBJECT: FY 2009 UPWP Amendments to Include Revised Work Statements and Budgets

Attached are pages excerpted from the current FY 2009 UPWP indicating changes to the work statements and/or budgets for the following:

- 1.D. Financial Plan: Carry over \$50,000, which will be used by the consultant to complete the financial analysis to support the update of the 2010 CLRP. The schedule for completing this analysis has been delayed because the implementing agencies require more time to complete their revenue and expenditure forecasts through 2040. The financial analysis is scheduled to be complete in October 2009.
- 1.H. Transportation/Land Use Connection (TLC) Program: Carryover \$70,000, which will be used to fund the completion of four technical assistance projects that will begin in FY 2009 but will require additional time beyond June 30 to complete.
- 4.C. Models Development: Carryover \$150, 000, which is available due to the deferment of a consultant-assisted effort to support and facilitate the development of an advanced (tour-based/activity-based) travel demand model. Studies sponsored by the Association of Metropolitan Planning Organizations (AMPO) and the National Cooperative Highway Research Program have been initiated recently to assess the experience and documentation of other MPOs that have experience using these new models. Delaying this effort until FY 2010 will benefit from considering the information collected by these national studies.
- 5.B. Congestion Monitoring and Analysis: Carryover \$175,000, which is available due to a delay in starting the first year of collecting data on the

enhanced system of arterial highways. These data will be collected in FY 2010.

- 6. Technical Assistance

- < District: Carryover \$110,000 from two projects
- Maryland: Reduce budgets for six planning studies and carryover \$296,000
- Virginia: Carryover \$105,000 from two projects and amend the budgets of three projects.
- WMATA: Carryover \$16,499 from one project

The total FY 2009 funding to be carried over is \$972,499

Deletions are shown in strikeout and additions in **bold**.

PROPOSED AMENDMENTS TO THE FY 2009 UPWP

1. PLAN SUPPORT

D. FINANCIAL PLAN

As required under federal planning regulations, both the TIP and the CLRP must have a financial plan that demonstrates how they can be implemented and show the sources of funding expected to be made available to carry them out. A new financial analysis and plan for the 2006 CLRP update was completed in September 2006, including cost estimates for the new system expansion projects and revised cost estimates for system maintenance and rehabilitation. New revenue projections were also prepared. All cost and revenue estimates were in constant (2006) dollars through 2030. During FY 2008, the total expenditure and revenue estimates were revised to show year of expenditure dollars.

The project solicitation document for the 2009 CLRP requested that the implementing agencies review and revise the cost estimates for the system expansion projects. During FY 2009, the **first phase of the** financial plan for the 2010 CLRP will be prepared, including cost estimates in year of expenditure dollars for the new system expansion projects and revised cost estimates for system maintenance and rehabilitation. New revenue projections will also be prepared in year of expenditure dollars. All cost and revenue estimates will be through 2040. Consultant assistance for the plan preparation is anticipated.

The Transportation Improvement Program

The preparation of the financial plan for the FY 2010-2015 TIP will be similar to that for the FY 2009-14 plan. Since SAFETEA-LU funding is apportioned to states, financial summaries for all TIP projects from agencies in the District of Columbia, Maryland and Virginia as well as WMATA and other transit agencies will be prepared. All projects submitted by these agencies will be grouped by the proposed SAFETEA-LU program funding categories under Surface Transportation (Title I) and Transit (Title III).

The funds programmed in the TIP for each state by SAFETEA-LU program category will be compared with the information provided by the states and transit operators on the estimated available Federal and State funds for the program period. The funds programmed in the TIP for each state by SAFETEA-LU program category in the first and second years will be compared with the trends of the annual funding programmed in previous TIPs and with the funding reported in the annual listings of TIP projects that have federal funding obligated. Comparisons that indicate significant changes from past trends will be reviewed with the implementing agency to clarify the change. Implementing agencies will ensure that only projects for which construction and operating funds can reasonably be expected to be available will be included in the TIP. In the case of new funding sources, strategies for ensuring their availability will be identified by the implementing agency and included in the TIP. The product will be

a financial summary that focuses on the first two years of the six-year period of the TIP, and it will be incorporated as a main section of the TIP for review by the public and approval by the Technical Committee and the TPB.

Oversight:	Technical Committee
Cost Estimate:	\$134,000 \$84,000
Products:	Updated financial plans for draft 2009 CLRP and FY 2010-2015 TIP, First Phase of the Financial Plan for the 2010 CLRP
Schedule:	June, 2009

H. TRANSPORTATION/LAND USE CONNECTION (TLC) PROGRAM

This work activity strengthens the coordination between land use and transportation planning. Begun as a pilot in November 2006, the program established a clearinghouse to document national best practices as well as local and state experiences with land use and transportation coordination, and offers short-term technical assistance through consultant teams to local jurisdictions to advance their coordination activities. These activities make a positive impact on future transportation conditions in the Washington Region by helping communities locate housing and jobs closer together and promoting development closer to transit stations. This in turn helps the region address pressing issues like climate change through reducing vehicle miles traveled (VMT) and greenhouse gas emissions.

TPB staff will continue to provide the TPB and the Scenario Study Task Force with information about strategies used in other metropolitan areas to coordinate transportation and land-use planning and target transportation investment on the basis of regional goals. As the TLC Program grows and more planning projects are completed in more jurisdictions around the region, it may become appropriate to make identification of capital projects a more explicit priority of the TLC technical assistance projects, and seek the inclusion of these capital projects in the regional CLRP and TIP.

The following activities are proposed for FY 2009:

- Maintain and update the TLC Regional Clearinghouse and website
- Fund at least six technical assistance planning projects at a level of between \$10,000 and \$60,000 each, with consideration during project selection given to the local resources committed to the project. **Four technical assistance projects will be partially funded in FY 2009 and completed in FY 2010. The projects and their FY 2009 funding are the following:**

- NoMa BID, Gateway Transportation Enhancement \$30,000

- Frederick County, MD-355/MD-85 TOD Study \$30,000

-Greenbelt, Pedestrian and Bicycle Master Plan \$20,000

**-Prince George's County/Town of Cheverly, Non-motorize
Transportation Study/\$20,000**

- Work with local project leads and consultants to identify recommended implementation action steps in each planning project report, such as further study needs, more stakeholder collaboration, suggested land use or local policy changes, and transportation investment priorities. These will be compiled at the end of the technical assistance round into a single report that will be provided to the TPB.
- Prepare at least two implementation "toolkits" to address issues that have been identified as key to the success of local planning efforts and the implementation of regional goals, such as maintaining affordable housing in developing activity centers and addressing the different perspectives on density and congestion at the local and regional levels.
- Provide staff support for additional TLC Technical Assistance Projects to be conducted as part of the VDOT Multimodal Grant Program and for other projects where additional funding is provided by state or local agencies. The proposed funding level assumes the cost of TPB staff administration of some additional technical assistance projects funded through outside sources; if the TPB were to receive significantly more funding support for such projects, this administrative allocation may need to be revisited at a future date.

Oversight: TPB Technical Committee

Cost Estimate: ~~\$355,000~~ **\$285,000**

Products: Updated web-based clearinghouse, technical assistance provided by consultant teams to six localities, a summary report of technical assistance projects and implementation priorities, and two implementation issue toolkits.

Schedule: Technical assistance: November 2008-June 2009
Implementation toolkits: March 2009

4. DEVELOPMENT OF NETWORKS AND MODELS

C. MODELS DEVELOPMENT

The Models Development program serves to improve the TPB's travel forecasting practice on a continuing basis. The program encompasses short-term improvements to the TPB's existing travel model which can be implemented quickly, as well as longer term improvements that may require several years to become operational. Specific travel modeling improvements are identified on the basis of recommendations that result from periodic travel model reviews, from special needs identified by the TPB, or from methodological advances emerging from the research community.

Having completed the development in FY 2008 of the draft Version 2.3 travel demand model, incorporating a nested logit mode choice model and updated truck models, the FY 2009 models development activities will focus on completing sensitivity testing of the new model prior to applying it in the conformity analysis of the FY 2010-2015 TIP and 2009 Plan during 2009.

The TPB in recent years has maintained a task order consulting contract to perform a scan of best modeling practices across the U.S. TPB staff has found this type of arrangement to be especially valuable because it has informed us about the state of the practice and has also enabled the TPB to save staff resources that otherwise would have been spent doing our own independent research. Through competitive bidding, a new task order contract will be negotiated for FY 2009.

The arrival of a completed Household Travel Survey during FY2009, together with on-board bus and rail surveys, offers a good opportunity to tune up current model applications at TPB, reflecting new information about travel patterns in the region. Staff will employ these data to construct calibration files for use in models development activities.

~~While useful to the current model applications, these new data also present an opportunity to begin exploring development of a new generation of travel demand models. Sometimes referred to as tour-based and/or activity-base modeling, these new approaches are beginning to come into advanced practice at some MPOs. During FY 2009, a competitively-bid consultant contract will be initiated to begin assisting staff in the development of a new generation of travel demand models.~~

Air passenger travel in the Washington region is particularly complicated, given that area residents are served by three international airports. The airports are, of course, major traffic generators in the region. The dynamics underlying how individual airports are selected by travelers are difficult to forecast. Air passengers have a wide choice of public or private transportation options for getting to a selected airport. At present, simulated travel to and from the airports is based on travel patterns that have been observed in air passenger surveys and projected growth based on FAA enplanement projections. In recent years, TPB has monitored airport modeling techniques developed at other locations in order to improve the way that ground travel to the airports is treated in the regional model. This monitoring will continue during FY 2009. Additionally, the recently completed air passenger survey will be used to refresh the

current airport travel demand forecasts.

The TPB has played a leadership role in establishing a national forum comprised of travel modelers from across the U.S., in cooperation with the Association of Metropolitan Planning Organizations (AMPO). The forum has served to promote understanding between modelers regarding the travel forecasting methods presently being implemented at MPO's. It has also been established to develop guidelines for defining acceptable standards of practice. The forum, now known as the AMPO Travel Modeling Working Group, meets twice a year and has been steadily gaining members over the past few years. This activity will continue during FY2009.

Staff will continue to review best practice in travel demand modeling through participation in the Transportation Research Board and literature reviews. Staff will provide documentation for all products from the models development program.

Oversight: Travel Forecasting Subcommittee

Cost Estimate: \$1,071,200 **\$921,200**

Products: Recommendations for continued updating of the travel demand modeling process, documentation of all activities

Schedule: June 2009

5. TRAVEL MONITORING

B. CONGESTION MONITORING AND ANALYSIS

During FY 2008, staff completed the third year of the third cycle of arterial highway congestion monitoring on 365 miles of arterial highways. In FY 2009 staff will identify an enhanced system of arterial highways that are to be monitored by adding additional routes to the existing National Highway System of arterial highways. ~~Staff will start the first year of the enhanced monitoring program and collect data using both volunteers and paid drivers.~~ During Spring 2009, the data collected on the traditional system will be analyzed and a report on the findings of the FY 2009 survey will be prepared.

For the limited access highways in the region we perform an aerial survey to study the performance of the system during both peak period and off-peak periods. In FY 2008, vehicular density data were collected during the peak periods (am and pm peak). In FY 2009 the consultant will complete the data analysis, and prepare a DVD slide show of the findings. Staff will prepare a presentation based on the consultant report showing how weekday peak period congestion has changed over time in the region by comparing the Spring 2008 survey results with prior year surveys.

Oversight: Travel Forecasting Subcommittee

Cost Estimate: \$521,200
\$140,000 carryover from FY 2008
~~\$661,200 total~~ **\$486,200**

Products: Freeway System Peak Period Congestion Report -December
2008

Arterial Travel Time Report - June 2009

Schedule: June 2009.

V. TECHNICAL ASSISTANCE

A. DISTRICT OF COLUMBIA

DDOT Traffic Counts

The purpose of this task is to perform continuous 48-hour traffic volume machine counts at approximately 200 locations citywide. The District will provide the exact locations for these counts. The counts performed under this project are in addition to those covered by the HPMS three year cycle count program, and are part of DDOT's annual traffic volume map. These counts will include quality control checking and tabulation and analysis of data collected in FY 2009.

Cost Estimate: \$100,000
\$80,000 carryover from FY 2008
~~\$180,00 total~~ **\$130,000**

Product: Machine traffic counts

Schedule: June 2009

2009 Automobile Travel Time Survey

The purpose of this project is conduct travel time studies along seventeen major arterials in the District of Columbia during the evening rush hour period to gauge system performance in each corridor. This data will be used to compare with data collected from a similar study in 2002 to determine if conditions have improved or deteriorated in the survey corridors.

Cost Estimate: ~~\$80,000~~ **\$20,000**

Product: ~~Technical Report~~

Schedule: Data Collection - Spring 2009

TOTAL DISTRICT OF COLUMBIA COST ESTIMATE: \$311,868
\$102,000 carryover from FY
2008
\$413,868 total **\$303,868**

B. MARYLAND

SHA - Western Mobility / Capital Beltway Studies

This project represents system level forecasting work which is performed in support of ongoing SHA project planning activities. In recent years, COG staff developed and analyzed travel forecasts for various alternatives in each of these corridors. These activities will be continued within this category on a specific request basis, as tasks are received.

Cost Estimate: ~~\$75,000 carryover from FY 2008~~ **\$45,000**

MTA - Corridor Cities Transitway / Purple Line Transit

Recent activities on these project planning studies have primarily been conducted by consultants to the Maryland MTA. This project is designed to provide technical support to MTA and their consultants, including application of the primary travel demand models (assistance with development of model inputs, execution and evaluation of model outputs), incorporation of new transit analysis at the corridor level, and evaluation of results including through use of FTA's Summit model to compare results among the transit alternatives studied.

Cost Estimate: ~~\$50,000 carryover from FY 2008~~ **\$10,000**

Traffic Impacts

This project is designed to assess on a comprehensive scale the transportation impacts of development, through the analysis of such development at the local, subarea, corridor and regional levels. Different methods and evaluation criteria may be employed at each level of analysis to appropriately consider such impacts, ranging from delay at intersections for localized studies, to travel modeling and aggregate systems level impacts for larger projects. Study elements will be detailed in conjunction with SHA staff.

Cost Estimate: ~~\$110,000~~ **\$10,000**

Product: Technical reports

Project Evaluation

Maryland SHA requires quantified results on system performance benefits in order to

compare the relative merits of individual projects proposed for implementation or for use in refining the Maryland Highway Needs Inventory. Such results will assist in determining priorities among the projects to maximize the benefits of the transportation planning and programming process. Specific level of service, travel delay, and mobility criteria will be defined and estimated at the appropriate local, subarea, corridor and / or regional levels to enable a consistent assessment of specified projects.

Cost Estimate: ~~\$40,000~~ **\$0**

Product: Technical memo

Statewide Travel Demand Model

This project is designed to assist SHA and their consultants in their development of, and evaluation of results from, a statewide travel demand model. The model is being developed in order to analyze travel at a macroscopic level, i.e., statewide / multiple states, with a view to assessing impacts in Maryland of alternative growth scenarios and other forecast assumptions.

Cost Estimate: ~~\$45,000~~ **\$10,000**

Product: Technical memos

Monitoring Studies

This work effort is designed: (1) to provide SHA staff with information relating to the effectiveness of ongoing and planned regional congestion monitoring activities in the Maryland portion of the region, and (2) to examine the effectiveness of such programs, including the use of before and after studies (primarily through literature reviews and analysis of existing data rather than through new collection of primary data). TPB staff will periodically brief SHA staff to keep them informed of regional congestion monitoring activities and to discuss possible new initiatives in this area.

Cost Estimate: ~~\$50,000~~ **\$0**

TOTAL MARYLAND COST ESTIMATE: \$581,000
\$275,000 carryover from FY 2008
~~\$856,000~~ total **\$560,000**

C. VIRGINIA Program Development

This project is established to account for TPB staff time spent in developing scopes of work for requested projects and for administering the resultant work program throughout the year.

Work activities will involve meeting with VDOT and VDR&PT staff to discuss projects, draft and finalize work statements and tasks, create project accounts when authorized, and report progress on projects throughout the year.

Cost Estimate: ~~\$22,444~~ **\$7,444**

Product: scopes of work, progress reports

Schedule: on-going activity

Miscellaneous Services

A. ~~This work element provides VDOT and VDRPT with the ability to undertake limited scope studies and or data gathering activities identified during its regional and sub-regional planning activity during fiscal year 2009.~~

B. ~~The miscellaneous services account is also a mechanism established to address requests that are too small or too short-lived to warrant separate work scopes. Authorizations to execute specific tasks are usually given by fax; this is particularly useful for quick turnaround. Work items include: requests for hard copy, plots, tape, or diskettes of data from any of the planning work activities at COG, participation in technical review committees and tasks forces and execution of small technical studies.~~

Cost Estimate: ~~\$10,600~~ **\$0**

Schedule: on-going activity

High Occupancy / Toll (HOT) Lane Traffic Analyses

As requested by the Commonwealth, COG staff will perform traffic analyses of proposed I-95 / 395 HOT lane projects in order to assist decision-makers in evaluating the impacts of the proposed HOT lanes. The COG analysis will consider transit improvements (including commuter lots and expanded bus service).

Cost Estimate: ~~\$ 48,000~~ **\$73,600**

Products: Analysis results

Schedule: Fall, 2008 or Spring, 2009

Travel Forecast Model Refinements

Using results from the regional travel demand model and comparing the results with ground counts at two or three specific corridor segments of high interest (to be specified by VDOT), recommend refinements to the model to make it even more valuable to VDOT transportation planners and traffic forecasters in responding to location-specific feasibility questions from top VDOT management or local jurisdictions evaluating potential comprehensive plan changes.

Cost Estimate: \$38,000
 \$17,000 carryover from FY 2008
 \$55,000 total **\$0**

Product: study report with recommendations

Schedule: complete work by June 30, 2009

Data Mine State of the Commute Survey

Conduct in-depth analysis of the "State of the Commute" survey for the Northern Virginia jurisdictions. Gather input from the local TDM programs to provide data/reports for their specific needs, provide additional cross tabs not provided by the MWCOC reports such as comprehensive demographic analysis, local jurisdictional and regional trend analysis, and recommendations on how to improve local northern Virginia programs as well as the regional Commuter Connections program and products.

Cost Estimate: \$-50,000 **\$0**

Product: Analysis results and reports

Schedule: June, 2009

TOTAL VIRGINIA COST ESTIMATE: \$ 474,044
 \$67,000 carryover from FY 2008
 \$541,044 total **\$436,044**

D. WMATA

Miscellaneous Services

This miscellaneous account is a mechanism established to address requests which are too small or too short-lived to warrant separate work scopes. Past work has included requests for hard copy, plots, tape, or diskettes of data from any of the planning work activities at COG.

Cost Estimate: \$21,499 **\$5,000**

Schedule: on-going activity

TOTAL WMATA COST ESTIMATE: \$185,399
\$80,000 carryover from 2008
~~\$265,399 total~~ **\$248,900**

\$171,400
\$80,000 carryover from 2008
\$251,000 total

**TPB R16-2009
March 18, 2009**

**NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD
777 North Capitol Street, N.E.
Washington, D.C. 20002**

**RESOLUTION TO APPROVE
CARRYOVER FUNDING FROM FY 2009 TO THE FY 2010
UNIFIED PLANNING WORK PROGRAM (UPWP)**

WHEREAS, the Joint Planning Regulations issued February 14, 2007 by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) require a Unified Planning Work Program for Transportation Planning (UPWP); and

WHEREAS, the UPWP is required as a basis and condition for all funding assistance for transportation planning to state, local, and regional agencies by the FHWA and FTA; and

WHEREAS, the FY 2009 UPWP for the Washington Metropolitan Area was adopted by the TPB on March 19, 2008; and

WHEREAS, project work statements and budgets for carryover from FY 2009 to FY 2010 have been developed for four projects, and the District of Columbia Department of Transportation (DDOT), the Maryland Department of Transportation (MDOT), the Virginia Department of Transportation (VDOT) and the Washington Metropolitan Area Transit Authority (WMATA) Technical Assistance Programs;

NOW, THEREFORE, BE IT RESOLVED THAT: THE NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD approves the work statements and budgets for carryover funding from FY 2009 to FY 2010 as described in the attached Memorandum of March 18, 2009 entitled "FY 2009 Carryover Work Statements and Budgets for the FY 2010 UPWP" (pages B-1 through B-14).

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

MEMORANDUM

March 18, 2009

TO: Transportation Planning Board

FROM: Gerald Miller
Director, Program Coordination
Department of Transportation Planning

SUBJECT: FY 2009 Carryover Work Statements and Budgets for the FY 2010 UPWP

Attached are pages excerpted from the draft FY 2010 UPWP with changes and additions shown in **bold** to reflect the carryover funding from FY 2009 to FY 2010. The FY 2010 work elements affected by the FY 2009 carryover funding are as follows:

- 1.D. Financial Plan: Carry over \$50,000, which will be used by the consultant to complete the financial analysis to support the update of the 2010 CLRP. The schedule for completing this analysis has been delayed because the implementing agencies require more time to complete their revenue and expenditure forecasts through 2040. The financial analysis is scheduled to be complete in October 2009.
- 1.H. Transportation/Land Use Connection (TLC) Program: Carryover \$70,000, which will be used to fund the completion of four technical assistance projects that will begin in FY 2009 but will require additional time beyond June 30 to complete.
- 4.C. Models Development: Carryover \$150, 000, which is available due to the deferment of a consultant-assisted effort to support and facilitate the development of an advanced (tour-based/activity-based) travel demand model. Studies sponsored by the Association of Metropolitan Planning Organizations (AMPO) and the National Cooperative Highway Research Program have been initiated recently to assess the experience and documentation of other MPOs that have experience using these new models. Delaying this effort until FY 2010 will benefit from considering the information collected by these national studies.
- 5.B. Congestion Monitoring and Analysis: Carryover \$175,000, which is available due to a delay in starting the first year of collecting data on the enhanced system of arterial highways. These data will be collected in FY 2010.
- 6. Technical Assistance

- < District: Carryover \$110,000 from two projects
- Maryland: Reduce budgets for six planning studies and carryover \$296,000
- Virginia: Carryover \$105,000 from two projects and amend the budgets of three projects.
- WMATA: Carryover \$16,499 from one project

The total FY 2009 funding to be carriedover is \$972,499

The final version of the FY 2010 UPWP will combine the carryover funding and new funding into one work program for submission to FTA and FHWA. The proposed budget levels for these carryover projects are shown in Table A.

TABLE 1A DRAFT

PROJECT CARRYOVER FROM FY2009 TO FY2010 BY FUNDING SOURCE

WORK ACTIVITY	FY2009 FUNDS	FTA/STATE/ LOCAL	FHWA/STATE/ LOCAL
1. PLAN SUPPORT			
D. FINANCIAL PLAN	50,000	10,767	39,233
H. TLC PROGRAM	70,000	15,074	54,926
4. DEVELOPMENT OF NETWORKS AND MODELS			
C. MODELS DEVELOPMENT	150,000	32,302	117,698
5. TRAVEL MONITORING			
B. CONGESTION MONITORING & ANALYSIS	175,000	37,686	137,314
Total	445,000	91,142	349,171
6. TECHNICAL ASSISTANCE			
A. District of Columbia	110,000	19,115	90,885
B. Maryland	296,000	65,213	230,787
C. Virginia	105,000	24,798	80,202
D. WMATA	16,499	16,499	
Subtotal	527,499	125,625	401,874
Grand Total	972,499	216,767	751,045
TOTAL	972,499	216,767	751,045

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CARRYOVER WORK STATEMENTS AND FUNDING FOR THE FY 2010 UPWP

2. COORDINATION PLANNING

D. FINANCIAL PLAN

As required under federal planning regulations, both the TIP and the CLRP must have a financial plan that demonstrates how they can be implemented and show the sources of funding expected to be made available to carry them out. A new financial analysis **by the consultant** and plan for the 2010 CLRP update is scheduled to be completed by ~~September~~ **November** 2009, including new federal and state revenue projections, revised cost estimates for new system expansion projects, and revised cost estimates for system maintenance and rehabilitation. All revenue and cost estimates will be in year of expenditure dollars as well as constant (2009) dollars through 2040.

The Transportation Improvement Program

The preparation of the financial plan for the FY 2011-2016 TIP will be similar to that for the FY 2010-15 plan. Since SAFETEA-LU funding is apportioned to states, financial summaries for all TIP projects from agencies in the District of Columbia, Maryland and Virginia as well as WMATA and other transit agencies will be prepared. All projects submitted by these agencies will be grouped by the proposed SAFETEA-LU program funding categories under Surface Transportation (Title I) and Transit (Title III).

The funds programmed in the TIP for each state by SAFETEA-LU program category will be compared with the information provided by the states and transit operators on the estimated available Federal and State funds for the program period. The funds programmed in the TIP for each state by SAFETEA-LU program category in the first and second years will be compared with the trends of the annual funding programmed in previous TIPs and with the funding reported in the annual listings of TIP projects that have federal funding obligated. Comparisons that indicate significant changes from past trends will be reviewed with the implementing agency to clarify the change. Implementing agencies will ensure that only projects for which construction and operating funds can reasonably be expected to be available will be included in the TIP. In the case of new funding sources, strategies for ensuring their availability will be identified by the implementing agency and included in the TIP. The product will be a financial summary that focuses on the first two years of the six-year period of the TIP, and it will be incorporated as a main section of the TIP for review by the public and approval by the Technical Committee and the TPB.

Oversight:	Technical Committee
Cost Estimate:	\$84,000 \$50,000 carryover from FY 2009 \$134,000 total

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Products: Financial plans for 2010 CLRP and
FY 2011-2016 TIP

Schedule: May, 2010

Cost Estimate: \$350,000
\$50,000 carryover from FY 2009
\$400,000 total

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Products: Agendas, minutes, summaries, outreach materials as
needed; white paper(s) on technical issues as needed;
revised regional ITS architecture **and strategic plan**;
review and advice to MOITS planning activities around
the region

Schedule: Monthly

H. TRANSPORTATION/LAND USE CONNECTION (TLC) PROGRAM

This work activity strengthens the coordination between land use and transportation planning. Begun as a pilot in November 2006, the program established a clearinghouse to document national best practices as well as local and state experiences with land use and transportation coordination, and offers short-term technical assistance through consultant teams to local jurisdictions to advance their coordination activities. These activities make a positive impact on future transportation conditions in the Washington Region by helping communities locate housing and jobs closer together and promoting development closer to transit stations. This in turn helps the region address pressing issues like climate change through reducing vehicle miles traveled (VMT) and greenhouse gas emissions.

TPB staff will continue to provide the TPB and the Scenario Study Task Force with information about strategies used in other metropolitan areas to coordinate transportation and land-use planning and target transportation investment on the basis of regional goals. As the TLC Program grows and more planning projects are completed in more jurisdictions around the region, it may become appropriate to make identification of capital projects a more explicit priority of the TLC technical assistance projects, and seek the inclusion of these capital projects in the regional CLRP and TIP.

The following activities are proposed for FY 2010:

- Maintain and update the TLC Regional Clearinghouse and website
- Fund at least six technical assistance planning projects at a level of between \$20,000 and \$60,000 each, with consideration during project selection given to the local resources committed to the project. **Four technical assistance projects**

that are partially funded in FY 2009 will be completed in FY 2010. The projects and their FY 2009 carryover funding are the following:

- NoMa BID, Gateway Transportation Enhancement \$20,000 in carryover, total project budget is \$50,000

- Frederick County, MD-355/MD-85 TOD Study \$30,000 in carryover, total project budget is \$60,000

-Greenbelt, Pedestrian and Bicycle Master Plan \$10,000 in carryover, total project budget is \$30,000

-Prince George's County/Town of Cheverly, Non-motorize Transportation Study/ \$10,000 in carryover, total project budget is \$30,000

- Work with local project leads and consultants to identify recommended implementation action steps in each planning project report, such as further study needs, more stakeholder collaboration, suggested land use or local policy changes, and transportation investment priorities. These will be compiled at the end of the technical assistance round into a single report that will be provided to the TPB.
- Provide staff support for additional TLC Technical Assistance Projects to be conducted as part of the MDOT Multimodal Grant Program and for other projects where additional funding is provided by state or local agencies. The proposed funding level assumes the cost of TPB staff administration of some additional technical assistance projects funded through outside sources; if the TPB were to receive significantly more funding support for such projects, this administrative allocation may need to be revisited at a future date.

Oversight: TPB Technical Committee

Cost Estimate: \$395,000
\$70,000 carryover from FY 2009
\$465,000 total

Products: Updated web-based clearinghouse, technical assistance provided by consultant teams to six localities, and a summary report of technical assistance projects and implementation priorities.

Schedule: Technical assistance: September 2009-June 2010

4. DEVELOPMENT OF NETWORKS AND MODELS

C. MODELS DEVELOPMENT

The Models Development program serves to improve the TPB's travel forecasting practice on a continuing basis. The program encompasses short-term improvements to the TPB's existing travel model which can be implemented quickly, as well as longer term improvements that may require several years to become operational. Specific travel modeling improvements are identified on the basis of recommendations that result from periodic travel model reviews, from special needs identified by the TPB, or from methodological advances emerging from the research community.

During FY 2009, TPB staff released a draft travel demand forecasting process known as the Version 2.3 model. Version 2.3 was built off of the currently adopted Version 2.2 model, and features two key refinements: 1) the inclusion of a nested-logit mode choice modeling step and 2) updated medium and heavy truck models. It is anticipated that a comprehensive re-calibration and re-validation of Version 2.3 model will commence in FY 2010 using the 2007/8 Household Travel Survey. The calibration effort will involve a more detailed (3,700) transportation analysis zone (TAZ) system, whose development began in FY 2009. The Models Development program will also include activities aimed at keeping abreast of best practices and developing longer term travel forecasting improvements.

Prior to a re-calibration of the Version 2.3 model, the draft Version 2.3 model will undergo sensitivity testing. The results of sensitivity testing may suggest the need to further modify model. Staff plans to test enhancements to the model, such as the explicit consideration of transit fare subsidies which have grown considerably in recent years. Staff will also investigate available options to shorten the running time of the model which is especially important given that the more detailed TAZ system will drive up model execution times.

Re-calibration of the Version 2.3 model will require preparatory work activities given that newly collected data will be used and given that a new TAZ system will be adopted. Pending a review of the TAZ system, base year highway and transit networks will be established about the new zone system. 2007 traffic counts will be assembled and coded into the highway network. Logic checking and verification checks of the Household Travel Survey files will also be undertaken. Subsequently, network-based level of service skims and survey files will be merged into calibration files.

For the past few years, TPB has maintained a task order consulting contract to perform an ongoing scan of best modeling practices across the U.S. This arrangement will continue during FY 2010. Such an arrangement has proven effective at keeping the regional travel model in step with best practices across the country and has also served to inform the strategic direction of the models development program.

During FY 2010, TPB staff plans to initiate a multi-year consultant contract to begin the development of more advanced travel forecasting methodology for the Washington, D.C. region. Advanced methods emerging from research (i.e., tour-based or activity-based

travel models) have been promoted by the academic community but have not yet been broadly embraced by MPOs. TPB will likely favor an incremental development approach, paying attention to the experiences of the few agencies who have gained experience in the development and application of advanced travel models.

The TPB has historically refreshed the existing airport travel demand forecasts using the latest available air passenger survey. The surveyed travel pattern is used as a base upon which forecasted airport travel patterns are developed. During FY 2010, the 2007 Washington-Baltimore Air Passenger Survey will be used to update the TPB's forecasts of auto travel to the region's three major commercial airports. Staff will also keep abreast of emerging methods to model airport access demand model, incorporating choice of airport mode of access.

The TPB has played a leadership role in establishing a national forum comprised of MPO travel forecasters across the U.S, in cooperation with the Association of Metropolitan Planning Organizations (AMPO). The forum, known as the AMPO Travel Modeling Work Group, has served to promote understanding between MPO travel forecasters regarding methods currently being used in practice. TPB will continue its role in facilitating this group during FY 2010. One or two meetings are expected to convene during the fiscal year.

Finally, during FY 2010, staff will continue to review best practice in travel demand modeling through participation in the Transportation Research Board-sponsored conferences and literature reviews. Staff will provide documentation for all products from the models development program.

Oversight: Travel Forecasting Subcommittee

Cost Estimate: \$1,071,200
\$150,000 carryover from FY 2009
\$1,221,200 total

Products: Recommendations for continued updating of the travel demand modeling process, documentation of all activities

Schedule: June 2010

5. TRAVEL MONITORING

B. CONGESTION MONITORING AND ANALYSIS

Performance of the arterial highway system is monitored each year through the conduct of travel time/speed runs on a sample of arterial roadways, primarily drawn from the National Highway System. This system was enhanced in FY 2009 to encompass 430 miles of arterial highways. Each year approximately one third of the sample roadways are monitored; data are collected and are subsequently analyzed and reported by the end of the fiscal year. In FY 2009, the first year of the enhanced system of routes was started **but not completed**. In FY 2010 the **first and second** year of the enhanced system will be completed. Comparison of the findings with 2004 and 2007 will be conducted and changes to the system over time will be reported.

	Total Cost:	\$ 350,000 \$175,000 carryover from FY 2009 \$550,000 total
I		
	Oversight:	Travel Forecasting Subcommittee
	Products:	Arterial Travel Time Report
	Schedule:	June 2010

6. TECHNICAL ASSISTANCE

A. DISTRICT OF COLUMBIA

DDOT Traffic Counts

The purpose of this task is to perform continuous 48-hour traffic volume machine counts at approximately 200 locations citywide. The District will provide the exact locations for these counts. The counts performed under this project are in addition to those covered by the HPMS three year cycle count program, and are part of DDOT's annual traffic volume map. These counts will include quality control checking and tabulation and analysis of data collected in **FY 2009 and FY 2010**.

	Cost Estimate:	\$100,000 \$50,000 carryover from FY 2009 \$159,000 total
I		
	Product:	Machine traffic counts
	Schedule:	June 2010

2009 Automobile Travel Time Survey

The purpose of this project is conduct travel time studies along seventeen major arterials in the District of Columbia during the evening rush hour period to gauge system performance in each corridor. This data will be used to compare with data collected from a similar study in 2002 to determine if conditions have improved or deteriorated in the survey corridors.

Cost Estimate: \$60,000 carryover from FY 2009

Product: Technical Report

Schedule January 2010

\$35,700 of the program for FY 2010 remains to be specified.

TOTAL DISTRICT OF COLUMBIA COST ESTIMATE: \$312,000

\$110,000 carryover from FY 2009

\$422,000 total

B. MARYLAND

SHA - Western Mobility / Capital Beltway Studies

This project represents system level forecasting work which is performed in support of ongoing SHA project planning activities. In recent years, COG staff developed and analyzed travel forecasts for various alternatives in each of these corridors. These activities will be continued within this category on a specific request basis, as tasks are received.

Cost Estimate: \$31,000 carryover from FY 2009

MTA - Corridor Cities Transitway / Purple Line Transit

Recent activities on these project planning studies have primarily been conducted by consultants to the Maryland MTA. This project is designed to provide technical support to MTA and their consultants, including application of the primary travel demand models (assistance with development of model inputs, execution and evaluation of model outputs), incorporation of new transit analysis at the corridor level, and evaluation of results including through use of FTA's Summit model to compare results among the transit alternatives studied.

Cost Estimate: \$40,000 carryover from FY 2009

Traffic Impacts

This project is designed to assess on a comprehensive scale the transportation impacts of development, through the analysis of such development at the local, subarea, corridor and regional levels. Different methods and evaluation criteria may be employed at each level of analysis to appropriately consider such impacts, ranging from delay at intersections for localized studies, to travel modeling and aggregate systems level impacts for larger projects. Study elements will be detailed in conjunction with SHA staff.

Cost Estimate: \$~~110,000~~ \$100,000 carryover from FY 2009

Product: Technical reports

Project Evaluation

Maryland SHA requires quantified results on system performance benefits in order to compare the relative merits of individual projects proposed for implementation or for use in refining the Maryland Highway Needs Inventory. Such results will assist in determining priorities among the projects to maximize the benefits of the transportation planning and programming process. Specific level of service, travel delay, and mobility criteria will be defined and estimated at the appropriate local, subarea, corridor and / or regional levels to enable a consistent assessment of specified projects.

Cost Estimate: \$40,000 carryover from FY 2009

Product: Technical memo

Schedule: June 2010

Statewide Travel Demand Model

This project is designed to assist SHA and their consultants in their development of, and evaluation of results from, a statewide travel demand model. The model is being developed in order to analyze travel at a macroscopic level, i.e., statewide / multiple states, with a view to assessing impacts in Maryland of alternative growth scenarios and other forecast assumptions.

Cost Estimate: \$35,000 carryover from FY 2009

Product: Technical memos

Schedule: June 2010

Monitoring Studies

This work effort is designed: (1) to provide SHA staff with information relating to the effectiveness of ongoing and planned regional congestion monitoring activities in the Maryland portion of the region, and (2) to examine the effectiveness of such programs, including the use of before and after studies (primarily through literature reviews and analysis of existing data rather than through new collection of primary data). TPB staff will periodically brief SHA staff to keep them informed of regional congestion monitoring activities and to discuss possible new initiatives in this area.

Cost Estimate: \$50,000 carryover from FY 2009

TOTAL MARYLAND COST ESTIMATE: \$524,200
\$296,000 carryover from FY 2009
\$820,200 total

C. VIRGINIA

Travel Forecast Model Refinements

Using results from the regional travel demand model and comparing the results with ground counts at two or three specific corridor segments of high interest (to be specified by VDOT), recommend refinements to the model to make it even more valuable to VDOT transportation planners and traffic forecasters in responding to location-specific feasibility questions from top VDOT management or local jurisdictions evaluating potential comprehensive plan changes.

Cost Estimate: \$55,000 carryover from FY 2009

Product: study report with recommendations

Schedule: June 2010

Data Mine State of the Commute Survey

Conduct in-depth analysis of the "State of the Commute" survey for the Northern Virginia jurisdictions. Gather input from the local TDM programs to provide data/reports for their specific needs, provide additional cross tabs not provided by the MWCOC reports such as comprehensive demographic analysis, local jurisdictional and regional trend analysis, and recommendations on how to improve local northern Virginia programs as well as the regional Commuter Connections program and products.

Cost Estimate: \$ 50,000 carryover from FY2009

Product: Analysis results and reports

Schedule: June 2010

TOTAL VIRGINIA COST ESTIMATE: \$424,800
\$105,000 carryover from FY 2009
\$539,600 total

D. WMATA

Miscellaneous Services

This miscellaneous account is a mechanism established to address requests which are too small or too short-lived to warrant separate work scopes. Past work has included requests for hard copy, plots, tape, or diskettes of data from any of the planning work activities at COG.

Cost Estimate: \$7,600
\$16,499 carryover from FY 2009
\$24,099 total

Schedule: on-going activity

TOTAL WMATA COST ESTIMATE: \$185,600
\$16,499 carryover from FY 2009
\$202,099 total