

**FISCAL YEAR 2010**  
**JULY 1, 2009 – JUNE 30, 2010**

**UNIFIED WORK PROGRAM**

**FOR THE**

**RICHMOND AREA METROPOLITAN**

**PLANNING ORGANIZATION**

Approved as a Final Report by the Richmond Area Metropolitan Planning Organization, April 9, 2009.

Prepared by the Richmond Regional Planning District Commission staff through a cooperative process involving the City of Richmond, Counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan, and the Town of Ashland, the Virginia Department of Transportation, the Virginia Department of Rail and Public Transportation, the Virginia Department of Aviation, the Richmond Metropolitan Authority, the Capital Region Airport Commission, the Greater Richmond Transit Company, the Federal Highway Administration, the Federal Transit Administration, and RideFinders, Inc., on behalf of the Richmond Area Metropolitan Planning Organization.

**MPO AMENDMENT ACTIONS**

- 8/27/09: UWP amended (action by TAC on behalf of MPO) to program final FTA Section 5303 funds allocation (additional \$13,496 programmed for UWP tasks 1.1, 2.1, 2.3, 5.2 and 5.5).
- 11/19/09: UWP amended (action by TAC on behalf of MPO) to program the addition of \$10,105 in FY 2008 FTA Section 5303 funds (UWP tasks 1.1 and 1.2) and to program the addition of \$178,284 in FY 2009 FTA Section 5303 funds (UWP tasks 1.2, 2.1, 2.3, 2.8, 3.1, 3.3, 5.2, 5.5, 6.1 and 8.1).
- 1/21/10: UWP amended (action by TAC on behalf of MPO) to program final FHWA/PL funds allocation (additional \$178,471 programmed for UWP tasks 1.1, 2.1, 2.3, 6.1 and 8.1).
- 4/8/10: MPO action to shift PL funds among various RRPDC staff work tasks (task 1.2, 1.3, 2.1, 2.2, 2.3, 2.5, 2.8, 3.1, 3.2, 3.3, 4.1, 5.2, 5.5, 5.6, 6.1, 7.1, and 8.1).

## **RICHMOND AREA MPO MISSION STATEMENT AND PLANNING PRIORITIES**

### **Mission Statement**

The following mission statement was unanimously approved by the MPO on November 18, 2004:

To serve as the federal and state designated regional transportation planning organization that serves as the forum for cooperative transportation decision-making to assure excellence in mobility and safety within and through the Richmond region.

### **Planning Priorities**

Section 450.308(c) of the Metropolitan Planning regulations states that Transportation Management Area (TMA) designated MPO's shall include a discussion of the planning priorities facing the metropolitan planning area. The following identifies the FY 09 UWP major planning priorities. Further discussion of these priorities is provided in the various work tasks.

1. Task 1.2, MPO Citizen Participation – The MPO has a strong and active public participation program with two standing citizen advisory committees (Citizens Transportation Advisory Committee/CTAC and Elderly and Disabled Advisory Committee/EDAC) providing for the participation of and representation from individuals and organizations from diverse backgrounds and interests and representing a wide range of citizen views and concerns over regional transportation planning. Work continues to make public participation widely available through more effective placement of MPO plans, studies and reports on the RPRDC web site and through increased emphasis on outreach to area groups, organizations, and transportation disadvantaged populations.
2. Task 2.1, Socioeconomic Data Development – Work will be initiated in late FY 2009 to develop new base year (2008 or 2009) and forecast year (2035) demographic data/forecasts for use in the next LRTP update and for various MPO plans, studies, and reports. In addition to demographic data/forecasts required for the current LRTP travel demand model, development of additional demographic data may be required based on the results of UWP task 2.3, Regional Travel Demand Model (i.e., identification of additional demographic factors required to conduct planning applications for transit services planning).
3. Task 2.3, Regional Travel Demand Model – VDOT is currently participating in an enhanced National Household Transportation Survey (NHTS) to develop household surveys to be used to calibrate the region's new travel demand model. In addition, VDOT is reassessing its role in supporting regional plans and studies requiring use of the regional travel demand model. VDOT has indicated that at a minimum, there will continue to be a need for a model that can be used in conducting the regional air quality conformity analysis; however, VDOT may not

have the future staff resources available to support more than this minimal effort. VDOT has urged the MPO to develop additional in-house technical analysis capabilities to support regional travel demand modeling. RRPDC staff will work with VDOT staff to develop and present a report to TAC and the MPO on a program of action to provide staff resources, in coordination with VDOT efforts, to meet the MPO's regional transportation planning needs. This report will include an assessment of funding sources to support modeling capabilities at the RRPDC.

4. Task 3.1, Congestion Management System (CMS) – For the first time, VDOT will report accident data for all roadways in Virginia, beginning with 2008 data. Previously, this data was reported for only VDOT system roads (i.e., Interstate, Primary and State Secondary systems), while accident data for urban system, Henrico County secondary system and RMA toll roads was gathered from other sources. RRPDC staff will establish a process for gathering and reporting this data for all CMS network roads.
5. Task 4.1, Transportation Improvement Program (TIP) – RRPDC staff continues to provide significant staff resources to ensure an effective project programming process. In FY 2009, a comprehensive review of the financial status of completed RSTP and CMAQ funded projects was completed (work efforts initiated in FY 2007) with significant surplus funds (approximately \$5 million to \$6 million) identified and reallocated to active projects. Work on the review and reallocation should be completed in FY 2009 and VDOT is in the process of establishing ongoing institutional measures for financial close-out of RSTP and CMAQ projects.
6. Task 6.2, Intermodal Strategies and Actions for Inter-Regional Freight Movement – Work on this consultant study should be completed in mid-FY 2010 and reported to the MPO. Follow-up work activities will need to be developed following completion of this study and incorporated into the work program.

**DOCUMENTATION OF  
RICHMOND AREA MPO AND TRI-CITIES AREA MPO  
TRANSPORTATION PLANNING COORDINATION**

Article I of the “Memorandum of Understanding for Coordination of Regional Transportation and Air Quality Planning and Programming in the Richmond Area MPO and the Tri-Cities Area MPO Study Areas and the Richmond Nonattainment/Maintenance Area for Ozone Air Quality Standards Superseding the Memorandum of Understanding for January 9, 1992” states that the Richmond Area and Tri-Cities Area MPOs “monitor the coordination of Geographic Information System applications use for transportation planning and programming, cooperate in the sharing of information relating to the development of the long-range transportation plans and transportation improvement programs, coordinate estimation and forecasts of socio-economic data at the traffic analysis zone level, coordinate travel demand model development for the two transportation study areas, and participate on projects of mutual interest.” The MOU provides that documentation of cooperation between the Richmond Area and Tri-Cities Area MPOs shall be included in their respective annual planning work programs.

The following documents cooperative work efforts provided for in the MPO’s FY 10 UWP.

- 1.1 MPO Maintenance/Special Studies – Staff for the Richmond Area and Tri-Cities Area MPOs share information of interest including MPO and TAC meeting agendas, work program and TIP documents, correspondence for various work program and study activities, etc. Staffs for these two MPOs also participate on various VDOT and VDRPT technical/study advisory committees.
- 1.3 Unified Work Program (UWP) – The Richmond Area and Tri-Cities Area MPOs have an agreed procedure for the distribution of FHWA/PL funds that VDOT allocates to the Richmond Urbanized Area (which includes both MPOs).
- 2.1 Socioeconomic Data – Base year and forecast year data for the Richmond Area and Tri-Cities Area MPOs is jointly developed with common agreed-to base and forecast years and demographic factors.
- 2.2 Long-Range Transportation Plan (LRTP) – The LRTP regional travel demand model developed and maintained by VDOT covers both the Richmond Area and Tri-Cities Area MPO’s study areas.
- 3.3 Intelligent Transportation Systems (ITS) – The Richmond/Tri-Cities Areas Intelligent Transportation Systems (ITS) Architecture Report and Deployment Plan is maintained and updated through each MPO’s respective Technical Advisory Committee. VDOT Richmond District ITS staff serves as lead for advising each MPO as to ITS projects and programs recommended for each MPO’s review and incorporation into their respective LRTPs and TIPs.

- 5.8 Richmond Area Rail Studies – Work on rail studies which cover both MPOs is generally conducted by consultants under contract to VDRPT with technical advisory committees established to provide project review and comment. Staffs from the Richmond Area and Tri-Cities Area MPOs, along with appropriate local government and other agency staffs, serve on the studies’ technical advisory committees.
  
- 6.1 Intermodal Planning (VDOT Statewide Freight Transportation Planning) – VDOT is conducting a statewide study of essential freight infrastructure across the state and incorporating that information into statewide plans. RRPDC and Crater PDC staffs, along with staffs from other MPOs across the state, assist VDOT in an advisory capacity.
  
- 6.2 Intermodal Strategies and Actions for Inter-Regional Freight Movement – This study covers both the Richmond Area and Tri-Cities Area MPOs. Work is being conducted by a VDOT on-call consultant with RRPDC staff time provided as in-kind local match. A study advisory committee that includes both RRPDC and Crater PDC staffs oversees and directs this study.
  
- 7.1 Air Quality Plan and Program Activities – As part of VDOT’s work to conduct LRTP modeling activities for both the Richmond Area and Tri-Cities Area MPOs, VDOT conducts the air quality conformity analysis process for both MPOs. As part of VDEQ’s work to develop the State Implementation Plan (SIP) for the Richmond Nonattainment Area, VDEQ serves as lead staff for MRAQC, the CAAA Section 174 lead planning organization. Local elected officials representing each nonattainment area jurisdiction plus representatives from both MPOs, VDOT, and VDEQ also serve on the LPO.

## FREQUENTLY USED MPO TERMS AND ABBREVIATIONS

<b>Attainment</b>	A term that means an area is in compliance with the National Ambient Air Quality Standards (NAAQS) and/or the Clean Air Act (CAA). There are six atmospheric pollutants covered under the CAA. The Richmond area (i.e., Cities of Richmond, Colonial Heights, Hopewell, and Petersburg, and the counties of Charles City, Chesterfield, Hanover, Henrico and Prince George) is designated as a nonattainment area for ozone air quality standards.
<b>Highway Trust Fund (HTF)</b>	Provides dedicated funding for federal highway and mass transit programs. Revenues placed in the HTF come from the federal gasoline tax plus other user fees. The HTF consists of separate highway and mass transit accounts.
<b>MPO</b>	Metropolitan Planning Organization. The Richmond Area MPO's membership includes the following local governments and agencies: Ashland, Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan, Richmond, CRAC, GRTC, RMA, RRPDC, VDOT, RideFinders, FHWA, FTA, and VDA; serves as the forum for cooperative transportation decision making in the Richmond area.
<b>NAAQS</b>	National Ambient Air Quality Standards; defined by EPA.
<b>Obligations</b>	Commitments made by USDOT agencies to pay out money for federal-aid transportation projects. The TIP serves as the MPO's program of transportation projects for which federal funds have been obligated.
<b>Regionally Significant</b>	Term used for air quality conformity analysis to define highway and rail facilities covered by this analysis. Regionally significant projects are those projects on a facility that serves regional transportation needs and would normally be included in the modeling of a metropolitan area's transportation network. This includes, as a minimum, all principal arterial highways and all fixed guide-way transit facilities that offer a significant alternative to regional highway travel.
<b>SIP</b>	State Implementation Plan; identifies control measures and process for achieving and maintaining NAAQS; eligible for CMAQ funding.
<b>Study Area</b>	The area projected to become urbanized within the next 20 years; defines the area for MPO plans, programs, and studies.
<b>"3-C" Process</b>	("Continuing, Cooperative and Comprehensive") Language from federal legislation establishing MPOs and used in reference to the regional transportation planning and programming process.

- TCM** Transportation Control Measures (for Air Quality Control); eligible for CMAQ funding.
- TDM** Transportation Demand Management; various transportation control strategies and measures used in managing highway demand.
- TIP** Transportation Improvement Program; a staged, multiyear, intermodal program of transportation projects that is consistent with the transportation plan.

**Transportation Plan**

The MPO's adopted Long-Range Transportation Plan; serves as the initial step and framework in developing a regionally based network of transportation facilities and services that meets travel needs in the most efficient and effective manner possible.

**TAZ (Transportation or Traffic Analysis Zone)**

Generally defined as areas of homogeneous activity served by one or two major highways. TAZs serve as the base unit for socioeconomic data characteristics used in various plans and studies.

**Urbanized Area** Term used by the U.S. Census Bureau to designate urban areas. These areas generally contain population densities of at least 1,000 persons per square mile in a continuously built-up area of at least 50,000 persons. Factors such as commercial and industrial development, and other types and forms of urban activity centers are also considered.

**UWP** Unified Work Program; MPO's program of work activities noting planning priorities, assigned staffs, work products, budgets, and funding sources.

**VOC** Volatile Organic Compounds; emissions from cars, power plants, etc; when VOCs react with oxides of nitrogen (NOx) in the presence of heat and sunlight to produce ground level ozone or smog.

**MPO STANDING COMMITTEES**

- CTAC** Citizens Transportation Advisory Committee
- EDAC** Elderly and Disabled Advisory Committee
- TAC** Technical Advisory Committee

**FEDERAL STATE AND REGIONAL AGENCIES**

- CRAC** Capital Region Airport Commission

<b>EPA</b>	Environmental Protection Agency
<b>FAA</b>	Federal Aviation Administration
<b>FHWA</b>	Federal Highway Administration
<b>FRA</b>	Federal Railroad Administration
<b>FTA</b>	Federal Transit Administration
<b>GRTC</b>	GRTC Transit System (formerly Greater Richmond Transit Company)
<b>MRAQC</b>	Metropolitan Richmond Air Quality Committee
<b>RideFinders</b>	A public nonprofit corporation that provides carpool/vanpool matching and other commuter and transportation services.
<b>MARAD</b>	Maritime Administration
<b>RMA</b>	Richmond Metropolitan Authority
<b>RRPDC</b>	Richmond Regional Planning District Commission
<b>USDOT</b>	United States Department of Transportation
<b>VDA</b>	Virginia Department of Aviation
<b>VDEQ</b>	Virginia Department of Environmental Quality
<b>VDOT</b>	Virginia Department of Transportation
<b>VDRPT</b>	Virginia Department of Rail and Public Transportation
<b>VTRC</b>	Virginia Transportation Research Council

### **FEDERAL LEGISLATION**

<b>ADA of 1990</b>	Americans with Disabilities Act
<b>CAAA of 1990</b>	Clean Air Act Amendments
<b>ISTEA</b>	Intermodal Surface Transportation Efficiency Act; passed in 1991; reauthorized federal surface transportation programs for highways, highway safety and transit for a six-year period, 1992 to 1997. ISTEA provided for significant expansion of MPO planning and programming authority and responsibilities.

- TEA-21** Transportation Equity Act for the 21<sup>st</sup> Century; signed into law on June 9, 1998 (replaced ISTEA). Authorizes federal funds for highways, highway safety, transit, and other surface transportation programs for the next 6 years. Builds on and continues many of the initiatives established in the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991.
- SAFETEA-LU** Safe, Accountable, Flexible, Efficient Transportation Act: A Legacy for Users; federal transportation reauthorization signed into law on August 10, 2005 (replaced TEA-21).

## **FUNDING PROGRAMS**

- SPR** State Planning and Research; federal funds allocated to VDOT in support of MPO program activities.
- Local Match** Funds required by recipients of PL and Section 5303 funds for matching federal and state grant funds. Section 5303 and PL funds require a 10% match, with VDOT/VDRPT providing 10% and the remaining 80% provided by the federal source.
- RRPDC** Funds from the RRPDC (state appropriations and local dues) provided in addition to required local match funds (sometimes noted as RRPDC overmatch).
- PL** Planning funds available from FHWA for MPO program activities.
- CMAQ** Congestion Mitigation/Air Quality; federal funding program created under ISTEA (1991). Directs funding to projects that contribute to meeting National Ambient Air Quality Standards. CMAQ funds generally may not be used for projects that result in the construction of new highway capacity for single occupant vehicles. CMAQ funds may be available for eligible planning activities that lead to and result in project implementation.
- Section 5303** Planning funds available from the FTA for MPO program activities.
- Multimodal Planning**  
Multimodal Planning Grant; VDOT discretionary grant program (state funds matched by local funds) providing assistance and support for innovative multimodal transportation planning initiatives.
- TEIF** Transportation Efficiency Improvement Fund; purpose of program is to reduce traffic congestion by supporting transportation demand management programs designed to reduce use of single occupant vehicles and increase use of high occupancy vehicle modes; operated by the Commonwealth Transportation Board.

## OTHER TERMS AND ABBREVIATIONS

<b>ACG</b>	Address Coding Guide
<b>ADT</b>	Average Daily Traffic; used in conjunction with current and projected traffic volumes.
<b>CAO</b>	Chief Administrative Officer
<b>CARE</b>	Community Assisted Ride Enterprise; program operated by GRTC providing demand-response paratransit service for the elderly and disabled in the City of Richmond and Henrico County.
<b>CMS</b>	Congestion Management System
<b>COA</b>	Comprehensive Operational Analysis (for transit studies)
<b>CTB</b>	Commonwealth Transportation Board
<b>EJ</b>	Environmental Justice
<b>FFY</b>	Federal Fiscal Year (October 1 to September 30)
<b>FY</b>	Fiscal Year (July 1 to June 30).
<b>GIS</b>	Geographic Information System
<b>I/M</b>	Inspection and Maintenance
<b>MSA</b>	Metropolitan Statistical Area. The Richmond/Petersburg MSA includes the cities of Colonial Heights, Hopewell, Petersburg, and Richmond; the counties of Charles City, Chesterfield, Dinwiddie, Goochland, Hanover, Henrico, New Kent, Powhatan, and Prince George; and the Town of Ashland.
<b>NHS</b>	National Highway System
<b>NHTS</b>	National Household Transportation Survey
<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>RFP</b>	Request for Proposals; process used for reviewing and selecting proposals for consultant study activities. (Goods and non-professional services)
<b>RFQ</b>	Request for Qualifications (Consultant Services).
<b>SIP</b>	State Implementation Plan (for attainment and maintenance of air quality standards)

<b>SOV</b>	Single Occupant Vehicles
<b>STP</b>	Surface Transportation Program
<b>SYIP</b>	Six Year Improvement Program; annual document approved by the CTB. Provides the state's list of federal and state funded transportation projects and programs administered by VDOT and VDRPT.
<b>TMA</b>	Transportation Management Area (i.e. MPO's greater than 200,000 in population).
<b>VMT</b>	Vehicle Miles Traveled

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**1.0 MAINTENANCE OF THE MPO**

**1.1 MPO Maintenance/Special Studies**

**A. Background**

This task provides the administrative and technical support needed to maintain the MPO and MPO process, and provides for special studies and reports as directed by the MPO. Major work activities include program administration (e.g. agendas, minutes, mailing, monthly reports, program management and administration, etc.); PL/Section 5303 grant administration; State Multimodal Planning Grant contract and work tasks administration (if grant funds are awarded); pass through contracts; participation on advisory committees; special studies and projects; review/comment on pass-through work tasks; federal/state regulations and requirements; federal/state legislation review; training, workshops and conferences; and computer program support.

The initial estimate for all staff work task direct costs is estimated at approximately \$129,300 (not including consultant services). Staff direct costs are reviewed by the Technical Advisory Committee (TAC) as part of the UWP development process and are reported to VDOT and VDRPT as part of its submission of quarterly work progress reports.

Under the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, the MPO's planning and programming responsibilities had been significantly increased and its scope has become broader and more comprehensive. Most of these requirements were continued as part of the Transportation Equity Act for the 21st Century (TEA-21); signed into law on June 9, 1998. On August 10, 2005, President Bush signed into law the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU guarantees funding for highways, highway safety, and public transportation totaling \$244.1 billion and represents the largest surface transportation investment in U.S. history. SAFETEA-LU builds on the two landmark bills that brought surface transportation into the 21st century by shaping the highway program to meet the Nation's changing transportation needs—the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Transportation Equity Act for the 21st Century (TEA-21). The planning provisions of SAFETEA-LU retain and revise metropolitan and statewide transportation planning statutory requirements. Most of the provisions mirror previous law, but key statutory changes are included. And, although most of the transportation planning requirements became effective immediately when SAFETEA-LU was signed into law on August 10, 2005, many of these provisions require rulemaking to implement the changes. Draft regulations implementing MPO planning and programming provisions under SAFETEA-LU were published in the Federal Register on June 9, 2006 and the final regulations were published on February 14, 2007.

## **FY 10 UWP Task 1.1**

The MPO is charged with developing transportation plans and programs, which provide for the development of transportation facilities which function as a “seamless” intermodal system. The process for developing these plans must consider all modes of transportation, and must, to the maximum extent feasible, be continuing, cooperative, and comprehensive (i.e., “3-C” process). As a TMA level MPO, the process must also consider the results of the Congestion Management System in the planning and programming of transportation projects.

VDOT’s Transportation and Mobility Planning Division (TMPD), located in the Central Office, will provide statewide oversight, guidance and support for the federally mandated Metropolitan Transportation Planning and Programming Process. TMPD will provide technical assistance to VDOT District Planning Managers, local jurisdictions, regional agencies and various divisions within VDOT, in the development of transportation planning documents for the MPO areas. TMPD will participate in special studies as requested. Statewide funding for FY 10 for TMPD is budgeted at \$500,000.

The MPO provides technical assistance to area agencies and organizations to provide information and services in addressing regional transportation needs. At the February 14, 2008 RRPDC board meeting, action was taken by the RRPDC to establish a working group to consider and propose solutions addressing the region’s future transportation needs and funding sources. The RRPDC’s action provides for the participation of Richmond area General Assembly members and the business community as members on this working group; directs RRPDC staff to coordinate working group meetings, provide background information, data, and reports to the working group, and to prepare a final report and recommendations as proposed by the working group; directs that the working group complete its assignment and be prepared to offer its conclusions and recommendations to Richmond area General Assembly members and business leaders. The work group report was submitted to the RRPDC board at its September 11, 2009 meeting and following discussion at both the October and November board meetings, and consideration at each local government board of supervisors/council meeting, the RRPDC board took action at its November 13 meeting to agree to continue discussion concerning regional transportation issues pertaining to planning, strategies and funding, with these discussions to be coordinated by the RRPDC Transportation Funding Strategies Work Group. This group should hold an initial meeting in late FY 2009 and develop a course of action to address the concerns and issues as raised by the RRPDC board.

### **B. End Products**

A well functioning MPO process which involves the MPO as the policy body for transportation planning in the Richmond Area and provides for a multi-modal, continuing, comprehensive, and cooperative transportation planning and programming process.

**C. Work Elements**

Work activities include the following:

1. Provide for general maintenance and administration of the MPO “3-C” process, MPO, and MPO committees and work groups, including direct costs to support the process.
2. Provide for the preparation and documentation of MPO meetings and other committee meetings as appropriate.
3. Perform review activities under various local, state, and federal programs including Commonwealth Intergovernmental Review Process, State Route projects and Environmental Impact Statements and Assessments.
4. Coordinate review and presentation activities with RRPDC and other regional, local and state agencies involved with transportation planning and programming.
5. Prepare various reports including VDOT and VDRPT Quarterly Progress Reports, and MPO financial and work progress reports.
6. Provide for contract administration of PL, Section 5303, state program funds, and third party agreements.
7. Participate in work tasks including preparation and/or review and comment on Request for Proposals, consultant review selection, and documentation.
8. Maintain up-to-date information and literature on transportation planning and programming in the Richmond area.
9. Review and comment as appropriate on legislative and regulatory activities affecting transportation planning and programming, and perform activities necessary to ensure MPO compliance with applicable state and federal rules and regulations.
10. Attend seminars, meetings, workshops, and conferences related to MPO activities. Attend and participate on various VDOT, VTRC, and other advisory committees, task forces, regional and transportation planning associations (e.g., VAPDC, VASITE, ITSVA), etc.
11. Provide for use of legal counsel and audit services, under the direction of the RRPDC Executive Director, for administering federal and state contracts, meeting reporting requirements, and other activities and services necessary and appropriate for staffing the MPO.

## **FY 10 UWP Task 1.1**

12. Provide staff assistance for and participation in special studies, projects and programs in response to requests by area local government, the RRPDC, MPO member organizations, and others as determined by the RRPDC Executive Director.
13. Collect and update files and reports as necessary, with traffic count information from VDOT, RMA, and local government sources.
14. Staff support for purchase, maintenance, upgrading, and repair of computers. Also, share in attributable costs for support of computer network and support activities.
15. Develop various maps in GIS format for MPO special studies/major projects and presentations.
16. Respond to information requests from area local governments, VDOT, VDRPT, GRTC, and other government agencies.
17. Maintain current highway facilities inventory and monitor regional travel patterns [VDOT].
18. Provide traffic data forecasts for design of highway facilities [VDOT].
19. Provide technical assistance to RRPDC, local jurisdictions, and other agencies concerning transportation [VDOT].
20. Review site plans as requested [VDOT].
21. Perform and/or assist in special projects, studies, evaluations, and other activities upon direction of MPO and MPO Committees.
22. Review final federal regulations and guidance related to MPO planning and programming requirements and update/revise the MPO's work program, procedures and activities as appropriate addressing SAFETEA-LU and other federal requirements.

### **D. Agency Participation**

RRPDC, VDOT, VDRPT, local governments, GRTC, CRAC, RMA, FHWA, FTA, FRA, EPA, VDEQ, VDA, RideFinders, Port of Richmond.

**FY 10 UWP Task 1.1**

**E. Budget, Staff and Funding**

	<u>PL<sup>④</sup></u>	<u>5303<sup>②</sup></u>	<u>SPR<sup>①</sup></u>	<u>FY 08 CO 5303<sup>③</sup></u>	<u>FY 09 CO 5303</u>	<u>TOTAL</u>
RRPDC	409,670	15,199	----	4,100	22,298	451,267
VDOT	----	----	<u>201,000</u>	----	----	<u>201,000</u>
<b>TOTAL</b>	<u>409,670</u>	<u>15,199</u>	<u>201,000</u>	<u>4,100</u>	<u>22,298</u>	<u>\$652,267</u>

- ① Provides for VDOT Richmond District support on all MPO work tasks.
- ② 8/27/09 MPO action to add \$2,496 in FY 10 FTA Section 5303 funds.
- ③ 11/19/09 MPO action to add \$4,100 in FY 08 Section 5303 funds.
- ④ 1/21/10 MPO action to add \$471 in FHWA/PL funds.

**F. Schedule**

Ongoing activity.

## 1.2 MPO Citizen Participation

### A. Background

This task provides staff support to ensure an active and involved citizen participation program, which meets federal and state requirements for public involvement in the transportation planning process. It should be noted that SAFETEA-LU requires a high level of citizen involvement in the MPO process, including public meetings to review the TIP and transportation plan documents.

The MPO's current citizen participation process includes the use of two active and involved committees (i.e. CTAC and EDAC); annual public meetings for the TIP and LRTP; posting of MPO/MPO committee meetings and agendas and plan/document summaries on the RRPDC/MPO web site; submitting draft TIP's and other documents as directed by the MPO for public review and making these documents accessible to the public at various locations (e.g., local libraries); providing opportunity for open public comment at all regularly scheduled MPO, TAC, CTAC and EDAC meetings; and other activities documented in the *MPO Public Participation Plan*.

It should be noted that SAFETEA-LU has expanded public participation requirements for the TIP and LRTP (i.e., additional consultations, development of public participation plan, employing visualization techniques, etc.). In response to these new requirements, the MPO took action at its April 12, 2007 MPO meeting to adopt the *MPO Public Participation Plan*. This plan builds on the MPO's previously adopted "Guidelines for Public Participation." The plan includes activities for consultation with interested parties and federal, state, and local agencies as part of the LRTP and TIP development process. It also provides for outreach activities that include activities to inform and seek comments from minority and low-income groups and limited English-speaking population groups. It also provides for information, (meeting agendas and notices, reports, studies, etc.) to be made available in an electronically accessible format. Staff currently posts MPO plans, programs, reports, and other materials on the RRPDC web site and submits agendas, correspondence and other information by e-mail.

### B. End Products

A functional and viable citizen participation program, which provides for a well informed public and for public input to the "3-C" transportation planning and programming process.

### C. Work Elements

Work activities include the following:

1. Citizens Transportation Advisory Committee (CTAC) – Provide administrative and technical support of the MPO CTAC.

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2. Web Site – Post meeting agendas and minutes, notices, reports, newsletters, plan documents, and other information on the Richmond Regional PDC web site.
3. Information Requests – Respond to requests for information on plans, studies, reports, and data.
4. Newsletter – Prepare articles and information for RRPDC newsletter.
5. Public Reviews – Conduct annual MPO review meetings providing initial citizen input for MPO plans and programs. Also, conduct other public review meetings as necessary for the LRTP/CMS and TIP. Review meetings include outreach activities for low-income and minority communities and limited English-speaking groups. Prepare notice for public reviews advertised in newspapers, posted on web site, and submitted to interested parties and others. Draft documents or summaries distributed to area libraries and posted on web site.
6. Visualization Techniques – Provide for use of appropriate visualization techniques when presenting and describing MPO plans and programs.
7. Consultation with Interested Parties/Agencies – Conduct consultation activities with various interested parties and government agencies as part of the TIP and LRTP development process.
8. Evaluations – Conduct evaluation activities to determine the effectiveness of public review/input activities.
9. MPO Orientation Meeting – Conduct periodic orientation meeting for new MPO and MPO committee members.
10. MPO Background Information – Develop, publish, and distribute/post on web site, background information materials on the MPO.
11. MPO Information Fact Sheets – Prepare fact sheets on MPO plans, studies, programs, reports and format for posting on the RRPDC web site and for use at MPO public review, outreach and information meetings.
12. Notices – Provide/distribute notice for all MPO and MPO committee meetings to area news media and interested parties. When appropriate, prepare and distribute press releases.

### **D. Agency Participation**

RRPDC, VDOT, VDRPT, local governments, GRTC, CRAC, FHWA, FTA, VDEQ, RMA, RideFinders, CTAC at-large organizations.

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**E. Budget, Staff and Funding**

	<u>PL<sup>②</sup></u>	<u>5303</u>	<u>FY 08 CO 5303<sup>①</sup></u>	<u>FY 09 CO 5303<sup>①</sup></u>	<u>TOTAL</u>
RRPDC	50,000	30,000	6,005	15,000	\$101,005

① 11/19/09 MPO action to add \$6,005 in FY 08 Section 5303 funds and to add \$10,000 in FY 09 Section 5303 funds.

② 4/8/10 MPO action to subtract \$11,000 in PL funds (shifted to other RRPDC staff work tasks).

**F. Schedule**

Ongoing activity.

**1.3 Unified Work Program (UWP)**

**A. Background**

This task provides for the maintenance of the adopted UWP and for the annual preparation of the MPO's work program for the upcoming fiscal year (i.e., FY 2011, from July 1, 2010 to June 30, 2011). The UWP also identifies the region's planning priorities, documents cooperation between the Richmond Area and Tri-Cities Area MPOs on various work activities and notes various transportation study activities as informational items.

**B. End Products**

1. Maintain/amend the FY 10 UWP.
2. FY 11 UWP document.
3. Prepare/update staff work assignments, budgets, cost estimates and schedules.

**C. Work Elements**

Work activities include the following:

1. Review VDOT, VDRPT, FHWA, FTA, EPA, and other state and federal agency information and requirements, plus other materials relating to UWP preparation.
2. Solicit input for proposed work tasks through the MPO's annual public information and outreach meetings and based on comments and suggestions offered as part of regular CTAC and EDAC meetings.
3. Prepare a preliminary staff budget and list of proposed work tasks for the Commission's annual work programs.
4. Provide for consideration of local government, GRTC, VDOT, and VDRPT input on proposed transportation planning studies of interest to the MPO (funded with federal transportation funds other than FHWA/PL and FTA Section 5303). Includes studies programmed in the Transportation Improvement Program (TIP).
5. Identify and document planning priorities.
6. Prepare work tasks and budgets.
7. Identify funding sources and amounts.
8. Prepare final work program document.

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9. Secure needed approvals from MPO, VDOT, VDRPT, FHWA, FTA, and other agencies/organizations as appropriate.
10. Secure commitments for local match funds as appropriate.
11. Conduct State and Regional Intergovernmental Review process and submit grant applications (for both state and federal grant programs).
12. Distribute final UWP document and post on RRPDC web site.
13. Amend adopted UWP as per MPO action.
14. Prepare and update staff work assignments, direct costs, and schedule.

**D. Agency Participation**

RRPDC, VDOT, VDRPT, local governments, CRAC, GRTC, RMA, RideFinders, FHWA, FTA.

**E. Budget, Staff and Funding**

	<u>PL<sup>①</sup></u>
RRPDC	\$60,000

① 4/8/10 MPO action to add \$6,000 in PL funds (shifted from other RRPDC staff work tasks)

**F. Schedule**

On-going activity for adopted UWP/RRPDC Work Programs

October 2009 to May 2010 for FY 11 RRPDC Work Program.

January 2010 to April 2010 for FY 11 UWP.

## 2.0 LONG RANGE PLANNING AND SURVEILLANCE

### 2.1 Socioeconomic Data Development

#### A. Background

As part of the MPO's regional transportation planning process, socioeconomic data is developed by area local governments and RRPDC staff for use in various VDOT, MPO, and local plan and study activities. For instance, socioeconomic data provides input for planning models, EIS, corridor studies, air quality conformity analysis, transit studies, etc., and is used to respond to information requests for market and other demographic studies. The most recent published report, entitled *Socioeconomic Data Report, 2000 and 2031* was reviewed and approved at the MPO's November 7, 2007 meeting. The report was instrumental to ensure that the Richmond Area 2031 Long-Range Transportation Plan (adopted by the MPO in August 2008) anticipates and responds to the forecasted growth in the region while maintaining compliance with air quality standards.

The RRPDC works with area local governments to coordinate the development of socioeconomic data and forecasts. Data prepared by area local governments is as follows:

- Total population
- Group quarters population
- Single and multi-family population
- Total housing units
- Single and multi-family housing units
- Total students
- Students grades K-12 (by location of school)
- College students (by location of school)

Data prepared by RRPDC staff is as follows:

- Total households
- Total employment
- Retail employment
- Automobiles

The RRPDC staff is responsible for developing a final socioeconomic data report which is submitted for TAC review and recommendation, and for MPO review and action.

The methodology for base year and forecast year socioeconomic data is developed in consultation with a work group of area local planners and demographers, VDOT, and Crater PDC staff (i.e., Socioeconomic Data work group). In FY10, the base year data for the region's air quality model must be updated to comply with federal requirements; the model must be validated against conditions that were current no

more than ten years prior to the analysis, and since the current model is based on year 2000 data, the current model will be unacceptable for air quality conformity analysis after the end of 2010. VDOT plans to update the model ahead of that deadline, using recent survey data from the National Household Transportation Survey (NHTS), as well as recent traffic and transit ridership counts. It is critical that contemporary socioeconomic data also be provided as part of the model update.

Work activities to maintain and update census tract or block level data showing minority, ethnic group, limited English proficiency, and low income population groups is used especially for Title VI and environmental justice assessments. In addition, assessing information available from the American Community Survey (ACS) and the Census Transportation Planning Package (CTPP) is also conducted under this UWP work task. (Note that the ACS will henceforth substitute for the U.S. Census “long form,” where much of the “journey-to-work” data was previously collected.)

Starting in March 2008 and continuing to April 2009, the Federal Highway Administration (FHWA) has been conducting the National Household Travel Survey (NHTS). Public access to the data is scheduled to start in late fall 2009. Approximately 150,000 U.S. households are being surveyed. The NHTS is the primary source of nationwide data on a wide range of travel characteristics. The NHTS provides statistical measures of intermodal system use (e.g., highway, bus, car/vanpools, walk, bike, and long-distance trips) and travel behavior. The NHTS is a critical data source helping the U.S. Department of Transportation (USDOT) assess the overall use, capacity, and performance of the nation’s transportation system. FHWA has been conducting these studies for approximately 40 years. Key trends identified through the NHTS data series include:

- Congestion – Time behind the wheel increased by just over a minute per year during the last decade, and drivers in the largest metropolitan areas had the greatest increases in travel time. However, a significant and growing share of peak period travel is not related to work (including trips for taking children to school, going to the doctor, etc.). How growing congestion affects non-work travel, and how these trips effect congestion, will be part of the new data analysis.
- Safety – The NHTS shows that the percent of older people who continue to drive is growing, especially older women. The U.S. vehicle fleet is also aging – and older drivers are more likely to be driving older cars than younger age groups. The trend in older drivers is expected to continue, impacting policies related to both safety and mobility. In addition, the 2008 NHTS has an increased emphasis on pedestrian safety, including attitudes about walking and biking, with a special component on children’s travel to school.
- Fuel Cost – The average household has seen a doubling in annual gasoline expenditures since 2001 according to the latest version of the NHTS (with updated fuel costs from May 8, 2006). How increases in gas prices affect

daily travel choices, change the fleet mix, and impact the typical American family will be part of the 2008 NHTS analysis.

As part of the 2008/2009 NHTS, an enhanced survey sample is being conducted in Virginia with 15,000 surveys planned statewide. This add-on to the NHTS effort will be focused primarily on MPO study areas in Virginia, but will also provide for additional samples for rural areas. VDOT expects that data from this enhanced survey effort should be processed and geo-coded in the spring and summer of 2009 with data available for analysis by the fall of 2009. The household travel survey results are a critical part of the regional travel demand model, as well as other analyses of travel characteristics in the Richmond region. NHTS will provide detailed data for the following:

- Households – Includes number of persons, drivers, workers, vehicles, income, Hispanic status of reference person, tract and block group characteristics.
- Persons – Age, sex, driver status, travel disability, annual miles driven, use of public transit, walk and bike trips.
- Workers – Full or part-time, more than one job, occupation (four categories), workplace location, mode of travel to work, drive alone or carpool, work from home, commercial driver status.
- Each Vehicle – Make, model, age (year), how long owned.
- Daily Travel Data – Origin and destination, time of trip (start/end), distance, means of transportation (including use of transit), number of other trips.
- Longer Distance Travel – Number, dates, recurring or not, purpose, destination, means of transportation.

**B. End Products**

1. Establish base year, mid-term and forecast year socioeconomic data for use in updating the regional air quality conformity model and for the next LRTP (tentatively set as the 2035 LRTP).
2. Establish new or revised Transportation Analysis Zones (TAZs) for the region in conformance with guidelines being developed by FHWA (note that initial TAZs will need to be established well before their summer 2011 scheduled submission to the Census Bureau; as a result, some modifications to TAZ geography and data may be required in FY 2011).

3. Updates for minority, ethnic, limited English proficiency and low-income population groups for Title VI and environmental justice assessments as appropriate.
4. Use of the ACS and CTPP in support of various plans, studies, and reports.
5. Staff involvement in review activities for the year 2010 census.
6. Report on use of VEC population and employment forecasts and allowances for exceeding VEC control totals.

**C. Work Elements**

1. Base and Forecast Years – RRPDC staff to work with the Socioeconomic Data work group to establish new base year and forecast year socioeconomic data for updating the regional air quality model and for the next LRTP update (tentatively set for 2035). Consideration will also be given to the establishment of a mid-term forecast to coordinate with future analyses of the Six Year Improvement Program (SYIP) and for air quality modeling.
2. Data Review – RRPDC staff to work in coordination with VDOT, Crater, and GRTC staffs to review data needs for the regional model including data needs for conducting transit travel demand estimates. Staff will also review current data services (e.g., Virginia Employment Commission, private vendors such as Woods & Poole, etc.) to assess availability, accuracy, ability to apply at Transportation Analysis Zone (TAZ) or another more appropriate zonal level (e.g., census block or block group, tax parcels, etc.).
3. Forecast Control Totals – RRPDC staff to work with VDOT to review policy requirements for use of Virginia Employment Commission (VEC) in establishing control totals for jurisdiction level population and employment forecasts, and allowances for exceeding VEC control totals. RRPDC staff will prepare and submit a report to area local governments explaining VEC control total requirements and documentation and analysis requirements for exceeding VEC control totals.
4. Data Study Area – Work with VDOT to establish area subject to TAZ and data requirements (i.e., MPO study area TAZs and external area TAZs). Note that work in southern Chesterfield County (in the Tri-Cities Area MPO) will be coordinated with Crater PDC staff.
5. TAZ Geography Analysis – Work in conjunction with FHWA, VDOT and area local governments in the review of existing TAZ boundaries to coordinate with new travel survey information; this may include realigning TAZ boundaries, establishing smaller TAZs, or aggregating TAZs for certain travel demand model analysis requirements and other study activities.

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6. Maintain ACS and CTPP data and staff expertise and capabilities in applying these data to plan and study activities.
7. Staff support for work by RRPDC and local government staffs in reporting and distributing travel survey data in support of MPO plan and program activities.
8. Maintain and update as needed, geographical data on minority and low-income population groups (environmental justice data required for analysis of transportation investments in MPO study area).
9. Staff involvement in review activities for the year 2010 census.
10. Work activities to develop ethnic and limited English proficiency demographic profiles (details of this work element to be developed following the federal MPO certification review report).

VDOT and other local government work elements are as follows:

1. Participation by appropriate local staff on the Socioeconomic Data work group [local government work element].
2. Compile data for use in various special studies (e.g., Environmental Impact Statements and Assessments, etc.) [VDOT work element].

**D. Agency Participation**

RRPDC, VDOT, Local Governments, Crater PDC.

**E. Budget, Staff and Funding**

	<u>PL<sup>③④</sup></u>	<u>5303<sup>①</sup></u>	FY 09 CO <u>5303<sup>②</sup></u>	<u>TOTAL</u>
RRPDC	180,000	22,000	20,000	\$222,000

- ① 8/27/09 MPO action to add \$2,000 in FY 10 FTA Section 5303 funds.
- ② 11/19/09 MPO action to add \$10,000 in FY 09 FTA Section 5303 funds.
- ③ 1/21/10 MPO action to add \$60,000 in PL funds.
- ④ 4/8/10 MPO action to add \$30,000 in PL funds (shifted from other RRPDC staff work tasks).

**F. Schedule**

1. July to August 2009 – Establish data study area (proposed as PD 15).
2. July to September 2009 – Establish base, mid-term and forecast years.

## **FY 10 UWP Task 2.1**

3. July 2009 to October 2009 – Conduct TAZ geography analysis.
4. August 2009 to April 2010 – Develop base year socioeconomic data required to update the regional air quality model.
5. October 2009 to February 2010 – Review of travel demand forecasting model data needs (see UWP task 2.3 on travel demand model staffing and UWP task 2.2 on Regional Multimodal Transportation Plan development).
6. September 2009 to April 2010 – Report on Policies and Procedures Allowing Exceedence of VEC Control Totals.
7. April to early/mid-FY 11 – LRTP horizon/forecast year (2035) and mid-term year (2018) demographic forecasts. [Note forecast and mid-term years subject to review and confirmation following initiation of work for the Regional Travel Demand Model report; see UWP task 2.3.]
8. Ongoing – NHTS and ACS monitoring and reporting as appropriate.
9. Ongoing staff activities in support of other task work elements.

**2.2 Long-Range Transportation Plan (LRTP) Update**

**A. Background**

The LRTP serves as the blueprint for developing the region’s network of transportation facilities and services. The LRTP features a multimodal approach (i.e. automobiles, buses, car and vanpools, passenger rail, bicycles, water, truck and rail cargo, etc.) to address the region’s long term (20 year) travel needs. The LRTP considers the relationship between the transportation infrastructure and its impacts on the natural and human environment. Projects included in the LRTP are constrained by the projected levels of available financial resources and must also meet federal air quality, environmental justice, and planning requirements. Highway and public transportation projects and programs must be consistent with the MPO’s adopted LRTP to be eligible for federal-aid funds.

The Richmond Area Long-Range Transportation Plan in effect at this time was adopted by the MPO early in FY09 (i.e., August 2008). This LRTP has a horizon year of 2031, and was developed in accord with the 2005 federal transportation act entitled the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). The 2031 LRTP includes both long-range and short-range strategies/actions that support the development of an integrated multimodal transportation system, designed to facilitate the safe and efficient movement of people and goods in the Richmond area. The 2031 LRTP is based on the (then) latest available estimates and assumptions for population, land use, travel, employment, congestion, and economic activity.

MPO planning regulations specify minimum requirements for LRTP content which are summarized as follows (see section 450.322 (f) and (h) of the MPO planning regulations):

- a. Projected transportation demand of persons and goods.
- b. Existing and proposed transportation facilities that should function as an integrated metropolitan transportation system.
- c. Inclusion of locally preferred alternatives selected from an Alternatives Analysis under the FTA Capital Investment Grant program (note this includes consideration of financial capacity, air quality conformity, and environmental justice requirements).
- d. Operational and management strategies.
- e. Consideration of the results of the congestion management process.
- f. Assessment of capital investment and other strategies to preserve the existing and projected future metropolitan transportation infrastructure and provision for multimodal capacity increases based on regional priorities and needs.

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- g. Design concept and design scope descriptions of all existing and proposed transportation facilities in sufficient detail, regardless of funding source.
- h. Discussion of types of potential environmental mitigation activities and potential areas to carry out these activities (discussion developed in consultation with federal and state land management, wildlife and regulatory agencies).
- i. Pedestrian walkway and bicycle transportation facilities (in accordance with 23 U.S.C. 217 (g)).
- j. Transportation and transit enhancement activities.
- k. A financial plan that demonstrates how the adopted transportation plan can be implemented.
- l. Both a safety and a security element that summarize the priorities, goals, or projects for the MPO study area contained in: 1) the State's Strategic Highway Safety Plan, and 2) emergency relief and disaster preparedness plans, strategies, and policies that support homeland security and safeguard the personal security of all motorized and non-motorized users.

MPO planning regulations specify certain requirements for the LRTP development process, including the following (see Section 450.322 (g), (i), (j), and (l)):

- a. The MPO shall consult with state and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation.
- b. The MPO shall provide citizens and other interested parties with reasonable opportunity to comment on the LRTP (see MPO Public Participation Plan).
- c. FHWA and FTA must make an air quality conformity determination on the LRTP.

In addition, MPOs must assess the impact of proposed projects on the region's low-income and minority communities. Such an environmental justice assessment is conducted as part of the LRTP development process with the analysis and results included in the LRTP.

The development of a long-term multimodal transportation vision plan for the region was proposed by VDOT in FY 2008. Such a plan would assess scenarios for future growth and development and look at various solutions for meeting future mobility and accessibility needs. The MPO has allocated \$300,000 in FY 09 RSTP funds to begin this effort, but to move this plan forward, it is necessary to first develop the resources and expertise required to model future alternatives and analyze their impacts on the area's transportation system. Significant future allocations of RSTP funds or funds from other sources will be required to develop such a regional vision plan. The first step in the process (to be conducted in FY 10) will be the development of a report on in-house

transportation demand modeling and forecasting capabilities to support not only the vision plan for the region, but also to support development of future LRTPs and other planning applications (see UWP task 2.3, Regional Travel Demand Model). Following MPO review and action on this report, staff will proceed with appropriate actions for securing required funds and developing staff resources.

In FY 10, staff's efforts will be focused on maintenance activities associated with the 2031 LRTP, as well as taking early steps toward developing the next LRTP update and possibly a vision plan for the region. In particular, staff will be developing new capabilities for analyzing and forecasting transportation demand. In cooperation with VDOT, staff will be engaged in updating demographic base year data and forecasts for the regional air quality conformity model (for details see UWP Task 2.1 description), which also will be adapted for use as a transportation demand forecasting model to assist with the LRTP update and associated research. Staff will be conferring with other MPOs in Virginia and elsewhere to help develop a transportation demand modeling capability for the Richmond area. Such modeling capability will enable staff to analyze the impacts of various proposals for transportation improvements, to present research in clearly understood visual terms, and thereby improve the overall decision making process for selecting alternatives to be included in the LRTP. This will be a significant effort likely to extend over several years.

As a result of the American Recovery and Reinvestment Act (ARRA), new funding has been made available to the Richmond area for transportation improvements. Projects to be funded from this source may create a need to amend the 2031 LRTP during FY 10. This may result because the project was not previously included in the list of financially constrained projects, or because regionally significant projects are moved ahead of the schedule previously anticipated. Project advancement of this sort could require additional air quality conformity analyses.

It also should be noted that SAFETEA-LU will expire during FY 2010 (in September 2009) and congressional reauthorization of a new federal transportation act is anticipated. Staff will need to monitor the reauthorization and integrate any new/revised metropolitan planning rules and regulations into the planning process for the Richmond area.

**B. End Products**

1. Maintenance of a conforming and financially constrained 2031 LRTP.
2. Amendments to the 2031 LRTP as necessary.
3. Community outreach to increase public awareness and involvement in the long range planning process (conducted in coordination with the MPO's public participation plan; see UWP task 1.2).

**C. Work Elements**

1. Continue efforts in community outreach to expand public involvement in the LRTP planning process; changes and upgrades to the RRPDC website;

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publication and distribution of LRTP summaries, fact sheets and guides to the planning process; and presentations to interested groups and organizations.

2. Conduct LRTP amendments as necessary (may require conducting air quality conformity analysis, financial capacity analysis, environmental justice analysis, and public review process).
3. Monitor federal transportation reauthorization as it applies to metropolitan planning rules and regulations; advise the TAC, MPO and other interested parties on how the reauthorization will impact development/maintenance of the LRTP; conduct any required changes to ensure the LRTP conforms to any new requirements.
4. Functional Classification – Review requests for functional classification and reclassification and submit for MPO review and action.
5. Review highway construction plans for conformance with the adopted Transportation Plan [VDOT and RRPDC].
6. Maintain/update computer software, staff training, and direct costs [VDOT].

**D. Agency Participation**

RRPDC, VDOT, VDRPT, VDEQ, local governments, CRAC, GRTC, RMA, Port of Richmond, FHWA, FTA, and RideFinders.

**E. Budget, Staff and Funding**

	<u>PL<sup>①</sup></u>	<u>5303</u>	<u>CO</u> <u>5303</u>	<u>TOTAL</u>
RRPDC	20,000	10,000	5,000	\$35,000

<sup>①</sup> 4/8/10 MPO action to subtract \$25,000 in PL funds (shifted to other RRPDC staff work tasks).

**F. Schedule**

1. Ongoing maintenance of LRTP, amendments, public outreach coordination, plan reviews, etc to occur throughout FY10.
2. November 2009 to June 2010 for carrying out actions/activities approved in report on acquisition of staff resources/training needed for in house transportation demand modeling and forecasting program (see UWP task 2.3).
3. Other work activities – ongoing.

**2.3 Regional Travel Demand Model (RTDM)**

**A. Background**

VDOT is currently conducting an extensive review of the regional travel demand model. Work is currently underway in the region as part of an enhanced National Household Transportation Survey (NHTB) to develop household surveys to be used to calibrate the new travel demand model. In addition, VDOT is reassessing its role in supporting regional plans and studies requiring use of the regional travel demand model. VDOT has indicated that at a minimum, there will continue to be a need for a model that can be used in conducting regional air quality conformity analysis; however, VDOT may not have future staff resources available to support more than this minimal effort. VDOT has urged the MPO to develop additional in-house technical analysis capabilities to support regional travel demand modeling. The MPO's 2031 LRTP Advisory Committee's report on "Recommendations for Conducting the Next LRTP Update" (approved at the November 13, 2008 MPO meeting) recognized the need for developing travel demand model capabilities and offered the following recommendations:

- Develop and maintain in-house capacity to conduct travel demand modeling for the region; evaluate alternative modeling software for best fit; learn from other MPOs; educate Committee on technical capabilities of modeling
- Conduct alternative scenario analyses at a scale sufficient to aid project selection decisions
- Incorporate assessment of land use impacts on transportation network, with eye toward future energy supply/alternatives/environmental impact

RRPDC staff plans to initiate work on this report in late FY 2009 and is tentatively planning to have a report ready for the Technical Advisory Committee (TAC) and Citizens Transportation Advisory Committee (CTAC) review in the second quarter of FY 10 (October to December).

**B. End Products**

Report to TAC, CTAC and MPO providing recommendations for conducting and staffing the region's travel demand model including RRPDC and VDOT roles, responsibilities and funding for this effort. This report should address the region's needs for expanded and enhanced technical capabilities to provide better decision support tools, available VDOT staffing and its roles and responsibilities, proposed

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RRPDC staffing and its roles and responsibilities, MPO funding support and budget requirements and a phased approach to implement this effort.

**C. Work Efforts**

1. Research and report on travel demand models for other MPOs, their applications for regional planning, and budget and staffing requirements.
2. Develop initial report on current and proposed VDOT staffing roles and responsibilities for support of the region’s travel demand model and current RRPDC staff support activities.
3. Develop report on range of regional travel demand model applications, uses and limitations.
4. Develop report on a phased approach for developing, funding and staffing a regional travel demand model program including identification of initial functions and applications, required data inputs, hardware and software support, VDOT and RRPDC staffing roles and responsibilities, and proposed staffing and funding.
5. Present draft report for TAC and CTAC review, comment and recommendation.
6. Present final draft report for MPO review and action.

**D. Agency Participation**

RRPDC, VDOT, VDRPT, GRTC, FHWA, FTA, local governments.

**E. Budget, Staff and Funding**

	<u>PL<sup>③④</sup></u>	<u>FY 09 CO 5303<sup>①</sup></u>	<u>5303<sup>②</sup></u>	<u>TOTAL</u>
RRPDC	20,000	7,000	10,000	\$37,000

- ① 8/27/09 MPO action to add \$2,000 in FY 10 FTA Section 5303 funds.
- ② 11/19/09 MPO action to add \$5,000 in FTA Section 5303 funds.
- ③ 1/21/10 MPO action to add \$78,000 in FHWA/PL funds.
- ④ 4/8/10 MPO action to subtract \$78,000 in PL funds (shifted to other RRPDC staff work tasks).

**F. Schedule**

1. July to September – Develop draft report (work to be initiated in FY 09 as part of UWP task 2.2)
2. September to October – Present and review draft report with TAC and CTAC.
3. November to December – Present final draft report for MPO review and action.

**2.5 Transportation Data Base Development/GIS**

**A. Background**

Conducting the MPO's regional transportation planning and programming process involves extensive work efforts to develop data and information on the region's transportation network. While some of this information is developed by RRPDC staff, a great deal is developed by VDOT, VDRPT, consultants, area local governments, and others. Much of this information is of interest to area local governments, transportation agencies, business and marketing firms, educational institutions, citizens groups, and others. Responding to information requests involving certain data items often results in staff work to develop the appropriate information, refer the requesting organization/individual to another agency, or advising them that the information is not available. This UWP task provides for work by RRPDC staff to develop data bases and informational reports on the region's transportation system, and to develop and distribute reports, maps, and other information.

This UWP task also provides for staff development and maintenance of Geographic Information System (GIS) staff services. The use of GIS has become an integral part of the transportation planning process, providing an ability to work with map information and to graphically display various features, data, and other characteristics in various formats. The GIS system also provides staff the ability to link map and data information to conduct transportation systems analysis.

**B. End Products**

1. Informational reports, maps, inventories, and other documents, reporting on transportation activities and development.
2. GIS support for MPO plans, programs, studies, and other work activities.

**C. Work Elements**

1. Development of transportation data for use in various reports, studies, plans and programs.
2. Develop, print and distribute informational reports on transportation plans, programs, activities, and data.
3. Work with VDOT to update information placed in the Richmond Area MPO GIS data base for use in preparing MPO plans, programs, and studies.

4. GIS support as follows:
  - a. Serve as agency GIS program manager which includes:
    - Maintaining agency GIS server
    - Guide other staff GIS work by determining work procedures, providing necessary training and promoting GIS program efficiency.
    - Oversee development of map products by conducting initial review meetings with assigned staff, providing assistance when necessary, reviewing final draft map products, and filing/storing final map products in GIS server files.
  - b. Provide technical assistance to staff and outside jurisdictions/agencies (when requested) for developing maps and data linked to GIS maps.
  - c. Staff support for development of maps and data linked to GIS map system. Includes staff work in support of the LRTP, CMS, TIP, MPO annual public review meetings, and other staff plan and study work tasks.
5. Maintenance and support for the RRPDC’s street name clearing house program.

**D. Agency Participation**

RRPDC, VDOT, VDRPT, FHWA, FTA, local governments, GRTC, CRAC, RMA, RideFinders.

**E. Budget, Staff and Funding**

	<u>PL<sup>①</sup></u>	<u>5303</u>	<u>TOTAL</u>
RRPDC	80,000	20,000	\$100,000

<sup>①</sup> 4/8/10 MPO action to subtract \$40,000 in PL funds (shifted to other RRPDC staff work tasks).

**F. Schedule**

Ongoing

**2.8 Route 5 Urban/Suburban Multimodal Corridor Study**

**A. Background**

Conduct study of the Route 5 corridor between downtown Richmond and Route 895 to determine various corridor transportation needs and improvements. The study will be conducted by a consultant using VDOT/SPR funds. The RRPDC staff will administer the study with technical review by a study work group (composed of RRPDC, VDOT, Henrico, Richmond and GRTC staffs). Specific study purposes are as follows:

1. Determine the safety and integrity of existing transportation infrastructure, including vehicle, bicycle, pedestrian and mass transit infrastructure.
2. Formulate and assess the feasibility of several multimodal transportation scenarios (including vehicles, bicyclists, pedestrians, and mass transit) to meet travel needs.
3. Develop a consensus for a preferred scenario for implementation.
4. Provide future recommended improvements.
5. Prioritize recommended new transportation services and improvements for project phasing purposes.
6. Provide detailed recommendations to incorporate multimodal transportation infrastructure (i.e., roads, mass transit, paratransit, bicycle, and pedestrian facilities) into proposed new developments.

The study will utilize innovative modeling techniques with an appropriate level of sensitivity to project and assess capacity, demand, and constraints within the study area over a long term planning horizon of approximately 20 years. A detailed and comprehensive strategy for addressing travel and mobility needs within the area is expected including analysis by various modes of travel (i.e., by automobiles and trucks, local and express bus, bus rapid transit, paratransit, pedestrian, and bicycles). The study is expected to include analysis of several scenarios to accommodate future developments. These scenarios are anticipated as follows:

1. Existing conditions with only existing and committed projects implemented.
2. Evaluation of the proposed programs and projects contained in the adopted regional *2031 Long-Range Transportation Plan* (2031 LRTP) to include those projects and programs in the 2031 LRTP “Vision List.”

## FY 10 UWP Task 2.8

3. Three discrete preliminary scenarios focusing on innovative planning and design solutions developed in collaboration with local jurisdictions.
4. A consensus preferred scenario resulting from local government and public input.

The study consultant will also conduct the public review and participation process, and will present the final draft study for CTAC and TAC review and recommendation, and for MPO review and action.

### **B. End Products**

The end product shall be a study that provides findings on transportation needs, and recommends practical and innovative solutions for transportation facilities and services to meet those needs. Certain deliverables are required, especially including a sub-area transportation demand model that can be utilized by the study work group, jurisdictions, and agencies to conduct follow-up research and analysis in the study area. In addition, the study shall, at a minimum, address the following parameters:

1. At least three (3) preliminary scenarios shall be prepared showing alternative transportation solutions, meeting the criteria in items a. through d. below.
  - a. Findings and recommendations based on an overall planning horizon of approximately 20 years, and within that time frame, short- and long-term strategies and policy changes addressed.
  - b. Estimated costs for proposed transportation facilities and services within the given time frames and with reasonable considerations for inflation.
  - c. Graphical depiction (GIS based) of all recommended projects and services.
  - d. Supporting technical documentation of all work and delivery of work documents to study work group members.
2. A preferred scenario resulting from the technical analysis and citizen input process, and which is accepted by the study work group, and ultimately, by the MPO. In addition to meeting the criteria applicable to the preliminary scenarios, the preferred scenario shall also include the criteria specified in items e. through g. below.
  - e. Responsible public entity (e.g., state or local government, transportation service provider, etc.) for the recommended transportation facilities and services.

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- f. Innovative funding mechanisms for project development and service operation.
- g. Documentation of results of public participation activities and how the preferred scenario was selected.

**C. Work Elements**

(To be determined based on consultant services agreement.)

**D. Agency Participation**

RRPDC, VDOT, VDRPT, City of Richmond, Henrico County, GRTC, FHWA, FTA.

**E. Budget, Staff and Funding**

	<u>PL<sup>③</sup></u>	<u>5303</u>	<u>FY 09 CO 5303<sup>②</sup></u>	<u>SPR</u>	<u>TOTAL</u>
RRPDC	30,000	20,000	10,000	-	60,000
RRPDC Consultant	<u>-</u>	<u>-</u>	<u>-</u>	<u>400,000<sup>①</sup></u>	<u>400,000</u>
<b>TOTAL</b>	<u>30,000</u>	<u>20,000</u>	<u>10,000</u>	<u>400,000</u>	<u>\$460,000</u>

① \$400,000 in FHWA/SPR funds transferred from FY 09 UWP.

② 11/19/09 MPO action to add \$10,000 in FY 09 FTA Section 5303 funds.

③ 4/8/10 MPO action to subtract \$8,000 in PL funds (shifted to other RRPDC staff work tasks).

**F. Schedule**

To be determined upon execution of RRPDC/consultant services agreement(s).

**2.9 Richmond Strategic Multimodal Transportation Plan**

**A. Background**

In 1997, the City of Richmond contracted with Michael Baker Jr. Inc. for the development of the City of Richmond Transportation Plan. The document analyzed the existing conditions of the various modes of travel within the City, developed multimodal goals/objectives/policies and developed recommendations for implementation. This document was incorporated into the City's Master Plan document in 2001.

The goals of the City of Richmond Transportation Plan were:

- To promote a multimodal transportation system which is designed to support the efficient movement of people and goods while respecting the quality of life in neighborhoods and the environmental, cultural, and historic resources of the City.
- To promote alternative modes of transportation to more efficiently address demand on the transportation network.

The transportation vision created in the report promoted the urban qualities of the City providing a transportation system that is seamless, functional and inviting. The goals and vision of the 1997 Plan provide a basis from which to expand upon. Given the high level of growth and development in the City in recent years, particularly in the downtown, a new multimodal transportation plan is needed.

In addition, since the 1997 plan was adopted the transportation planning field has broadened to include essential connections between transportation and land use, a stronger focus on the street network and linkages of multimodal transportation choices, management of urban mobility, best transportation planning practices, transit oriented development, complete streets and other related focus areas while maintaining the core components of a safe and efficient system.

**B. End Products**

A consultant conducted study that will provide a balanced Richmond Strategic Multimodal Transportation Plan (RSMTP) which encompasses specified work elements to best address the City's current and future transportation needs and enhance the safety, mobility and quality of life of the City and the region. The plan will provide a dynamic transportation vision and set the foundation to comprehensively identify the transportation/land use strategies, resources and priorities which will shape the transportation framework of the City.

1. Update the 1997 City of Richmond Transportation Plan.

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2. Coordinate with other transportation studies, programs or projects. The consultants should focus on existing data where practical and maximize use of their transportation planning expertise. It is recognized that there are many current and valid plans for different transportation modes; however, the roadway system assessment will need to be fully updated including future travel demand projections, corridor capacities, level of service assessments and improvements sufficient to provide future safe and efficient travel for all modes of transportation.
3. Identify current multi-modal strengths and deficiencies in the existing transportation/land use system and project anticipated future deficiencies and challenges.
4. Analyze site or topic specific transportation/land use emphasis areas.
5. Coordinate public information/input process.
6. Develop short-term (0-6-year), mid-term (6-15 year) and long-term (15-20 year) multimodal transportation/land use recommendations.
7. Identify Costs/Funding/Priorities.
8. Identify/recommend needed plans, ordinances and policies for implementation.

### **C. Work Elements**

1. Data Collection and Review:
  - Collect and review past and current studies of all modes
  - Coordinate with other programs/projects
  - Confirm traffic volumes, accident/safety data, roadway inventory/physical features, travel demand management programs, land use patterns and projections, socioeconomic demographics, and levels of pedestrian/bicycle activity to the extent practical.
  - Review and understand the philosophies of the 2008 Downtown Plan, 2000-2020 City Master Plan and 1997 City of Richmond Transportation Plan and identify transportation/land use network recommendations

#### Deliverables:

- Summary of past and current studies and other programs as they relate to the RSMTTP

## FY 10 UWP Task 2.9

- Summary of traffic volumes, accident/safety data, roadway inventory/physical features, travel demand management programs, land use patterns and projections, socioeconomic demographics, and levels of pedestrian/bicycle activity to the extent practical.
- Summary of transportation/land use network recommendations of the 2008 Downtown Plan, 2000-2020 City Master Plan and 1997 City of Richmond Transportation Plan as they relate to the RMSTP
- Summary of other pertinent information needed for RMSTP

### 2. Mapping and Future Growth Model Analysis:

- Update base mapping in ArcGIS if necessary (City provides base)
- Database approach combining data in map/database platform
- Analyze intersection density (# of intersections per sq. mile) for defined districts within the City as a means to evaluate connectivity within the street network
- Identify opportunities for greater transportation mode share
- Characterize development patterns
- The VDOT supplied Richmond and Tri-Cities Regional Travel Demand Model may be used as the basis of area wide traffic projections. An important part of the travel demand effort will be ascertaining those corridors and key intersections/gateways that will and will not function safely and efficiently in the future and to develop specific multimodal operational approaches to these deficiencies

#### Deliverables:

- Updated base mapping
- Mapping of databases and pertinent information
- Mapping and analysis of intersection density (# of intersections per sq. mile) for defined districts to evaluate connectivity within the street network, identify opportunities for greater transportation mode share and characterize development patterns
- Area wide traffic projections using VDOT supplied Richmond and Tri-Cities Regional Travel Demand Model
- Identification of corridors and key intersections/gateways that will and will not function safely and efficiently in the future and develop specific multimodal operational approaches to these deficiencies

### 3. Public Outreach and Stakeholder Involvement:

- Meet with RSMTP Advisory Committee and stakeholders as determined
- Develop a public involvement plan which includes hand-on workshops/charettes with presentations to set the stage for the discussion,

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educates the participants and provides an opportunity for meaningful public input that creates the vision and guides the work of the consultant team

- Sharing information – interim and final deliverables posted on City website/newsletter
- Conduct scheduled meetings to present deficiencies and initial thoughts on recommendations to key staff and the Advisory Committee

Deliverables:

- Briefings to RSMTP Advisory Committee, key staff and other interested parties
- Public involvement plan and its implementation
- Deliverables posted on City website/newsletters

#### 4. Existing Conditions Analysis for All Modes:

- Document known multi-modal/land use strengths, deficiencies, constraints and operational issues
- Perform capacity analysis on selected systems/corridors and intersections using available studies to the extent possible

Deliverables:

- Existing Conditions Analysis document containing all modes/land use
- Capacity analysis on selected systems/corridors and intersections

#### 5. Analyze Various Site and Area Wide Issues:

- Analyze potential conversion of limited number of one-way streets to two-way streets in downtown area (using existing Synchro network) – impact on adjacent land use, accidents for vehicles, pedestrians, and bicyclists, level of service, costs, vehicle conflict points, operational evaluation, public education, staged implementation, modeling and mapping
- Evaluate Downtown Plan proposals for street cross sections.
- Provide multimodal recommendations to accommodate infill development proposed in Downtown Plan
- Develop typical concept cross sections for corridors and other defined districts based upon the relationship between land use and the transportation network (e.g. “walkable districts” for Downtown, traditional neighborhood areas and current City Right of Way Design Manual)

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- Review concepts of transit oriented development, complete streets recommendations/guidelines, traditional walkable city recommendations, best transportation planning practices, transportation harmonization and other transportation and land use strategies as they apply to the City of Richmond and its current standards.
- Analyze the impact of interstate and freeway corridors on the City
- Review City functional classification system and assess VDOT funding allocations to ensure the City is capturing available funding.
- Review the impact of current and proposed passenger and freight rail corridors within the City (including transport of hazardous materials and grade crossings)
- Analyze at a functional schematic level key intersection operations for pedestrian, bicyclists, and vehicles at Broad and Belvidere Streets; Downtown Expressway ramp intersections at 7th, 10th, and 12th Streets; Byrd and 9th Streets; Broad and 14th Streets, Maury and 4th Streets and others
- Analyze scenic, historic and critical corridors (Riverside Drive, Monument Avenue, Cary Street/ Three Chopt Road, “Boulevard of Museums”, Belt Boulevard and others) from the point of view of protecting and enhancing their unique character while maintaining their safe and efficient travel function
- Analyze Citywide bridges
- Analyze Citywide Intelligent Transportation Systems (ITS)
- Analyze Citywide signal system
- Analyze Citywide truck routes
- Analyze Citywide bike routes
- Analyze Citywide walking routes and pedestrian guidelines
- Analyze ADA accessibility and policies
- Analyze pedestrian/vehicle issues in university areas
- Analyze parking resources: on and off street parking, permit parking
- Analyze transportation needs of tourists/visitors
- Analyze major events circulation
- Analyze Emergency, Police, Fire, transportation concerns
- Analyze City of Richmond Emergency Evacuation Plan – ESF1
- Analyze downtown transit circulation and GRTC transfer center/s
- Coordinate with VDRPT on GRTC’s Bus Rapid Transit and associated land use proposals

### Deliverable:

- Depending upon the scope and findings of each Task item – a technical memorandum will be provided with appropriate text, tabulation and mapping outlining results and providing recommendations

6. Develop Strategic Multimodal Transportation Vision Statement for the City of Richmond:

- Develop core values that support the Vision Statement
- Develop goals and objectives that support the Vision Statement

Deliverables:

- Multimodal Transportation Vision Statement for the City of Richmond
- Core Values that support the Vision Statement
- Goals and objectives that support the Vision Statement

7. Development of Short-Term, Mid-Term and Long-Term Recommendations:

- Develop specific short-term, mid-term and long-term multimodal/landuse recommendations
- Identify/recommend needed plans, ordinances, strategies and policies for implementation

Deliverables:

- Detailed short-term, mid-term and long-term multimodal/land use recommendations
- Identification of recommend plans, ordinances, strategies and policies needed for implementation

8. Implementation Plan and Funding:

- Prioritize multimodal projects/recommendations and identify implementation years
- Project funding and costs

Deliverables:

- Prioritization of multimodal projects and identification of implementation years
- Detailed Project funding and costs

9. Presentation of Documents, Draft and Final Plan:

- Prepare draft and final documents including Executive Summary and Citizen Guide in hard copy, CD, and PowerPoint Presentation
- Prepare appropriate maps and public information documents

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- Assist with Planning Commission & City Council adoption

Deliverables:

- Maps of concepts and deliverables
- Public information documents of deliverables
- Draft RSMTP including an Executive Summary and Citizen Guide
- Final RSMTP including an Executive Summary and Citizen Guide in hard copy, CD and PowerPoint Presentation
- Scheduled meetings to present draft and final Richmond Strategic Multimodal Transportation Plan to RSMTP Advisory Committee, key staff and interested parties.
- Presentations to the City Planning Commission and City Council

**D. Agency Participation**

City of Richmond, RSMTP Advisory Committee, stakeholders (including RRPDC)

**E. Budget, Staff and Funding**

RSTP

City of Richmond      \$500,000

**F. Schedule**

Specific schedule to be determined; approximately 18 months.

**3.0 MANAGEMENT SYSTEMS/SHORT RANGE PLANNING**

**3.1 Congestion Management System (CMS) Update**

**A. Background**

The Congestion Management System (CMS) serves as a systematic process for addressing congestion by providing information on transportation system performance and proposing use of alternative strategies and programs to help alleviate congestion. Update work on the CMS is conducted as an element of the LRTP update. In addition, the new MPO planning regulations require the MPO to address congestion management through a process that provides for safe and effective integrated management and operation of the multimodal transportation system, based on a cooperatively developed and implemented metropolitan-wide strategy of new existing transportation facilities eligible for funding under title 23 U.S.C. and title 49 U.S.C. Chapter 53, through the use of travel demand reduction and operational management strategies (see Section 450.320 (a) of the MPO planning regulations). MPO planning requirements for development of a “Congestion Management Process” (or CMP) is summarized as follows (see Section 450.320 (b)):

- a. Development of a CMP should result in multimodal system performance measures and strategies that can be reflected in the LRTP and the TIP.
- b. The level of system performance deemed acceptable by state and local transportation officials may vary by facility type, location, and/or time of day.
- c. Consideration should be given to strategies that manage demand, reduce single occupant vehicle (SOV) travel, and improve transportation system management and operations.
- d. Where the addition of general purpose lanes is determined to be an appropriate congestion management strategy, explicit consideration is to be given to the incorporation of appropriate features with the SOV project to facilitate future demand management strategies and operational improvements that will maintain the functional integrity and safety of those lanes.
- e. The CMP shall be developed, established, and implemented as part of the MPO planning process including coordination with transportation system management and operations activities.

The following summarizes other/additional CMP requirements as stated in the MPO planning regulations (see section 450.320 (c)):

- f. Methods to monitor and evaluate the performance of the multimodal transportation system, identify the causes of recurring and non-recurring

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congestion, identify and evaluate alternative strategies, provide information supporting the implementation of actions, and evaluate the effectiveness of implemented actions.

- g. Definition of congestion management objectives and appropriate performance measures to assess the extent of congestion and support the evaluation of the effectiveness of congestion reduction and mobility enhancement strategies. Such measures shall be developed in consultation with operators of major modes of transportation.
  - h. Establishment of a coordinated program for data collection and system performance monitoring. To the extent possible, this data collection program should be coordinated with existing data sources (including archived operational/ITS data) and coordinated with area operations managers.
  - i. Identification and evaluation of the anticipated performance and expected benefits of appropriate congestion management strategies.
  - j. Identification of an implementation schedule, implementation responsibilities, and possible funding sources for each strategy/combination of strategies proposed for implementation.
  - k. Implementation of a process for periodic assessment of the effectiveness of implemented strategies.
2. Work in conducting the CMP corridor reviews was placed on hold with the Richmond nonattainment area (which includes most of the MPO study area) being reclassified to maintenance status. Such a reclassification means that such corridor reviews are not necessary. However, based on the revised (lowered) 8-hour ozone air quality standard of 0.075 parts per million (ppm; previously set at 0.084) and air quality data readings for the past three years, the Richmond Area is in the process of being redesignated to nonattainment air quality status. EPA publication of area designations and classifications is due by March 12, 2010. As a result, a number of additional CMP requirements will apply to the Richmond Area MPO (see Section 450.320 (d) and (e) of the MPO planning regulations). Richmond Area MPO jurisdictions covered by the counties of Charles City, Chesterfield, Hanover (including Ashland), and Henrico. This maintenance/nonattainment area extends into and includes several jurisdictions in the Tri-Cities Area MPO.

Also, note that SAFETEA-LU has expanded the scope of the CMS to include additional considerations for management and operations (i.e., there must be a “process that provides for effective management and operation” to address congestion management). Further review of federal requirements will be needed to identify, program, and staff

## **FY 10 UWP Task 3.1**

these new work activities. Staff will consult with VDOT, RMA, City of Richmond, Henrico County, and Town of Ashland traffic engineering staffs (i.e., those jurisdictions and agencies responsible for highway systems operations) to document current procedures and activities and determine what will be required to meet these new federal requirements.

Section 450.320 (f) of the MPO planning regulations states that state laws, rules, or regulations pertaining to congestion management systems may constitute the CMP if the FHWA and FTA find that the state law, rules, or regulations are consistent with and fulfill the intent of the MPO planning requirements. Staff is not aware of this being the case; however, staff will work with VDOT to incorporate VDOT CMP planning, operational, and management activities into the MPO's process.

VDOT has been charged by the General Assembly with developing performance measures as part of its statewide/multimodal transportation plan. Staff will work with VDOT to identify various performance measures appropriate to the Richmond area and will assist in developing data and analysis for these measures.

For the first time, VDOT will report accident data for all roadways in Virginia, beginning with 2008 data. Previously, this data was reported by VDOT for only VDOT system roads (i.e., Interstate, Primary, and county secondary systems, except for Henrico) and did not report accident data for urban system (i.e., City of Richmond and Town of Ashland) roads and the RMA's downtown expressway and Powhite Parkway. RRPDC staff will develop a system for receiving and storing this data, and utilize it for future CMS and other study work efforts.

### **B. End Products**

1. Report on the "State of the Transportation System" documenting the implementation of congestion reducing strategies and providing other information related to the overall operation of the region's transportation network.
2. GPS travel time runs, vehicle occupancy counts, and development of other data for the next CMS and LRTP update.

### **C. Work Elements**

1. Utilize CMS analysis from the 2031 LRTP as a starting point for the CMS review group's on-going work to analyze congested corridors (initiate following review of CMP).
2. Conduct CMP development requirements as per the new MPO planning regulations (see description of requirements as described in Background section above).

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3. Prepare and publish report on the “State of the Transportation System” documenting the implementation of congestion reducing strategies and providing other information related to the overall operation of the region’s transportation network (work task to continue into FY 11).
4. Conduct GPS travel time runs over the region’s interstate/expressway road network and other major facilities (initiate when required for the next LRTP update). Work on this task should continue into FY 11.
5. Safety – Assemble and review accident location data available from VDOT for the region’s major roadways (roads/corridors included in the CMS network), and initiate analysis to identify high accident locations. Note that starting with 2008 data, VDOT will make available and report accident data for all roads (i.e., VDOT system roads and non-VDOT system roads including Urban, Henrico, and RMA/toll roads).
6. Texas Transportation Institute (TTI) Congestion Reports – Continue to receive, review, analyze TTI congestion data for the Richmond urbanized area.

**D. Agency Participation**

RRPDC, VDOT, Local Governments, GRTC, RideFinders, CRAC, RMA, FHWA, FTA, VDRPT.

**E. Budget, Staff and Funding**

	<u>PL<sup>②</sup></u>	<u>5303</u>	<u>FY 09 CO 5303<sup>①</sup></u>	<u>TOTAL</u>
RRPDC	25,000	20,000	5,000	\$50,000

① 11/19/09 MPO action to add \$5,000 in FY 09 FTA Section 5303 funds.

② 4/8/10 MPO action to subtract \$18,000 in PL funds (shifted to other RRPDC staff work tasks).

**F. Schedule**

1. GPS travel time runs – Initiate in mid/late FY 10 and carry over to FY 11.
2. CMS corridor reviews – Conduct review of work requirements and modify scope as appropriate (early FY 10).
3. Safety Data – Establish process and procedures for receiving and maintaining data.

### **FY 10 UWP Task 3.1**

4. State of the Transportation System – Initiate work on report in late FY 10 and complete in FY 11.
5. Texas Transportation Institute (TTI) Congestion Reports – Ongoing.

### 3.2 Access Management Studies

#### A. **Background**

Access management provides a way to manage access to land development while simultaneously preserving the flow of traffic on the surrounding road system in terms of safety, capacity and speed. Access management provides for managing and planning the spacing and design of driveways, median openings, traffic signals, and interchanges. The goals of access management are as follows:

1. Improve safety while decreasing accident rates.
2. Reduce congestion by using the existing roadway network more efficiently.
3. Maintain desirable speeds along arterials.
4. Reduce interference with through traffic due to turns into or out of a site.
5. Optimize highway function and land use.
6. Provide sufficient spacing between at-grade intersections.
7. Provide adequate on-site storage areas.

Staff has conducted comprehensive access management studies for Powhatan County (in FY 2000) and Goochland County (in FY 2002). For New Kent County, staff conducted a study of economic/business impacts of access controls (in FY 2004).

A minor amount of staff time has been programmed in the FY 10 UWP for addressing questions on previously conducted studies and for review and assistance in related matters.

Staff will also review and report as appropriate on changes to state access management regulations and standards. Note that VDOT has recently conducted a comprehensive review and is in the process of developing proposed new regulations and standards (as of March/April 2009).

#### B. **End Product**

Limited technical assistance to area local governments in addressing access management related matters.

#### C. **Work Tasks**

1. Staff will be available to address questions and provide limited technical assistance for previously conducted access management studies.

**FY 10 UWP Task 3.2**

2. Review other access management related matters and address as appropriate (time and budget permitting).
3. Monitor and report on changes to state requirements related to access management and provide reports to TAC and/or MPO as appropriate.

**D. Agency Participants**

RRPDC, VDOT, FHWA, local governments.

**E. Budget, Staffing, Funding**

PL<sup>①</sup>

RRPDC                      \$10,000

① 4/8/10 MPO action to add \$3,000 in PL funds (shifted from other RPRDC staff work tasks).

**F. Schedule**

Ongoing activity.

**3.3 Intelligent Transportation Systems (ITS) Update**

**A. Background**

The MPO took action at its July 21, 2004 meeting to accept the *Richmond Regional ITS Architecture Report* and the *Richmond Regional ITS Architecture Deployment Plan Report*. Note that the Tri-Cities Area MPO also took action to accept reports since both cover the Richmond and Tri-Cities areas. The ITS Architecture Report identifies the region’s framework for institutional agreements and technical integration of ITS. It defines the pieces of the region’s systems (e.g., traffic signal operations, freeway management, emergency management, public transit operations, etc.) and the information exchanged between them. The *ITS Architecture Deployment Plan* outlines the vision for ITS deployment and identifies and prioritizes projects and “market packages” that are needed to implement the ITS architecture on a high, medium, and low priority basis. It helps to prioritize funding decisions by having a comprehensive shared approach to regional ITS programs so that the infrastructure can be incrementally built out over a 20-year time horizon and allow integration among key foundations of the system as it grows and expands.

As part of the MPO’s July 21, 2004 action on ITS, the MPO’s Technical Advisory Committee (TAC) was designated with conducting annual reviews of these documents with VDOT providing technical assistance of these services and with TAC and RRPDC staff reporting on the implementation status of ITS projects and providing recommendations for updates and/or changes to the region’s ITS architecture report and deployment plan. It was recommended that such reviews be conducted at the January TAC meeting (based on work by VDOT staff to prepare proposed projects for consideration in the upcoming VDOT Six-Year Improvement Plan). The MPO took further action to direct that it be provided with an annual report on ITS applications and implementation including the status of ITS projects, funding, and new technologies.

The RRPDC was advised by VDOT in late March 2009 that the Richmond Regional ITS Architecture Deployment Plan Report has been updated and was approved by FHWA in March 2009. Staff will review this approved report and work with VDOT and other appropriate agencies and jurisdictions to implement various actions and recommendations. It should be noted that due to staffing vacancies and other MPO work priorities, the RRPDC has not followed up with VDOT on various ITS work activities and programs.

**B. End Product**

Review and report on the *Richmond Regional ITS Architecture Report* and *Richmond Regional ITS Architecture Deployment Plan Report*.

**C. Work Elements**

Work activities conducted by RRPDC staff with assistance from VDOT and in coordination with Tri-Cities Area MPO include the following:

1. Conduct annual review of the *Richmond Regional ITS Architecture Report* and the *Richmond Regional ITS Architecture Deployment Plan* in coordination with Tri-Cities Area MPO, with VDOT providing technical assistance of the reviews and with TAC and RRPDC staff reporting on the implementation status of ITS projects and recommendations for updates and/or changes to the region’s ITS architecture report and deployment plan.
2. As part of its annual report to the MPO, provide a report on ITS applications and implementation including the status of ITS projects, funding, and new technologies.

**D. Agency Participation**

RRPDC, VDOT, VDRPT, local governments, GRTC, RMA, CRAC, FHWA, FTA.

**E. Budget, Staff and Funding**

	<u>PL<sup>②</sup></u>	<u>5303</u>	<u>FY 09 CO</u> <u>5303<sup>①</sup></u>	<u>TOTAL</u>
RRPDC	20,000	10,000	5,000	\$35,000

① 11/19/09 MPO action to add \$5,000 in FY 09 FTA Section 5303 funds.

② 4/8/10 MPO action to subtract \$3,000 in PL funds (shifted to other RRPDC staff work tasks).

**F. Schedule**

1. Annual review and report on Architecture Report and Deployment Plan – July 2009 to March 2010.
2. Other ITS development/support activities – ongoing.

**4.0 TRANSPORTATION PROJECT PROGRAMMING**

**4.1 Transportation Improvement Program (TIP)**

**A. Background**

The TIP programs highway and transit projects for which funds have been or are scheduled to be obligated over a four-year period. Once approved as part of the TIP, federally funded projects can proceed to the next stage of implementation. Major highway projects that are funded by state, local, or other funding sources are included in the TIP for air quality conformity analysis or information purposes.

There are a number of federal-aid highway programs (i.e., administered by FHWA) which, in order to be eligible for use by the implementing agency, must be programmed in the TIP. This includes the following:

1. Equity Bonus
2. Interstate Maintenance (IM)
3. National Highway System (NHS)
4. Bridge
5. Surface Transportation Program (STP)
6. Regional Surface Transportation Program (STP subprogram for urbanized areas with greater than 200,000 population)
7. Highway Safety Improvement Program (HSIP)
8. Congestion Mitigation and Air Quality Improvement (CMAQ)
9. Recreational Trails
10. Safe Routes to Schools
11. Rail-Highway Grade Crossing
12. Highway Priority Projects (Congressional Earmarks)
13. Transportation Enhancements
14. Transportation, Community, and System Presentation Program (TCSP)
15. Scenic Byways
16. Federal Lands Highway Program (FLHP)

There are also funds available under federal-aid transit programs (i.e., administered by FTA) which, in order to be eligible for use by the implementing agency, must be programmed in the TIP. This includes the following:

1. Sections 5307 and 5340 – Urbanized Areas
2. Section 5308 – Clean Fuels Grant Program
3. Section 5309 – Capital Investment Grants “New Starts”
4. Section 5309 and 5318 – Bus and Bus Facility Grants
5. Section 5310 – Elderly and Persons with Disabilities
6. Section 5316 – Job Access and Reverse Commute (JARC)

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7. Section 5317 – New Freedom Program
8. Section 5320 – Transit in the Parks

Project descriptions include implementing agency, location/service area, cost estimates, funding sources, amount of funds actually or scheduled for allocation, type of improvement, and other appropriate information. The TIP also includes a financial plan summary, GRTC's Financial Capacity documentation and certification, project implementation status, public participation and the MPO/State Statement of Certification.

Note that SAFETEA-LU provides several significant changes to the TIP development process and document content which includes the following:

- The TIP must be updated at least every four years and contain at least four years of projects and strategies. Staff recommends that the TIP be updated annually based on state's current process to annually adopt the SYIP.
- The TIP must be developed through the MPO's adopted *Public Participation Plan* (adopted by MPO on April 12, 2007 and SAFETEA-LU compliant).
- Visualization techniques shall be employed to describe the TIP.
- The TIP shall be made available in electronically accessible formats (such as the RRPDC web site).
- SAFETEA-LU specifies that the development of the annual listing of obligated projects "shall be a cooperative effort of the state, transit operator, and MPO" and also shall include two new project types: "investments in pedestrian walkways and bicycle transportation facilities" for which federal funds have been obligated in the preceding year.
- The TIP will contain: priority list of projects and strategies for four years; financial plan; and description of work (type of work, termini, length, etc.) of each project in the TIP.

It should be noted that SAFETEA-LU will expire in FY 2010 (in September 2009) and Congressional reauthorization of a new federal transportation act (or extension of SAFETEA-LU) is anticipated. Staff will monitor the reauthorization and integrate any new/revised metropolitan planning regulations as they come into effect.

An integral component of the TIP development process is VDOT's Six Year Improvement Program (SYIP) review and development process. VDOT has

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developed and implemented a prioritization process for proposed projects, which features the following:

- Objective scoring method for proposed projects – Measures include vehicle volume; percentage of heavy trucks; flow rate; utilization of existing state-owned right-of-way; bridge conditions; and various other non-quantifiable factors.
- Information driven process – Allows for consideration of “soft factors: such as regional support; ability to leverage other funding sources; project phasing; and route continuity.
- VDOT review teams – One team for interstate projects (statewide) and one team per VDOT construction district for primary system projects. Review teams include the district administrator; construction, preliminary engineering, and maintenance managers; district planner; Transportation Mobility Planning Division (TMPD) district coordinator; and staff person from TMPD’s statewide planning office.

This process was used prior to the fall 2005 preallocation public hearings and may be modified for future SYIPs.

Significant changes have also been made as part of the MPO’s process in reviewing and selecting RSTP and CMAQ funded projects (note that the MPO has lead authority for the review and selection of RSTP and CMAQ funded projects). Based on the August 19, 2004 FTA/FHWA certification review corrective action number five (for RSTP) and programmatic recommendation number one (for CMAQ), a new review and selection process for RSTP and CMAQ funded projects was adopted by the MPO on December 9, 2004. This new process provided interim procedures for programming FY 06 and FY 07 RSTP and CMAQ funds (funds used for existing projects with limited ability to program any new projects). The competitive review and selection process was fully implemented starting with the programming of FY 09 RSTP and CMAQ funded projects.

Essential elements of the TIP previously required under ISTEA and TEA-21 are as follows:

1. Approval and Updates – The TIP must be approved by the MPO and the Governor, and must be updated at least every four years. The Richmond Area MPO’s TIP is currently scheduled to be updated on an annual basis based on VDOT’s annual preparation of the state’s Six-Year Improvement Program.
2. Scope of TIP – The TIP must include all projects within the MPO’s Study Area (including pedestrian walkways and bicycle transportation facilities) to be funded under Title 23 and the FTA.

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3. Financial Plan – The TIP must include a financial plan component or element. The financial plan must demonstrate how the TIP can be implemented, and indicate resources from public and private sources that are reasonably expected to be made available to carry out the plan.
4. Project Priorities – The TIP must include a priority list of projects to be carried out over a four-year period, and a financial plan that demonstrates how it can be implemented. Projects within a funding category for a particular year can serve as an indicator of priority, such that first year projects are the highest priority, second year projects are the next highest priority, etc. Procedures or agreements that distribute sub-allocated STP or funds under 49 U.S.C. 5307 to individual jurisdictions or modes within the metropolitan planning area by predetermined percentages or formulas are inconsistent with legislative provisions that require the MPO, in cooperation with the state and public transportation operator, to develop a prioritized and financially constrained TIP, and shall not be used unless they can be clearly shown to be based on considerations required to be addressed as part of the MPO's planning process.
5. Included Projects – The TIP shall include capital and non-capital surface transportation projects (or phases of projects) within the boundaries of the metropolitan planning area proposed for funding under 23 U.S.C. and 49 U.S.C. Chapter 53 (including transportation enhancements, Federal Lands Highway program projects, safety projects included in the state's Strategic Highway Safety Plan, trails projects, pedestrian walkways, and bicycle facilities), except the following do not necessarily have to be included:
  - a. Safety projects funded under 23 U.S.C. 402 and 49 U.S.C. 31102;
  - b. Metropolitan planning projects funded under 23 U.S.C. 104 (f), 49 U.S.C. 5305 (d), and 49 U.S.C. 5339;
  - c. State planning and research projects funded under 23 U.S.C. 505 and 49 U.S.C. 5305 (e);
  - d. At the discretion of the state and MPO, state planning and research projects funded with National Highway System, STP, and/or Equity Bonus funds;
  - e. Emergency relief projects (except those involving substantial functional, locational, or capacity changes);
  - f. National planning and research projects funded under 49 U.S.C. 5314; and
  - g. Project management oversight projects funded under 49 U.S.C. 5327.

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6. Project Selection – All federally funded projects, except NHS, Bridge, Interstate Maintenance and Federal Lands Highway Program projects are to be selected by the MPO in consultation with the state and public transportation operator (GRTC) from the approved TIP and in accordance with the TIP priorities. Projects that are on the NHS and projects funded under the Bridge and Interstate Maintenance programs are to be selected by the state in cooperation with the MPO from the approved TIP. Federal Lands Highway program projects shall be selected in accordance with procedures developed pursuant to 23 U.S.C. 204. The TIP serves as the project selection document.
7. Transportation Plan Consistency – All federally funded TIP projects must be consistent with the MPO's adopted Transportation Plan. As a management tool for monitoring progress in implementing the transportation plan, the TIP should:
  - a. Identify criteria and process for prioritizing implementation of transportation plan elements (including multimodal trade-offs) for inclusion in the TIP and any changes in priorities from the previous TIP; and
  - b. List major projects from the previous TIP that were implemented and identify any significant delays in the planned implementation of major projects.
8. Air Quality Conformity – The MPO, along with FHWA and FTA, must make a conformity determination for projects listed in the proposed TIP, or for amendments that add or delete regionally significant projects. Conformity is generally defined in the CAAA as conforming to the adopted State Implementation Plan's purpose for eliminating and reducing the severity and number of NAAQS violations and achieving attainment status. In other words, the implementation of TIP projects must be shown to serve as part of the region's effort to improve air quality.
9. Agencies/Public Review and Comment – The public, affected agencies, representatives of transportation agency employees, other affected employee representatives, private providers of transportation, and other interested parties must receive a reasonable opportunity to comment on the proposed program.
10. Environmental Justice – Assessment and documentation of the distributional effects of the metropolitan transportation investments are provided through the MPO's LRTP and VDOT's use of the NEPA process. The NEPA process that is completed by VDOT (or project administrator) address project specific Environmental Justice (EJ) analysis and documentation. With a regional level assessment of EJ covered by the LRTP and with project level EJ analysis covered by the NEPA process, an EJ component is not required at the TIP level.

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11. MPO Certification – In TMA's, the USDOT Secretary shall certify the planning process at least once every four years. A joint FHWA/FTA review was conducted in May 2004, and on August 19, 2004 the MPO was conditionally certified, subject to five corrective action issues. Note that the most recent federal certification review was conducted on March 25-26, 2009. A preliminary report is expected from FHWA in May or June 2009, with a final report expected in early FY 2010.
12. The state, public transportation operator and MPO shall, on an annual basis and within 90 days following the end of a program year, cooperatively develop a listing of projects (including investments in pedestrian walkways and bicycle transportation facilities) for which funds under 23 U.S.C. or 49 U.S.C. Chapter 53 were obligated in the preceding program year. This listing shall be prepared in accordance with Section 450.314 (a) of the MPO planning regulations and shall include all federally funded projects authorized or revised to increase obligations in the preceding program year, and shall at a minimum include the TIP information under Section 450.324 (e) (1) and (4) and identify for each project the amount of federal funds requested in the TIP, the federal funding that was obligated during the preceding year, and the federal funding remaining and available for subsequent years. This listing shall be made available public review in accordance with the MPO's public participation criteria for the TIP.
13. Freight shippers, providers of freight transportation services, and representatives of users of public transit are added to the list of parties that must be given the opportunity for review and comment on plans and TIP's.

Note that the TIP is posted on the RRPDC's web site and updates are made when the TIP is amended or adjusted (i.e., changes which the RRPDC staff is authorized to make to the TIP).

### **B. End Products**

1. Conduct and complete work on the FY 10 – FY 13 TIP.
2. MPO's Statement of Certification (conducted with action to adopt new TIP).
3. Annual listing of obligated projects from preceding program year. (Projects to be posted on RRPDC web site by December 30, 2009).
4. Maintenance activities in support of the current TIP including processing of TIP amendment and adjustment requests; and maintenance of records tracking the programming of Regional STP and CMAQ funds.
5. Development and submission of the MPO's list of regional transportation priority projects.

6. Identification of small scale projects with a cumulative significant impact and submission of these projects to the CTB (along with regional priority projects).

**C. Work Elements**

Work activities include the following:

1. Amendments/Adjustments – Based on requests from VDOT, local governments, GRTC, and other transportation agencies, RRPDC staff prepares and submits proposed amendments for TAC review and recommendation and for MPO action. Based on action taken at the July 14, 2005 MPO meeting, RRPDC staff is authorized to make certain changes to the TIP consultation with and written agreement from local government/agency TAC members and VDOT. Note that VDOT is responsible for advising the MPO as to the availability and amount of federal transportation funds to be obligated and this information is needed before proposed amendments/adjustments can be submitted for appropriate review and action.
2. Regional Surface Transportation Program (RSTP)/Congestion Mitigation/Air Quality (CMAQ) Tracking Sheets – Maintain record of RSTP and CMAQ funds allocated for area projects including record of past and current allocations and project close-out (showing funds remaining after project completion).
3. RSTP/CMAQ Project Selection – Conduct process for preparing and selecting RSTP and CMAQ projects and program selected projects in the TIP.
4. TIP Participation Plan – Conduct participation plan that specifies procedures and process for providing reasonable opportunity for interested parties to comment on the content of the TIP.
5. TIP Development – Prepare the four-year list of proposed projects and strategies based on submissions by area local governments, VDOT, VDRPT, GRTC, CRAC, and RideFinders. Conduct various documentation requirements for incorporation into the TIP document. Note that the annual listing of obligated projects “shall be a cooperative effort of the state, transit operator, and MPO” and also shall include two new project types: “investments in pedestrian walkways and bicycle transportation facilities” for which federal funds have been obligated in the preceding year.
6. Public Review – Conduct public review process for final draft TIP document and air quality conformity analysis findings. Adopted TIP document, RSTP and CMAQ allocations, and regional priority projects should be posted in the RRPDC web site.

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7. Visualization Techniques – Visualization techniques shall be employed to describe the TIP.
8. Conformity Analysis – Coordinate work by VDOT to review and analyze projects in the TIP for conformity to air quality requirements. Also, provide assistance for work by the Interagency Consultation Group to conduct the conformity analysis process (lead work conducted by VDOT Environmental Division).
9. Regionally Significant Projects – Under VDOT guidance, coordinate identification of regionally significant public and private transportation projects and submit to VDOT for air quality analysis purposes.
10. Federal Transportation Administration (FTA) Section 5310 Projects – Provide information on Section 5310 funds program to EDAC, area local governments and human service agencies. Action taken by the MPO to endorse requests for Section 5310 funding. Projects selected by the CTB and programmed in VDOT’s Six Year Improvement Program. Selected projects are then reviewed by VDOT and recommended by VDOT for programming in the TIP given sufficient funds for obligation purposes. (Note that under SAFETEA-LU, FTA Section 5310 funds as well as Section 5316 Job Access and Reverse Commute and Section 5317 New Freedom programs will be subject to a locally developed, coordinated public transit – human services transportation plan; see UWP task 5.6.).
11. Enhancement Projects – Action taken by the MPO to endorse requests for transportation enhancement program funds. Projects are selected by the CTB and programmed in VDOT’s Six Year Improvement Program. Selected projects are then reviewed by VDOT and recommended by VDOT for programming in the TIP given sufficient funds for obligation purposes.
12. Regional Priority Projects – Prepare and provide the region’s lists of priority projects to CTB for consideration during the annual financial planning and programming funds allocation meeting. Note that proposed priority projects are submitted to the MPO on one of four separate lists as follows:
  - Fully funded projects
  - Current priority projects with balances to complete
  - Current priority projects with no funding allocations
  - Proposed new priority projects

The MPO develops its list of proposed projects based on input from TAC, CTAC, and EDAC, and based on the report of the Executive Committee.

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13. Coordinate listing and description of progress in the implementation of TCM's (if appropriate).
14. TIP Availability in Electronically Accessible Format – (new SAFETEA-LU requirement) – Post MPO adopted TIP and other appropriate documents on the RRPDC web site.
15. Prepare and process MPO Statement of Certification and supporting documentation for the area's "3-C" Transportation Planning Process.
16. Annual listing of obligated projects from the preceding program year (to be posted on RRPDC web site by December 30, 2009; VDOT to submit project information by December 1, 2009.)

**D. Agency Participation**

RRPDC, VDOT, VDEQ, VDRPT, Local Governments, GRTC, FHWA, EPA, FTA, RideFinders, CRAC, paratransit and other transportation operators, freight shippers, providers of freight transportation services, and representatives of users of public transit.

**E. Budget, Staff and Funding**

	<u>PL<sup>①</sup></u>	<u>CO</u> <u>5303</u>	<u>TOTAL</u>
RRPDC	200,000	20,000	\$220,000

<sup>①</sup> 4/8/10 MPO action to add \$35,000 in PL funds (shifted from other RRPDC staff work tasks).

**F. Schedule**

1. FY 10/13 TIP – FY 09 to mid-FY 10 (VDOT to advise MPO as to schedule for submission).
2. TIP Amendments/Adjustments – Ongoing activity
3. Regional Priority Projects – July 2009 to October 2009
4. FY 11 to FY 14 RSTP/CMAQ Project Review and Selection – December 2009 to April 2010.

**5.0 TRANSIT PLANNING**

**5.2 Elderly and Disabled Transportation Needs and Services**

**A. Background**

The Elderly and Disabled Advisory Committee (EDAC) is composed of individuals and organizations representing the region's elderly, disabled, and low income groups and advises the MPO on plans, studies, issues, and other matters related to the planning of public transportation services. It also assists GRTC by advising them of public transportation needs and issues of concern to the elderly and disabled community. EDAC will also serve as a review committee for work on UWP task 5.6, Coordinated Human Services Mobility Plan (see UWP task 5.6).

This task provides RRPDC staff support to ensure an active and involved EDAC and to assist the committee in developing up-to-date information on transportation needs of elderly and disabled in the Richmond area, their transportation needs, and available transportation services and resources. This task also provides for staff participation in various study activities addressing the region's specialized transportation services and serving on advisory committees involved with specialized transportation needs and services.

Staff prepares and submits EDAC meeting agendas and agenda attachments to several EDAC members by e-mail in an accessible format that allows visually impaired committee members to receive and read these materials. Information posted on the RRPDC/MPO web site is also accessible to these members.

**B. End Products**

1. A functional and viable process that advises the MPO and GRTC on the special transportation needs of the elderly and disabled, and provides reports on elderly and disabled transportation needs and services.
2. Updated Transportation Operators Inventory report.

**C. Work Elements**

1. Provide administrative and technical staff support for the EDAC.
2. Provide for EDAC review and participation in developing the Human Services Public Transportation Coordination Plan (see UWP task 5.6).
3. Update the Transportation Operators Inventory report of human service agencies, public transportation, and private transportation service providers. This is primarily an inventory of service operators, vehicles, contact information, and includes limited service information.

**FY 10 UWP Task 5.2**

4. Conduct review of transportation services provided by area human service agencies and organizations, and private operators to determine current service areas and levels of service (review last conducted in February 2006 as part of the *Public Transportation for the Elderly, Disabled, and Low-Income: Phase I – Needs Assessment Report*). Work on this review should be initiated in late FY 2010 and completed in FY 2011.
5. Staff participation on the Red Cross Transportation Advisory Committee and other human/social service agency/organization advisory committees.
6. Coordinate submission of GRTC and CARE reports, proposed policies, and other items for EDAC review and comment, and recommendation. Note that at the request of GRTC, EDAC comments and recommendations are to be submitted directly to GRTC for its review and action as deemed appropriate by GRTC, and to the MPO for its review and information.
7. Provide periodic status reports on various UWP work tasks and activities for EDAC review, information, and action as appropriate.

**D. Agency Participation**

RRPDC, GRTC, VDRPT, local governments, FTA, EDAC appointing organizations, private and human service agency transportation operators.

**E. Budget, Staff and Funding**

	<u>PL<sup>③</sup></u>	<u>5303<sup>①</sup></u>	<u>FY 09 CO 5303<sup>②</sup></u>	<u>TOTAL</u>
RRPDC	25,000	40,000	25,986	\$90,986

① 8/27/09 MPO action to add \$3,000 in FY 10 FTA Section 5303 funds.

② 11/19/09 MPO action to add \$5,986 in FY 09 FTA Section 5303 funds.

③ 4/8/10 MPO action to add \$25,000 in PL funds (shifted from other RRPDC staff work tasks).

**F. Schedule**

1. Transportation Operators Inventory – November 2009 to March 2010.
2. Transportation Services Report – May 2010 to FY 11.
3. Other activities are ongoing.

**5.3 Downtown Circulator Study, Phase II**

**A. Background**

New development in downtown Richmond, the expansion of the regional Convention Center and the opening of Main Street Station have highlighted the importance of convenient, easy-to-use public transportation for employees, residents and visitors. Recognizing the need for mobility within the downtown, GRTC operated a rubber-tire trolley system until 1999, when funding for the program ran out. Community leaders have expressed interest in the establishment of a fixed-rail circulator system in the downtown. GRTC recently completed a Phase I feasibility study, called the "Downtown Richmond Streetcar Study," describing an electric streetcar system that would provide an appropriate circulator system for downtown Richmond. At the request of the City Council, GRTC also commissioned a Phase II study to pursue public input to refine the route and operating characteristics, and to refine cost estimates and recommended funding mechanisms, and any fatal flaws that would prevent this project from moving forward. The Phase II study was not intended to constitute an official FTA-approved NEPA alternatives analysis process. If the City of Richmond wishes to further pursue this project with the use of federal funding, it is understood that the project would require a full alternatives analysis in accordance with all applicable federal requirements.

The Downtown Richmond Streetcar Study Phase II report was completed in September 2004. The study's remaining funds are being used for follow-up work activities related to the further examination of downtown circulator concepts.

**B. Work Elements**

Complete follow-up work activities associated with the downtown circulator study concept (e.g., develop proposals for City of Richmond staff and elected officials).

## 5.5 Regional Public Transportation Services

### A. Background

The MPO *Regional Mass Transit Study* was completed and approved by the MPO in May 2008. The results from this study were incorporated into the MPO's adopted 2031 Long-Range Transportation Plan (LRTP) update. In addition, the MPO took action at its November 13, 2008 meeting to establish its list of regional priority projects, which included two new transit projects; Broad Street Bus Rapid Transit (from Willow Lawn to Rockett's Landing) and GRTC Downtown Transfer Center.

The MPO is involved with various agencies, jurisdictions, and organizations providing technical assistance and participation in various public transportation services studies, advisory groups and committees, and other activities supporting the development of public transportation services in the region. This work task provides for RRPDC staff participation in such activities. Work activities anticipated for FY 2010 include the following:

- Review/participation in GRTC's Bus Rapid Transit (BRT) Alternatives Analysis for the Broad Street corridor.
- Monitor/review study activities and proposals for extension of the Broad Street BRT line (west along Broad Street to the Short Pump area and east of downtown along the Route 5 corridor to Rocketts Landing and possibly other nearby developments).
- Participation in various VDRPT rail advisory committees and other passenger rail studies (e.g., the Southeast Corridor High Speed Rail Study, the Richmond/Hampton Roads High Speed Rail Study, various proposals for expanded Richmond to Washington passenger rail services, etc.)
- Review of various local and regional proposals for expanded public transportation services.

### B. End Products

Ongoing RRPDC staff review and participation in local and regional public transportation service proposals and studies and state passenger rail studies.

### C. Work Elements

1. Participate in various study advisory committees.
2. Review and report as appropriate on various public transportation and passenger rail services, proposals and studies.

### D. Agency Participation

RRPDC, GRTC, local governments, VDRPT, FTA.

**E. Budget, Staff, and Funding**

	<u>PL<sup>③</sup></u>	<u>5303<sup>①</sup></u>	<u>FY 09 CO 5303<sup>②</sup></u>	<u>TOTAL</u>
RRPDC	20,000	25,000	10,000	\$55,000

① 8/27/09 MPO action to add \$4,000 in FY 10 FTA Section 5303 funds.

② 11/19/09 MPO action to add \$5,000 in FY 09 FTA Section 5303 funds.

③ 4/8/10 MPO action to add \$20,000 in PL funds (shifted from other RRPDC staff work tasks).

**F. Schedule**

Ongoing

**5.6 Coordinated Human Services Mobility Plan**

**A. Background**

SAFETEA-LU requires that as a condition of federal assistance covering FTA Section 5310 (Elderly Individuals and Individuals with Disabilities Program) Section 5316 (Job Access and Reverse Commute Program) and Section 5317 (New Freedom Program, funding new ADA type paratransit services), that the region prepare a coordinated public transit human services transportation plan for the coordination of transportation resources provided through multiple federal programs. This plan should enhance transportation access for elderly, disabled, and low-income individuals, minimize duplication of services, and encourage the most cost-effective transportation program possible. Note that SAFETEA-LU requires this coordination plan to be developed by a process that includes representatives of public, private, and nonprofit transportation and human service providers and participation by the public. In the Richmond area, the MPO working in coordination with GRTC, the Tri-Cities Area MPO, VDRPT, and its study consultant, came up with a plan of action covering both MPOs (plan approved at the October 9, 2008 MPO meeting). Such coordination is required due to FTA Section 5316 and Section 5317 funds being allocated on a formula basis, which is based on the census designated Richmond Urbanized Area (which covers most of both MPOs' study areas). GRTC is the urbanized area designated recipient for administering these funds.

One final component to the *Coordinated Human Services Mobility Plan* (CHSMP) is the development of an ongoing structure to serve as a foundation for future coordinated transportation planning efforts. The approved CHSMP states that this structure will be discussed and developed at a regional workshop to be held in the spring/summer of 2009 (i.e., late FY 2009/early FY 2010) and will be included in future iterations of the CHSMP. This final component should also identify those agencies and staffs responsible for conducting periodic updates to the CHSMP. Note that RRPDC staff is planning to conduct an update of the Richmond Region's *Transportation Operators Inventory Report* in FY 2010 and also plans to initiate work in late FY 2010 updating paratransit service information (see UWP task 5.2).

**B. End Product**

1. Amendment to the Coordinated Human Services Mobility (CHSMP) to define the ongoing structure and process for future coordinated transportation planning efforts.
2. Ongoing participation in the GRTC administered FTA Section 5316 and 5317 application review and scoring process.

**C. Work Elements**

Work activities include the following:

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1. Develop the CHSMP ongoing structure and process for future coordinated transportation planning efforts. Development of this element will be conducted similar to the process used to develop the CHSMP. The structure is to be determined through input from a diverse group of stakeholders that represent transportation, aging, disability, social service and other appropriate organizations in the Richmond and Tri-Cities regions. A proposed starting point for this effort will include participants from the CHSMP development workshops and EDAC. While formal responsibilities and organization roles will be determined locally, it is anticipated this structure will:

- Lead updates of the Richmond/Petersburg Metropolitan Planning Area's *Coordinated Human Service Mobility Plan* based on local needs (but at the minimum FTA required cycle).
- Provide input and assist public transit and human service transportation providers in establishing priorities with regard to community transportation services.
- Review and discuss coordination strategies in the region and provide recommendations for possible improvements to help expand mobility options in the region.
- Provide input on applications for funding through the Section 5310, JARC, and New Freedom competitive selection process.

[Note work activities and responsibilities for this work element will need to be reviewed and assigned to appropriate staff agencies; i.e., GRTC, RRPDC, and /or Crater PDC.]

2. Ongoing participation in the GRTC administered FTA Sections 5316 and 5317 project application review and scoring process.

### **D. Agency Participation**

RRPDC, VDRPT, VDOT, GRTC, local governments, human service agencies/ organizations, public and private non-profit paratransit service operators, FTA.

**E. Budget, Staff and Funding**

	<u>PL<sup>①</sup></u>	<u>5303</u>	<u>TOTAL</u>
RRPDC	5,000	14,000	\$19,000

① 4/8/10 MPO action to add \$5,000 in PL funds (shifted from other RRPDC staff work tasks).

**F. Schedule**

1. Developing CHSMP ongoing structure and process for future coordinated transportation planning efforts – July through December, 2009.
2. Project application process – ongoing.

**5.7 Richmond Bus Rapid Transit (BRT) Alternatives Analysis**

**A. Project Description**

The Richmond Bus Rapid Transit (BRT) Alternatives Analysis (AA) will develop a detailed problem statement representing the purpose and need of the project from which project goals and objectives will be derived.

A definition of alternatives will be developed to: 1) meet the study's problem statement goals and objectives for the improvements, 2) isolate the differences between potential solutions to an identified transportation problem, and 3) highlight the tradeoffs inherent in the selection of a locally-preferred alternative (LPA). The "build" and Transportation System Management (TSM) alternatives will be included in the definition of alternatives report and will be directly related to and address the "purpose and need" of the project. An "Evaluation of Alternatives" report will be developed in a manner that will provide the information necessary for local officials and the general public to understand the relative costs and benefits among the alternatives and to ultimately select the LPA. The evaluation framework will focus on the transportation problems identified in the project's purpose and need and will reflect the corresponding project goals and objectives that will fundamentally drive the alternatives analysis. Detailed capital and operating costs will be developed to reflect each alternative, along with a preliminary financial plan. The financial plan will reflect the recent financial history of GRTC, document projected costs and revenues into the future, and demonstrate the reasonableness of key assumptions underlying these projections. The financial plan will aid decision makers in understanding the costs associated with constructing, operating and maintaining each of the alternatives on an annual basis.

The BRT alternatives analysis study area is along the Broad Street Corridor starting at Willow Lawn (in Henrico County) extending east on Broad Street in the City of Richmond to downtown, then proceeding along the Route 5 corridor to the Rocketts Landing development in the City of Richmond and Henrico County.

Extensive public outreach and communications to the public will facilitate VDRPT's and GRTC's ability to gain public involvement and input throughout the AA planning and project development process.

**B. Project Budget**

The current total project budget is \$900,000, which consists of \$720,000 flexible STP (allocated by the state) and local match of \$180,000 (\$90,000 state and \$90,000 GRTC). GRTC and VDRPT anticipate programming additional funds in the FY 10 – FY 15 Six-Year Improvement Program since the Alternatives Analysis, which will be conducted to include the NEPA process, will require additional funding.

## 5.8 Richmond Area Rail Studies and Projects

The following presents a brief informational report on statewide and Richmond Area passenger rail studies and projects.

### Virginia State Rail Plan

The Statewide Rail Plan analyzes the current state of Virginia's rail system and recommends areas for improvement. The Statewide Rail Plan is being developed in accordance with guidelines (49 CFR 266.15) set out by the Federal Railroad Administration for state plans in order to ensure that Virginia's rail plans are consistent with federal funding requirements. This plan updates the 2004 Statewide Rail Plan. The Statewide Rail Plan will also be incorporated into the Commonwealth's long-range multi-modal transportation plan, VTrans 2035.

A draft Rail Plan was made available for public comment in June 2008 and public hearings were held across the state and comments were received through August 2008. The Statewide Rail Resource Allocation Plan was released in December 2008 to assist in programming funds. Changes to the budget required additional fiscal analysis. The Statewide Rail Plan is currently undergoing finalization to incorporate public comment and new financial information.

### Richmond Area Improvement Passenger Rail Study

To support the economic prosperity and quality of life in I-95/I-64 corridor, passenger rail improvements are being conducted to:

- Enhance passenger and freight rail operations with more frequent service, capacity and travel time savings;
- Improve passenger platforms at Richmond's Main Street Station to accommodate long distance Amtrak trains and increase customer access;
- Construct or expand passenger rail stations to provide multimodal connections and encourage transit-oriented development.

The Commonwealth, Federal Railroad Administration, Amtrak, CSX and VRE will coordinate all project-related rail improvements and operations. The project will be managed through a public-private partnership between the Commonwealth, CSX, Amtrak and federal partners.

The Phased project will include:

- a. Capacity/Station Improvements –

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- One new daily round trip train from Richmond to Washington, DC as a demonstration project for three years beginning in 2009, station improvements and the rehabilitation of one train set.
  - Design and construction of capacity improvements from Washington, DC to Richmond and Newport News, including third main track sections and enhancements to increase on-time performance.
  - Environmental documentation to select the route for passenger trains between Richmond and Doswell, as required in the federal planning process.
- b. Regional Trains to Main Street Station –
- Complete capacity improvements and extend three existing regional trains from Staples Mill Station to Main Street Station for a total of five daily trains.
- c. Reroute Long Distance Trains –
- Capacity improvements between Centralia and Main Street Station to allow long distance trains to serve the downtown station.

### **Southeast High Speed Rail – Raleigh to Richmond**

DRPT continues to advance high speed rail in Virginia, and the Commonwealth's contributions toward the Southeast High speed Rail Project will:

- Evaluate a high speed rail connection between Hampton Roads and Richmond's Main Street Station;
- Evaluate high speed passenger rail service on the designated high speed rail corridor from Raleigh, NC through Richmond to Washington, DC;
- Provide passengers with a more cost-effective, competitive alternative to air travel;
- Connect Virginia to the Northeast Corridor, the only active high speed rail corridor operating in North America.

The Commonwealth, Amtrak, CSX and Norfolk Southern will coordinate all project-related rail improvements and operations. The project will be managed through a public private partnership between the Commonwealth, North Carolina, CSX, Norfolk Southern and federal partners.

DRPT is coordinating with the North Carolina Department of Transportation (NCDOT) to complete the Tier II Environmental Impact Statement (EIS) and seek a federal Record of Decision for railway and associated highway design in the corridor from Richmond Main Street Station to Raleigh, NC. The Draft EIS is slated for completion in mid 2010, with public hearings in late 2010. The Final Tier II EIS and Record of Decision are expected to be

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completed by the end of 2011, after which right of way and permit acquisition can begin. Three to five years (2013 – 2018) are expected for construction of the upgraded passenger and freight rail system.

### **Richmond/Hampton Roads Passenger Rail Project**

DRPT is pursuing improved passenger rail service in the major east-west travel corridor between Richmond and the Hampton Roads region of Virginia, to ultimately connect to the Southeast, Northeast and Mid-Atlantic regions as an extension of the Southeast High Speed Rail Corridor. This could include improvements to existing service or the development of new rail service to accommodate frequent passenger trains.

DRPT is currently working with the Federal Railroad Administration (FRA) to finalize the Tier I Draft Environmental Impact Statement and conduct public hearings.

**6.0 INTERMODAL PLANNING**

**6.1 Intermodal Planning**

**A. Background**

In FY 02, the MPO completed work on the Richmond Regional Intermodal Transportation Study. This study examined the potential for an intermodal freight center in the Richmond/Tri-Cities area. It also examined the region's freight transportation network (i.e., highways, rail, airport, and port) and provided recommendations to improve freight movement. While the study concluded that the region did not need an intermodal facility at this time, it recommended the establishment of an Intermodal Advisory Task Force charged with monitoring future demand for such a facility. The study was accepted by the MPO at its February 14, 2002 meeting and a 46-member task force was jointly established with the Tri-Cities Area MPO and approved at the MPO's June 13, 2002 meeting. Due to other work priorities and limited staff resources, the RRPDC did not conduct follow-up work activities for intermodal planning as identified in the study or conduct any task force meetings.

With the passage of SAFETEA-LU and growing concern over the movement of freight through the Richmond region, there is a renewed interest and need to address freight transportation issues and needs. Part of this need is being addressed under work being conducted by VDOT to develop a statewide Multimodal Freight Study. This effort was initiated in October 2006 with a Phase One report being completed in early 2008. The second phase is now underway and is scheduled to be completed in mid 2009 (September/October). This study will address the following:

- Comprehensive look at Virginia's freight issues covering all transportation modes (at statewide, regional, and corridor levels) and types of freight movement (local and through).
- Provide a multimodal perspective on the state's current freight needs and services and future needs.
- Provide for the development of state-of-the-art freight transportation and economic data and analysis tools.
- Identify critical needs and recommendations.

RRPDC staff will provide technical assistance in support of work by the state to develop the statewide Multimodal Freight Study.

## **FY 10 UWP Task 6.1**

VDOT has provided the MPO with 2004 commodity flow data for the Richmond region (provided to VDOT under contract with Global Insight, Inc.). Staff was able to use this data for an analysis of region-wide freight data (examining commodity flow data by load, tonnage and value) in the 2031 LRTP Update. Note this is proprietary data and staff reviewed proposed tables and data included in the LRTP with VDOT before its release and publication.

RRPDC staff will also provide technical and administrative assistance under this UWP task in support of UWP Task 6.2, Intermodal Strategies and Actions for Inter-Regional Freight Movement. Note that RRPDC funds (local only) are programmed on UWP task 6.2 to provide in-king match required for use of VDOT Multimodal Planning Grant funds (being used to fund VDOT on-call consultant for UWP task 6.2).

### **B. End Products**

On-going technical support for regional and state multi-modal transportation planning activities.

### **C. Work Elements**

1. Monitor and report as appropriate on various intermodal planning and programming activities.
2. Provide staff assistance for VDOT statewide intermodal planning activities.
3. Develop and incorporate freight transportation planning activities into LRTP.
4. Participate on VDOT advisory groups involved in statewide multimodal planning (including truck, port, airport, and rail freight movement).
5. Provide administration and technical staff support for work conducted on UWP task 6.2.

### **D. Agency Participation**

RRPDC, VDOT, VDRPT, Crater PDC, CRAC, Port of Richmond, local governments, FHWA, public and private shippers/freight operators.

**E. Budget, Staff and Funding**

	<u>PL<sup>②③</sup></u>	<u>FY 09 CO 5303<sup>①</sup></u>	<u>TOTAL</u>
RRPDC	80,000	10,000	\$90,000

① 11/19/09 MPO action to add \$10,000 in FY 09 FTA section 5303 funds.

② 1/21/10 MPO action to add \$20,000 in FHWA/PL funds.

③ 4/8/10 MPO action to add \$29,000 in PL funds (shifted from other RRPDC staff work tasks).

**F. Schedule**

Ongoing

**6.2 Intermodal Strategies and Actions for Inter-Regional Freight Movement**

**A. Background**

RRPDC staff has been awarded a grant for conducting a study on Intermodal Strategies and Actions for Inter-Regional Freight Movement. This proposal has been funded under VDOT's Multimodal Planning Grant program and provides for use of VDOT's on-call consultants to conduct this study. The lead consultant is Michael Baker Jr., Inc. with most of the work being conducted by Wilber Smith Associates. Work on the study was initiated in October 2008 and it is scheduled for completion in September 2009. Note that the RRPDC provides a ten percent match (in-kind staff time paid with local funds) for this study with the study budget set at \$175,000. Match funds or in-kind services cannot be from either federal or state sources. Note that work on this study is being conducted in coordination with the Tri-Cities Area MPO.

**B. End Products**

A study that identifies strategies and actions to improve freight flows in and through the region's transportation network by increasing freight mobility options and opportunities within the region. The study should identify both short- and long-term actions to be considered for incorporation into the LRTP and for programming into the TIP.

**C. Work Elements**

Study work tasks are as follows:

1. Project Scoping/Kickoff Meeting
2. Data Collection and Analysis
3. Establish Intermodal Advisory Group
4. Conduct Survey of Freight Dependent Industries
5. Transportation System Performance Improvements (process for narrowing/screening a broad range of projects, programs and strategies to accommodate goods movement expansion, and to analyze the effectiveness of a core set of likely alternatives).
6. Land Use and Landside Improvements (providing the MPO with information and tools for improving the coordination of land use planning and freight and goods mobility in the region, and to maximize the overall performance of the transportation system).

7. Freight Logistics Evaluation (critical step in study to define the overall framework for developing industry specific policies and programs to improve goods movement efficiency and to mitigate congestion).
8. Final Report and Executive Summary

**D. Agency Participation**

RRPDC, VDOT, VDOT on-call consultant, VDRPT, Crater PDC, CRAC, Port of Richmond, local governments, FHWA, FTA, public and private shippers/freight operators.

**E. Budget, Staff and Funding**

	<u>FY 09</u> <u>Local<sup>①</sup></u>	<u>FY 10</u> <u>Local<sup>①</sup></u>	<u>MPG</u> <u>Funds<sup>②</sup></u>	<u>TOTAL</u>
RRPDC Staff	7,500	10,000	----	\$ 17,500
VDOT Consultant	<u>----</u>	<u>----</u>	<u>157,500</u>	<u>\$157,500</u>
<b>TOTAL</b>	<u>7,500</u>	<u>10,000</u>	<u>157,500</u>	<u>\$175,000</u>

① RRPDC local funds (in-kind services) to be used as ten percent match. Note that \$17,500 total local in-kind staff time/funds.

② VDOT Multimodal Planning Grant (MPG) funds; total budgeted for study.

**F. Schedule**

Study to be completed in September 2009.

**7.0 AIR QUALITY PLANNING**

**7.1 Air Quality Plan and Program Activities**

**A. Background**

The Clean Air Act Amendments (CAAA) of 1990 present serious air quality improvement challenges to almost all of the nations mid-size to major metropolitan areas. To meet this challenge, the state has pursued a program of reduction measures, which includes various stationary source control measures, stage 2-vapor recovery, clean fuels, and other measures.

In FY 1995, the Metropolitan Richmond Air Quality Committee (MRAQC) was established as the Section 174 Lead Planning Organization (LPO) based on appointments by the Governor's office. Representation on MRAQC includes local elected officials from non-attainment area jurisdictions (i.e. Richmond, Henrico, Chesterfield, Hanover, Charles City, Colonial Heights and Hopewell), from the Richmond and Tri-Cities Area MPOs, the Crater and Richmond regional planning district commissions and agency representatives from VDOT and VDEQ. The role of the LPO is established and defined in general terms in Section 174 of the CAAA. It is also described in the Richmond Area and Tri-Cities Area Memorandum of Understanding (MOU) for Air Quality and Transportation Planning Coordination. Section 174 of the CAAA provides that the LPO shall prepare the state implementation plan (SIP) revisions, and determine those elements of the SIP to be implemented by the state, local governments, regional agencies, and others. In FY 1997, VDEQ staff submitted a request to EPA for designating the area to attainment status. In November 1997 EPA issued notice in the Federal Register noting the Richmond Area to be in attainment status for ozone air quality standards and was designated as a Maintenance Area. Since that time however, EPA has designated the Richmond area (i.e., City of Richmond, Petersburg, Colonial Heights and Hopewell, and counties of Charles City, Chesterfield, Hanover, Henrico, and Prince George) to be a marginal nonattainment area for ozone air quality standards. The Richmond area nonattainment designation went into effect on June 15, 2004 with its status being set at a marginal level shortly after that time (Richmond was a moderate nonattainment area at one time under EPA's one-hour ozone air quality standards).

In FY 05, VDEQ reconstituted the Metropolitan Richmond Air Quality Committee (MRAQC) which is the Lead Planning Organization (LPO) under Section 174 of the CAAA. Appointments of local elected officials and agency members were made in FY 05 and MRAQC held its first meeting in November 2005 (FY 06) initiating work to develop the region's State Implementation Plan (SIP). At its May 10, 2006 meeting, action was taken to approve proposed control strategies (as part of the extension of the Richmond nonattainment area into the newly added areas, which are the City of

Petersburg, Prince George County, and the remaining area of Charles City County; previously only a small part of Charles City County was in the nonattainment/maintenance area). MRAQC also took action to approve contingency measures (required as part of the contingency plan included in VDEQ's request for redesignation of the Richmond nonattainment area to attainment/maintenance status).

In March 2008, RRPDC staff received notice of action by EPA to lower the 8-hour ozone standard to 0.075 parts per million (it was previously set at 0.08 ppm). As a result of this change and based on the past three years of data exceeding these new standards, the Richmond and Tri-Cities Maintenance Area jurisdictions (i.e., Richmond, Henrico, Hanover, Charles City, Petersburg, Colonial Heights, Hopewell, and Prince George) will be redesignated to nonattainment status. These designations are expected in 2010. Staff from VDEQ has advised RRPDC staff and the MPO Technical Advisory Committee that VDEQ intends to implement four of the six contingency measures from the SIP in order to avoid revising the SIP. Such an effort will likely be initiated in the near future (two to three years).

This work task also provides for RRPDC and VDOT staff work activities for conducting air quality conformity analysis in support of the TIP and LRTP. VDOT has made air quality conformity analysis a VDOT staff work activity (previously, this work was conducted by consultants under contract to VDOT). RRPDC staff provides staff support for TIP, LRTP, and TIP/LRTP amendments (when appropriate) review and coordination.

Staff work activities includes identification of projects, project descriptions, submission of socioeconomic data and forecasts, coordinate/conduct project reviews with local staff and other administrative and coordination activities.

**B. End Products**

Administrative support for MPO activities involving development of the non-attainment area state implementation plan and air quality conformity analysis.

**C. Work Elements**

1. Monitor air quality data for the Richmond area, and review EPA and Virginia Department of Air Pollution Control reports, guidelines, regulations, etc.
2. Limited administrative support for MPO participation in developing the nonattainment area implementation plan. (VDEQ serves as lead staff to the MRAQC).
3. Review, comment, and conduct other activities necessary for the nonattainment area planning process.

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4. Review and comment on the area's emissions inventory, especially information relating to mobile sources and transportation control measures.
5. Computer modeling and other transportation planning activities for development of VMT data required for maintenance plan/nonattainment area plan implementation [VDOT].
6. Conduct air quality conformity analysis activities in support of the TIP and LRTP [RRPDC and VDOT].

**D. Agency Participation**

RRPDC, VDOT, VDRPT, VDEQ, MRAQC, GRTC, RideFinders, local governments, FHWA, EPA, FTA, and Tri-Cities MPO.

**E. Budget, Staff, and Funding**

	<u>PL<sup>①</sup></u>	<u>5303</u>	<u>TOTAL</u>
RRPDC	30,000	5,000	\$35,000

<sup>①</sup> 4/8/10 MPO action to add \$14,000 in PL funds (shifted from other RRPDC staff work tasks).

**F. Schedule**

Ongoing activity

**8.0 BICYCLE AND PEDESTRIAN PLANNING**

**8.1 Bicycle and Pedestrian Planning**

**A. Background**

This task provides RRPDC staff time in support of work by area groups, organizations and local governments to advance bicycle and pedestrian studies, programs and projects in the Richmond Region.

In mid-2008 the Capital Region Greenway Group, an ad hoc collaboration between the City of Richmond Department of Parks and Recreation; the City of Richmond Department of Community Development; various departments and citizens of Henrico, Chesterfield, Goochland, New Kent and Hanover Counties; the Virginia Department of Conservation and Recreation; the Capital Trail Foundation; the Richmond Area Bicycling Association; Bike-Walk Virginia and a Richmond City Council representative approached the MPO for assistance. The requested assistance would be in coordinating and advancing bicycle and pedestrian efforts supporting the 2004 Regional Bicycle and Pedestrian Plan. The plan was a collaboration between the MPO and VDOT to provide a regional network of bicycle and pedestrian amenities, and was adopted by the MPO as a study.

Efforts to improve bicycle and pedestrian access, whether on or off-road are in keeping with the Virginia Department of Conservation and Recreation 2007 Outdoors Plan, the 1993 Regional Greenways Plan, and various efforts already underway in the Region. The Virginia Capital Trail is scheduled to be complete in 2010 and has received wide public support; the East Coast Greenway, a continuous path from Florida to Maine, requires a regional thoroughfare through this Region and needs a local effort to support it.

**B. End Products**

1. An assessment of the 2004 Regional Bicycle and Pedestrian Plan identifying opportunities for implementation of plan recommendations, projects and programs. The goal is establishing a continuing and cooperative process by which the MPO works with area local governments and interested groups and organizations to develop and improve bicycle and pedestrian access, safety and mobility.
2. Development of a regional database of planned, signed and designated bicycle routes and facilities.

**C. Work Elements**

It should be noted that federal legislation requires that MPO activities provide for all means of transportation, “including accessible pedestrian walkways and bicycle transportation facilities”. This task further satisfies the letter of

## **FY 10 UWP Task 8.1**

federal regulation by ensuring that there are a sufficient number of projects which minimize transportation-related fuel consumption and air pollution, and which protect and enhance the environment and improve quality of life (23 CFR sec 450.000 (a) and 450.306 (a)(5)). It should also be noted that due to competing work program activities, the 2004 Regional Bicycle and Pedestrian Plan has received limited attention.

Work activities include the following:

1. Review the 2004 Regional Bicycle and Pedestrian Plan and document major/significant accomplishments since approval of this plan by the MPO in July 2004.
2. Assess the 2004 Regional Bicycle and Pedestrian Plan and identify opportunities for implementation of plan recommendations, projects and programs.
3. Provide planning assistance to area local governments, and attend meetings of and consult with the Capital Region Greenway Group (as established by the City of Richmond) and other groups and organizations (as approved by the RRPDC Executive Director).
4. Create a regional database and map of planned, signed and designated bike routes and facilities.
5. Document as part of a regional database/inventory, low-cost improvements made to accommodate bicyclists and pedestrians.
6. Serve as a regional forum for planning and coordination of bicycle and pedestrian facilities and programs through current MPO committees and processes.

### **D. Agency Participation**

RRPDC, VDOT, FHWA, National Park Service, local governments and interested parties (e.g., Richmond Area Bicycling Association, Partnership for Smarter Growth, etc.)

**E. Budget, Staffing and Funding**

	<u>PL<sup>②③</sup></u>	<u>5303</u>	FY 09 CO <u>5303<sup>①</sup></u>	<u>TOTAL</u>
RRPDC	60,000	16,000	20,000	\$96,000

① 11/19/09 MPO action to add \$20,000 in FY 09 FTA Section 5303 funds.

② 1/21/10 MPO action to add \$20,000 in /PL funds.

③ 4/8/10 MPO action to add \$16,000 in PL funds (shifted from other RRPDC staff work tasks).

**F. Schedule**

Ongoing activity.

**AGENCY BUDGET SUMMARY SHEET  
FHWA PL/SPR; FTA SEC 5303; VDOT MULTIMODAL PLANNING GRANT  
FY 2010 UWP - RICHMOND AREA MPO**

Task No/ Abbrev	RRPDC					VDOT SPR (5)	OTHER	TOTAL						GRAND TOTAL	
	PL	5303	CO 5303 (6)	OMF (1)	CO 5303 (7)			PL	SPR (5)	5303	CO 5303 (6)	OMF (1)	CO 5303 (7)		OTHER
1.1 MPO Maint	409,670	15,199	22,298	-	4,100	201,000	-	409,670	201,000	15,199	22,298	-	4,100	-	652,267
1.2 Citi Partic	50,000	30,000	15,000	-	6,005	-	-	50,000	-	30,000	15,000	-	6,005	-	101,005
1.3 UWP	60,000	-	-	-	-	-	-	60,000	-	-	-	-	-	-	60,000
2.1 Data	180,000	22,000	20,000	-	-	-	-	180,000	-	22,000	20,000	-	-	-	222,000
2.2 LRTP	20,000	10,000	5,000	-	-	-	-	20,000	-	10,000	5,000	-	-	-	35,000
2.3 RTDM	20,000	7,000	10,000	-	-	-	-	20,000	-	7,000	10,000	-	-	-	37,000
2.5 TD/GIS	80,000	20,000	-	-	-	-	-	80,000	-	20,000	-	-	-	-	100,000
2.8 Rt. 5 Study	30,000	20,000	10,000	-	-	400,000	-	30,000	400,000	20,000	10,000	-	-	-	460,000
2.9 City SMTP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.1 CMS	25,000	20,000	5,000	-	-	-	-	25,000	-	20,000	5,000	-	-	-	50,000
3.2 Access Mgt	10,000	-	-	-	-	-	-	10,000	-	-	-	-	-	-	10,000
3.3 ITS	20,000	10,000	5,000	-	-	-	-	20,000	-	10,000	5,000	-	-	-	35,000
4.1 TIP	200,000	-	20,000	-	-	-	-	200,000	-	-	20,000	-	-	-	220,000
5.2 E&D TNS	25,000	40,000	25,986	-	-	-	-	25,000	-	40,000	25,986	-	-	-	90,986
5.3 Dwt .Cir (2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.5 RPTS	20,000	25,000	10,000	-	-	-	-	20,000	-	25,000	10,000	-	-	-	55,000
5.6 CHSMP	5,000	14,000	-	-	-	-	-	5,000	-	14,000	-	-	-	-	19,000
5.7 RBRT (2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.8 Rail (3)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.1 IM Plg.	80,000	-	10,000	-	-	-	-	80,000	-	-	10,000	-	-	-	90,000
6.2 IMS/A	-	-	-	10,000	-	-	-	-	-	-	-	10,000	-	-	10,000
6.2 IMS/A (4)	-	-	-	-	-	-	157,500	-	-	-	-	-	-	157,500	157,500
7.1 Air Q. Plg.	30,000	5,000	-	-	-	-	-	30,000	-	5,000	-	-	-	-	35,000
8.1 Bike/Ped Plg.	60,000	16,000	20,000	-	-	-	-	60,000	-	16,000	20,000	-	-	-	96,000
<b>TOTAL (\$)</b>	<b>1,324,670</b>	<b>254,199</b>	<b>178,284</b>	<b>10,000</b>	<b>10,105</b>	<b>601,000</b>	<b>157,500</b>	<b>1,324,670</b>	<b>601,000</b>	<b>254,199</b>	<b>178,284</b>	<b>10,000</b>	<b>10,105</b>	<b>157,500</b>	<b>2,535,758</b>

- NOTES:
- (1) RRPDC Over Match Funds (OMF) or in-kind staff match (100 percent RRPDC local funds).
  - (2) Work conducted by GRTC staff and/or consultant (UWP information item).
  - (3) Work conducted by VDRPT staff and/or consultants (UWP information item).
  - (4) Work conducted by VDOT on-call consultant (State Multimodal Planning Grant funds)
  - (5) Estimated budget (based on FY 2009 budget); actual budget to be programmed when available (if different from budget shown)
  - (6) FY 09 FTA Section 5303 carryover funds.
  - (7) FY 08 FTA Section 5303 carryover funds.

**FUNDING SOURCES SUMMARY SHEET**  
**FHWA PL/SPR; FTA SEC 5303; VDOT MULTIMODAL PLANNING GRANT**  
**FY 2010 UWP - RICHMOND AREA MPO**

Task No./ Abbrev.	PL		SPR (5)		5303		FY 09 CO 5303(6)		FY 08 CO 5303 (7)		RRPDC	OTHER		TOTAL		GRAND
	Federal	State/Local	Federal	State	Federal	State/Local	Federal	State/Local	Federal	State/Local	OMF (1)	Federal	State/Local	Federal	State/Local	TOTAL
1.1 MPO Maint	327,736	81,934	160,800	40,200	12,159	3,040	17,838	4,460	3,280	820	-	-	-	521,814	130,453	652,267
1.2 Citi Partic	40,000	10,000	-	-	24,000	6,000	12,000	3,000	4,804	1,201	-	-	-	80,804	20,201	101,005
1.3 UWP	48,000	12,000	-	-	-	-	-	-	-	-	-	-	-	48,000	12,000	60,000
2.1 Data	144,000	36,000	-	-	17,600	4,400	16,000	4,000	-	-	-	-	-	177,600	44,400	222,000
2.2 LRTP	16,000	4,000	-	-	8,000	2,000	4,000	1,000	-	-	-	-	-	28,000	7,000	35,000
2.3 RTDM	16,000	4,000	-	-	5,600	1,400	8,000	2,000	-	-	-	-	-	29,600	7,400	37,000
2.5 TD/GIS	64,000	16,000	-	-	16,000	4,000	-	-	-	-	-	-	-	80,000	20,000	100,000
2.8 Rt. 5 Study	24,000	6,000	320,000	80,000	16,000	4,000	8,000	2,000	-	-	-	-	-	368,000	92,000	460,000
2.9 City SMTP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.1 CMS	20,000	5,000	-	-	16,000	4,000	4,000	1,000	-	-	-	-	-	40,000	10,000	50,000
3.2 Access Mgt	8,000	2,000	-	-	-	-	-	-	-	-	-	-	-	8,000	2,000	10,000
3.3 ITS	16,000	4,000	-	-	8,000	2,000	4,000	1,000	-	-	-	-	-	28,000	7,000	35,000
4.1 TIP	160,000	40,000	-	-	-	-	16,000	4,000	-	-	-	-	-	176,000	44,000	220,000
5.2 E&D TNS	20,000	5,000	-	-	32,000	8,000	20,789	5,197	-	-	-	-	-	72,789	18,197	90,986
5.3 Dwt .Cir (2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.5 RPTS	16,000	4,000	-	-	20,000	5,000	8,000	2,000	-	-	-	-	-	44,000	11,000	55,000
5.6 CHSMP	4,000	1,000	-	-	11,200	2,800	-	-	-	-	-	-	-	15,200	3,800	19,000
5.7 RBRT (2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.8 Rail (3)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.1 IM Plg.	64,000	16,000	-	-	-	-	8,000	2,000	-	-	-	-	-	72,000	18,000	90,000
6.2 IMS/A	-	-	-	-	-	-	-	-	-	-	10,000	-	-	-	10,000	10,000
6.2 IMS/A (4)	-	-	-	-	-	-	-	-	-	-	-	-	157,500	-	157,500	157,500
7.1 Air Q. Plg.	24,000	6,000	-	-	4,000	1,000	-	-	-	-	-	-	-	28,000	7,000	35,000
8.1 Bike/Ped Plg.	48,000	12,000	-	-	12,800	3,200	16,000	4,000	-	-	-	-	-	76,800	19,200	96,000
<b>TOTAL (\$)</b>	<b>1,059,736</b>	<b>264,934</b>	<b>480,800</b>	<b>120,200</b>	<b>203,359</b>	<b>50,840</b>	<b>142,627</b>	<b>35,657</b>	<b>8,084</b>	<b>2,021</b>	<b>10,000</b>	<b>-</b>	<b>157,500</b>	<b>1,894,606</b>	<b>641,152</b>	<b>2,535,758</b>

- NOTES:
- (1) RRPDC Over Match Funds (OMF) (100 percent RRPDC local funds).
  - (2) Work conducted by GRTC staff and/or consultant (UWP information item).
  - (3) Work conducted by VDRPT staff and/or consultants (UWP information item).
  - (4) Work conducted by VDOT on-call consultant (tentatively budgeted at \$157,500 in State Multimodal Planning Grant funds).
  - (5) Estimated budget (based on FY 2009 budget); actual budget to be programmed when available (if different from budget shown)
  - (6) FY 09 FTA Section 5303 carryover funds.
  - (7) FY 08 FTA Section 5303 carryover funds.