

**FISCAL YEAR 2011**  
**JULY 1, 2010 – JUNE 30, 2011**

**UNIFIED WORK PROGRAM**

**FOR THE**

**RICHMOND AREA METROPOLITAN**

**PLANNING ORGANIZATION**

Approved as a Final Report by the Richmond Area Metropolitan Planning Organization, April 8, 2010.

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**

- 10/14/10: UWP amended to program final FTA Section 5303 funds allocation (\$76.00 added to UWP task 5.2) and to revise UWP task 5.4.
- 1/21/11: UWP amended (TAC action on behalf of MPO) to shift PL funds among various RRPDC staff work tasks (1.2, 1.3, 2.1, 2.2, 2.3, 2.5, 2.8, 3.2, 4.1, 5.5, 7.1, and 8.1).
- 2/17/11: UWP amended (TAC action on behalf of MPO) to program \$74,614 in DRPT Technical Assistance Grant Funds, and to revise the project description, work elements and schedule for UWP task 5.4.

## **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 improve public participation through extensive collaboration with area groups and organizations in addressing regional issues, which is creating a higher level of awareness of the RRPDC including its support for the MPO. Staff has also been successful in creating interest by the news media in RRPDC and MPO activities, which has resulted in more news coverage. Work also continues to improve the RRPDC web site including content and format.
2. Task 2.1, Socioeconomic Data Development – Work to complete new 2008 base year socioeconomic data and new 2035 forecasts is expected in early FY 2011. Staff has been able to obtain address-level auto registration data from DMV, which staff has geocoded to the Transportation Analysis Zone (TAZ) level. This improved data, along with other work being completed by VDOT for updating the regional travel demand model, should enable the MPO to conduct effective modeling and analysis of the region's public transit network.
3. Task 2.3, Regional Travel Demand Model – Responsibility for developing and maintaining the regional travel demand model (RTDM) has been transitioned from VDOT to the MPO. The RRPDC has budgeted MPO planning funds to support a new planning position to lead this work. VDOT will continue to

provide technical assistance and training, and is currently working to improve the effectiveness of the current model.

4. Task 3.1, Congestion Management Process (CMP) – 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 CMP 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 2010, 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 \$5.8 million) identified and reallocated to active projects. VDOT is in the process of establishing ongoing institutional measures for financial close-out of RSTP and CMAQ projects. A pilot program for the VDOT Richmond District is set to begin in late FY 2010 to test this new process.
6. Task 6.1, Intermodal Planning – Work on the MPO’s Intermodal Strategies and Action Study was completed in late FY 2010. The MPO will review the study recommendations with possible follow-up actions for incorporating proposed projects in the current or upcoming Long-Range Transportation Plan, and possible programming of projects in the Transportation Improvement Program. Staff also anticipates that an annual freight forum for freight users and local, regional and state government organizations will be established to provide continuing input from the freight users community.

**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 11 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. In FY 11, RRPDC and Crater PDC staffs will begin to have responsibility for maintaining the regional travel demand model for use and applications in respective MPO areas. VDOT, the RRPDC and Crater PDC staffs have established an informal users group to coordinate technical work activities and to address any modeling issues that may arise.
- 3.3 Intelligent Transportation Systems (ITS) – VDOT has developed the *Virginia Central Region ITS Architecture Implementation Plan* and the *Virginia Central Region ITS Architecture Maintenance Plan*. Both plans cover all of the Richmond

Area MPO and Tri-Cities Area MPO (plus other rural areas). Staff is proposing the establishment of a regional ITS technical work group which will cover the Richmond area. Coordination with ITS related activities with the Tri-Cities MPO area should be through VDOT as ITS work activities covered for the VDOT designated Central Region now includes a much broader region than the area covered in the July 2004 *Richmond Regional ITS Architecture Report and Deployment Plan*.

- 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 – The MPO continues to involve the Tri-Cities Area MPO in various freight-related planning activities. The Annual Freight Forum will include invitations to Tri-Cities Area MPO freight users, local government and Crater PDC staffs.
- 7.1 Air Quality Plan and Program Activities – 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.

<b>TCM</b>	Transportation Control Measures (for Air Quality Control); eligible for CMAQ funding.
<b>TDM</b>	Transportation Demand Management; various transportation control strategies and measures used in managing highway demand.
<b>TIP</b>	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**

<b>CTAC</b>	Citizens Transportation Advisory Committee
<b>EDAC</b>	Elderly and Disabled Advisory Committee
<b>TAC</b>	Technical Advisory Committee

**FEDERAL STATE AND REGIONAL AGENCIES**

<b>CRAC</b>	Capital Region Airport Commission
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<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 \$131,200 (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 11 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.

### **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.

## **FY 11 UWP Task 1.1**

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. Attend Title VI training courses offered by VDOT.
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.
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].

## FY 11 UWP Task 1.1

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.
23. Sustainable Transportation Initiative of Richmond (STIR) – STIR is working to develop projects and programs in the City of Richmond and surrounding counties that provide for the integration of alternative/environmentally friendly vehicles and transportation systems. Participation on STIR includes GRTC Transit System, VCU, Greater Richmond Partnership, Dominion Resources, RRPDC, Richmond Times-Dispatch, Southeastern Institute of Research, Inc., and others. At this point, RRPDC staff participation on STIR is focused on developing proposed projects and activities to encourage regional dialogue and discussion. Periodic reports will be provided to the MPO.
24. Virginia Association of MPOs (VAMPO) – The MPO took action at its November 12, 2009 meeting to express its interest in the establishment of VAMPO and reserved its endorsement while the following conditions are being addressed:
  - that the mission and procedures of VAMPO are defined in bylaws developed by Virginia's MPO's, and carried out in a way that is supportive of the MPO's planning and programming responsibilities and does not act as a substitute for regional transportation decision-making;
  - that the cost for VAMPO membership is specifically defined and kept to a minimum with the Richmond Area MPO allowed to give full consideration of proposed staffing and other organizational costs;

Staff will work with other MPO staffs from across the state to develop a proposed VAMPO organization with the MPO's conditions for this organization in mind, and will present the proposed organization's structure, bylaws, and other appropriate documents to the MPO for its review and action.

25. Title VI Compliance – Conduct review of the LRTP, TIP and UWP documents to ensure that these documents demonstrate consistency with federal Title VI and related requirements and principles.

**FY 11 UWP Task 1.1**

**D. Agency Participation**

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

**E. Budget, Staff and Funding**

	<u>PL</u>	<u>5303<sup>②</sup></u>	<u>SPR<sup>①</sup></u>	<u>FY 10 CO 5303</u>	<u>TOTAL</u>
RRPDC	487,056	30,199	-	-	517,255
RRPDC Conting.	-	-	-	-	-
VDOT	-	-	<u>136,000</u>	-	<u>136,000</u>
<b>TOTAL</b>	<u>\$487,056</u>	<u>\$30,199</u>	<u>\$136,000</u>	-	<u>\$653,255</u>

① Provides for VDOT Richmond District support on all MPO work tasks

② 10/14/10 MPO action to shift \$61,000 in FY 11 Section 5303 funds to UWP task 5.4, GRTC consultant.

**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 Proficiency (LEP) populations. 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 – Identify measures to evaluate the effectiveness of public involvement and outreach efforts, including efforts to ensure that public outreach efforts are addressing the diverse needs of the community.
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 Citizen 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 (fact sheets should be useful in explaining the transportation planning process and its products).
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.
13. Public Participation Plan (PPP) – Update PPP to identify specific practices used to identify the needs of the Limited English Proficiency (LEP) population and engage this population in the transportation planning process.

**D. Agency Participation**

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

**E. Budget, Staff and Funding**

	<u>PL<sup>①</sup></u>	<u>5303</u>	<u>FY 10 CO</u> <u>5303</u>	<u>TOTAL</u>
RRPDC	120,000	----	----	\$120,000

① 1/21/11 TAC action on behalf of MPO to reduce PL funds by \$5,000 (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 2012, from July 1, 2011 to June 30, 2012). 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 11 UWP.
2. FY 12 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 1/21/11 TAC action on behalf of MPO to reduce PL funds by \$5,000 (shifted to other RRPDC staff work tasks).

**F. Schedule**

On-going activity for adopted UWP/RRPDC Work Programs

October 2010 to May 2011 for FY 12 RRPDC Work Program.

January 2011 to April 2011 for FY 12 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). The base year data for the region’s air quality model must be updated by December 2010 to comply with federal requirements; the model must be validated against conditions that were current no

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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 is working to update elements of 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.

In FY 2010, RRPDC staff expects to complete and present 2008 base year data to the MPO for its initial review and approval, and should have most work on the 2035 forecasts completed in early FY 2011. The final draft 2008/2035 Socioeconomic Data Report document should be completed and presented to the MPO in early FY 2011 (i.e., September or October).

Work activities to maintain and update census tract level data showing minority, ethnic group, limited English proficiency, and low income population groups is used 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) conducted the National Household Travel Survey (NHTS). Access for VDOT review of the data started in early 2010. 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 has been conducted in Virginia with 14,584 survey samples (note that 2,225 samples were conducted for the enhanced survey effort in the Richmond/Tri-Cities Region). In addition, VDOT has conducted a supplemental university survey (conducted at four large state universities) in order to obtain better travel data for university student populations. VDOT expects that data from both the enhanced and university students surveys will be fully processed and geo-coded by spring of 2010, with data available for analysis by the summer of 2010. 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. 2008/2035 Socioeconomic Data Report document.
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 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. If TAZs are modified, the

MPO will need to address how the new TAZ geography functions with the 2008 base year data and 2035 forecasts that reflect previous TAZ geography.)

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.

**C. Work Elements**

1. 2008/2035 Socioeconomic Data Report – Staff anticipates that 2008 base year data will be completed in FY 2010 and most work on the 2035 forecasts should also be completed. Staff’s tentative plan for the draft report includes a review and analysis of population and employment data and forecasts in the report document, with data as an Appendix that provides detailed TAZ level 2008 data and 2035 forecasts, TAZ maps (by jurisdiction) and documentation of the methodology used to develop all demographic elements (e.g., population, households, autos, employment, etc.)
2. TAZ Geography Analysis – Work in conjunction with VDOT and area local governments in the review of existing TAZ boundaries (this may include realigning TAZ boundaries, establishing smaller TAZs, or aggregating TAZs for certain travel demand model analysis requirements and other study activities) based on the 2010 census.
3. Maintain ACS and CTPP data and staff expertise and capabilities in applying these data to plan and study activities.
4. Staff involvement in review activities for the year 2010 census.
5. Maintain and update as needed, geographical data on limited English proficiency, minority and low-income population groups (environmental justice data required for analysis of transportation investments in MPO study area).
6. Work activities to develop ethnic and limited English proficiency, minority and low-income population 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>②</sup></u>	<u>5303</u>	<u>FY 10 CO 5303<sup>①</sup></u>	<u>TOTAL</u>
RRPDC	78,000	14,000	8,261	\$100,261

① 10/14/10 MPO action to add \$4,261 in FY 10 Section 5303 carryover funds.

② 1/21/11 TAC action on behalf of MPO to increase PL funds by \$10,000 (shifted from other RRPDC staff work tasks).

**F. Schedule**

1. July to October 2010 – Complete 2008/2035 Socioeconomic Data Report.
2. Late FY 11 – Conduct TAZ geography analysis.
3. Ongoing – Other work activities.

**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 (conducted in FY 10) was 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). This report was presented to the MPOs Technical Advisory Committee (TAC) at the November 19, 2009 meeting. Based on VDOT's new policy (announced April 8, 2009) designating MPOs as the lead staff for developing and maintaining the regional travel demand model, the FY 11 UWP will now reflect this policy (see UWP task 2.3).

In FY 10, staff initiated the review process for establishing the MPO study area boundary. New Kent County's TAC member requested MPO consideration for expanding the boundary in New Kent County and staff is currently working with New Kent County staff and RRPDC policy committees to review several options for this expansion request including an option to expand the study area boundary to include all of Planning District (PD) 15 (i.e., the RRPDC member jurisdictions area), except for that part of PD 15 (in Chesterfield County) currently covered by the Tri-Cities Area MPO. It should be noted that socioeconomic data and forecasts now cover the entire PD 15; VDOT requested this coverage based on requirements for the regional travel demand model. As a result, establishing a new MPO study area boundary will require little to no additional work in developing the 2035 LRTP at this early stage.

In FY 11, staff's efforts will be focused on initiating work for the 2035 LRTP Update. Work on the 2035 LRTP needs to be completed by August 2012 (four years after MPO action to adopt the 2031 LRTP). The initial scope of work will address the 2031 LRTP Advisory Committee "Recommendations for Conducting the Next LRTP Update" (approved at the November 13, 2008 MPO meeting)

It also should be noted that SAFETEA-LU expired in September 2009, with several extensions already approved by Congress (the current extension is through December 31, 2010). Congressional reauthorization of a new federal transportation act is anticipated at some point in late FY 2011 or early FY 2012. 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).
4. MPO approved scope of work for the 2035 LRTP Update.

**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; 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). In late FY 2010, staff will add a section to the 2031 LRTP Update that documents LRTP amendments and administrative modifications.
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. Develop scope of work and schedule for the 2035 LRTP Update and submit to CTAC, EDAC and TAC for review and recommendation (work scope to address the 2031 LRTP Advisory Committee “Recommendation for Conducting the Next LRTP Update” as approved at the November 13, 2008 MPO meeting). Work on the LRTP Update should proceed based on the MPO approved scope of work.
5. Functional Classification – Review requests for functional classification and reclassification and submit for MPO review and action.
6. Review highway construction plans for conformance with the adopted Transportation Plan [VDOT and RRPDC].
7. 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	68,000	10,000	5,000	\$83,000

<sup>①</sup> 1/21/11 TAC action on behalf of MPO to increase PL funds by \$10,000 (shifted from other RRPDC staff work tasks).

**F. Schedule**

1. Ongoing maintenance of LRTP, amendments, public outreach coordination, plan reviews, etc to occur throughout FY11.
2. July 2010 – October 2010 – Initial citizen input for LRTP (conduct as part of annual public review meetings).
3. September 2010 to February 2011 – Development of draft scope of work and submit for MPO review and action.
4. Other work activities – ongoing.

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

**A. Background**

On April 8, 2009, VDOT announced a new policy designating MPOs as now being responsible to develop and maintain their region's travel demand model. VDOT indicated that it would provide technical assistance and training and assist MPO staff's in transitioning to this new responsibility. VDOT would also provide technical assistance for model development. Staff presented a report at the November 19, 2009 TAC meeting on how staff proposes to transition the MPO to this new responsibility. Staff's report to TAC also covered how the RRPDC is providing temporary support for the regional travel demand model (in FY 10, staff conducted an amendment to the LRTP which required running the travel demand model; VDOT provided extensive assistance and oversight for this effort); staff's visits to the Hampton Roads and Fredericksburg MPOs to report on how these MPO's staff their regional travel demand model (RTDM); potential travel demand model applications, and RRPDC staffing proposal for the RTDM.

It should be noted that the RTDM, as maintained by VDOT, has covered both the Richmond and Tri-Cities MPOs. Staff will need to work with VDOT and Crater PDC staffs to address how the RTDM will function in two MPOs while also functioning to provide input for the air quality conformity analysis model that covers both MPOs.

Staff is requesting action by the RRPDC board to add a new position that would serve as the staff RTDM planner. Staff has budgeted for this position to start on July 1, 2010 and staff will work to have this position filled in early FY 2011.

**B. End Products**

1. Development and maintenance of the Richmond Regional Travel Demand Model (RTDM).
2. Report on RTDM capabilities and applications.

**C. Work Efforts**

1. RTDM Initial Set-up – Work with VDOT to set up and establish the RTDM for the Richmond Region, and establish policies and procedures for coordination with the Tri-Cities Area MPO and VDOT (for air quality conformity analysis input).
2. RTDM Capabilities and Applications – Based on the 2035 LRTP scope of work, schedule, available socioeconomic data/forecasts, and budget, assess RTDM capabilities for conducting transportation/land-use scenarios,

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alternatives analysis, congestion analysis, and alternative modes (public transportation and transportation demand management measures).

3. RTDM Network Analysis – RRPDC staff will work in conjunction with VDOT, area local governments and GRTC staff to review and analyze RTDM highway and transit networks.
4. RTDM Users Group – Staff participation with VDOT, Crater PDC, and other staffs as may be appropriate in reviewing, discussing and coordinating technical work on the RTDM.

**D. Agency Participation**

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

**E. Budget, Staff and Funding**

	<u>PL</u> <sup>②</sup>	<u>5303</u> <sup>①</sup>	<u>FY 10 CO</u> <u>5303</u>	<u>TOTAL</u>
RRPDC	67,000	16,000	5,000	\$88,000

① 10/14/10 MPO action to shift \$4,000 in FY 11 Section 5303 funds to UWP task 5.4 for GRTC consultant.

② 1/21/11 TAC action on behalf of MPO to reduce PL funds by \$20,000 (shifted to other RRPDC staff work tasks).

**F. Schedule**

Ongoing work activity; activities to be scheduled when RTDM staff position is filled.

**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.

Note that work in developing and maintaining the RRPDC GIS file structure is coordinated through a staff committee that works with GIS users in each agency division to review file structure operating procedures, administrative procedures for reporting file structure issues, and file-building and expansion (for introduction and filing of new data sets).

- 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, CMP, 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	100,000	–	\$100,000

<sup>①</sup> 1/21/11 TAC action on behalf of MPO to reduce PL funds by \$5,000 (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, VDRPT, 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.”

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>②</sup></u>	<u>5303</u>	FY 10 CO <u>5303</u>	<u>SPR</u>	<u>TOTAL</u>
RRPDC	29,000	–	10,000	–	39,000
RRPDC Consultant	<u>–</u>	<u>–</u>	<u>–</u>	<u>400,000<sup>①</sup></u>	<u>400,000</u>
TOTAL	29,000	–	10,000	400,000	\$439,000

<sup>①</sup> \$400,000 in FHWA/SPR funds transferred from FY 10 UWP.

<sup>②</sup> 1/21/11 TAC action on behalf of MPO to reduce PL funds by \$5,000 (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
- Summary of traffic volumes, accident/safety data, roadway inventory/physical features, travel demand management programs, land use patterns

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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, educates the participants and provides an opportunity for meaningful

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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)
- Review concepts of transit oriented development, complete streets recommendations/guidelines, traditional walkable city recommendations,

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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
- 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 Process (CMP) Update**

**A. Background**

The Congestion Management Process (CMP) 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 CMP is conducted as an element of the LRTP update. In addition, 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 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 were previously due by March 12, 2010. However, the new federal administration is considering a new lower standard (in the range of 0.070 to 0.060 ppm) and as a result, redesignation of the Richmond area from maintenance to nonattainment status is now scheduled to occur in March 2011. The new lower standard is expected to be set by August 31, 2010.

As a result of these delays in redesignating the Richmond maintenance area back to nonattainment status, 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).

Also, note that SAFETEA-LU has expanded the scope of the CMP to include additional considerations for management and operations (i.e., there must be a

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“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 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 CMP and other study work efforts. VDOT is currently in transition between data reporting systems and staff anticipates this data should be available in early FY 11.

### **B. End Products**

1. CMP Scope of work (to be conducted in conjunction with the 2035 LRTP work scope).
2. GPS travel time runs, vehicle occupancy counts, and development of other data for the next CMP and LRTP update.

### **C. Work Elements**

1. CMP Work Scope – Staff is currently reviewing CMP requirements and is developing an approach to address these requirements. The primary components for the CMP include the following:
  - System definition and data collection
  - Congestion definition and identification

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- Strategy evaluation
  - System monitoring and evaluation
2. Travel Time Runs – Staff is currently reviewing a proposal from a private firm on making travel time data available for the region (covers CMP network and other roads). This would replace travel time runs conducted by RRPDC staff (primarily interns). Travel time runs will need to cover all of the region’s Interstates, toll roads, expressways, and other major travel corridors (similar to runs conducted for the 2031 LRTP/CMS).
  3. Accident Data – Assemble and review accident location data available from VDOT for the region’s major roadways (roads/corridors included in the CMP 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).
  4. Texas Transportation Institute (TTI) Congestion Reports – Continue to receive, review, and analyze TTI congestion data for the Richmond Urbanized Area.
  5. Consideration for Change in Area’s Air Quality Status – Monitor developments and changes underway and anticipated as a result of the change in air quality standards and data readings (new standards may be set somewhere between 0.060 to 0.070 ppm; and latest three-year readings for ozone data based on these new standards) resulting in the area being redesignated to nonattainment status (currently is at maintenance status). Nonattainment status designation will require the MPO to address additional CMP requirements (see section 450.320 (c) of MPO planning regulations). These additional requirements will apply with the designation to nonattainment status, which is anticipated to occur in March 2011.

**D. Agency Participation**

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

**E. Budget, Staff and Funding**

	<u>PL</u>	<u>5303</u>	<u>FY 10 CO</u> <u>5303</u>	<u>TOTAL</u>
RRPDC	45,000	10,000	5,000	\$60,000

**F. Schedule**

1. GPS travel time runs – Initiate in mid/late FY 11 and carry over to FY 12
2. CMP Work Scope – September 2010 – February 2011
3. Safety Data – Establish process and procedures for receiving and maintaining data (schedule established upon VDOT providing initial data)
4. 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 11 UWP for addressing questions on previously conducted studies and for review and assistance in related matters.

#### 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.
2. Review other access management related matters and address as appropriate (time and budget permitting).

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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**

	<u>PL</u>
RRPDC	\$3,000

- ① 1/21/11 TAC action on behalf of MPO to reduce PL funds by \$5,000 (shifted to other RRPDC 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. Staff has received the *Virginia Central Region ITS Architecture Implementation Plan, Version 1.0* (dated June 23, 2009) and the *Virginia Central Region ITS Architecture Maintenance Plan Version 1.0* (dated June 30, 2009) and held meetings with VDOT staff in September 2009 to discuss the MPO's role in ITS architecture and formation of a regional ITS technical workgroup. Presentations were given by VDOT and RRPDC staffs at the July 16 and the September 17 TAC meetings, with staff's initial recommendation to establish an ITS TAC resource and work group. Staff also conducted several visits to an ITS/Highway Safety work group in Hampton Roads. At the February 18, 2010 TAC meeting, staff presented a proposal for the establishment of a Richmond Region ITS/TAC work group composed of local government planners and traffic operations engineers, and staff from VDOT, FHWA, GRTC, RMA CRAC, VDRPT and RideFinders to address the following:

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- Recommendations for enhancement and improvement of existing services.
- Recommendations for new services.
- Report on project and services coordination.
- Recommendations for project priorities.

Staff also proposed the primary functions for the ITS/TAC work group as follows:

- Provide a regional forum for discussion of ITS related issues, projects, plans and programs.
- Facilitate and promote use and maintenance of the VDOT Central Region ITS Architecture.
- Promote and assist in integrating the ITS architecture into the regional planning process.

The ITS/TAC work group would be available to address projects and programs as requested by VDOT, VDRPT, local governments, and regional transportation agencies (i.e., GRTC, RMA, CRAC) to facilitate the integration of ITS projects into state and regional plans and programs. Note that ITS is addressed as part of the MPO's LRTP and staff is working to integrate it into overall regional planning processes.

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

1. Establishment of the ITS/TAC work group composed of planners and traffic operations engineers from VDOT, VDRPT, GRTC, RMA, CRAC and area local governments, and charged with providing the following:
  - Recommendations for enhancement and improvement of existing services
  - Recommendations for new services
  - Report on project and serve coordination
  - Recommendation for project printers

The primary functions of the ITS/TAC work group are as follows:

- Provide a regional forum for discussion of ITS related issues, projects, plans and programs
  - Facilitate and promote use and maintenance of the VDOT Central Region ITS Architecture
  - Promote and assist in integrating the ITS architecture into the regional planning process
2. Ongoing and active ITS/TAC work group.

**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. Establish ITS/TAC Work Group – Present staff proposal for MPO review and action. Following MPO action, follow up with appropriate agencies for designating work group members and other contacts
2. Conduct initial ITS/TAC Work Group meeting
3. Conduct Ongoing Meetings as Needed – Staff anticipates that this group should generally meet on a quarterly basis.
4. Provide reports and recommendations on projects, programs, and services based on the VDOT Central Region ITS Architecture.

**D. Agency Participation**

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

**E. Budget, Staff and Funding**

	<u>PL</u>	<u>5303</u>	FY 10 CO <u>5303</u>	<u>TOTAL</u>
RRPDC	37,000	–	–	\$37,000

**F. Schedule**

Ongoing process.

**4.0 TRANSPORTATION PROJECT PROGRAMMING**

**4.1 Transportation Improvement Program (TIP)**

**A. Background**

As federally funded highway and transit projects and programs move from the planning to the implementation phase, such projects and programs must be reviewed and approved by the MPO. The MPO's approval allows the project or program to be included in the TIP. Once in the TIP, it shows that sufficient funds are available, or are reasonably expected to become available in the near future (i.e., one to four years) for a project, project phase, or program to move forward for implementation. It allows the implementing agency (i.e., state, local government or regional agency) to submit its request for federal funds for this project or program.

The RRPDC serves as lead staff for developing and maintaining the TIP. However, all federal-aid highway funds and most federal-aid transit funds are managed and administered by VDOT and VDRPT. As a result, projects and programs that are ready to move forward for implementation must first be reviewed with their proposed funding request authorized by VDOT or VDRPT.

In addition to state and federally funded highway and transit projects and programs, locally and privately funded highway projects that are considered "regionally significant" are also included in the TIP (and the LRTP) for air quality conformity analysis 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)
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.

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- 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 expired in September 2009 with several extensions already approved by Congress (most recent extension is through December 31, 2010). Staff will monitor the reauthorization and integrate any new/revised metropolitan planning requirements as they come into effect.

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 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.
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

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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. Inclusion of 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.
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

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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.
  11. MPO Certification – In TMA's, the USDOT Secretary shall certify the planning process at least once every four years. 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 2010, with a final report expected in early FY 2011.
  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

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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).

In addition to developing and maintaining the TIP, RRPDC staff identifies regional priority projects and advocates for the allocation of funds to these projects, and it has lead authority in allocating federal funds under the Regional Surface Transportation Program (RSTP) and Congestion Mitigation Air Quality (CMAQ) program

### **B. End Products**

1. Annual listing of obligated projects from preceding program year. (Projects to be posted on RRPDC web site by December 30, 2010.
2. 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.
3. Development and submission of the MPO's list of regional transportation 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

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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. Note that VDOT is working to establish an ongoing process for financial close-out of completed RSTP and CMAQ projects. This will allow the MPO to reallocate RSTP and CMAQ funds remaining from completed projects.
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. Annual Listing of Obligated Projects – The annual listing of obligated projects “shall be a cooperative effort of the state, transit operator, and MPO” and shall include “investments in pedestrian walkways and bicycle transportation facilities” for which federal funds have been obligated in the preceding year. Note that RRPDC staff supplements the VDOT and VDRPT provided Annual Listing of Obligated Projects (covering projects with funds obligated in the preceding federal fiscal year) with those projects with planned obligations (VDOT’s and VDRPT’s reports only cover actual obligations).
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.
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.

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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.
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 – Annual activity to identify the region's list of priority projects. These projects are described in a report document (i.e., Regional Transportation Priority Projects Report), submitted to the Commonwealth Transportation Board (CTB) for its review and consideration in allocating state and federal funds in the Six-Year Improvement Program (SYIP), and can be submitted by MPO member local governments and agencies in seeking federal, state and other potential sources of funds.
13. Next TIP – Initiate staff work activities to develop the upcoming TIP. The current TIP was adopted by the MPO in August 2008 and will remain valid until August 2012. Staff's initial review will look at proposed changes to the TIP format and content (initial review to be conducted with input from VDOT and VDRPT). The MPO's Statement of Certification will be included with the new TIP.
14. Coordinate listing and description of progress in the implementation of TCM's (if appropriate).
15. TIP Availability in Electronically Accessible Format – Post MPO adopted TIP and other appropriate documents on the RRPDC web site.

### **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>5303</u>	<u>TOTAL</u>
RRPDC	178,000	20,000	\$198,000

① 1/21/11 TAC action on behalf of MPO to increase PL funds by \$10,000 (shifted from other RRPDC staff work tasks).

**F. Schedule**

1. Next TIP – VDOT to advise MPO as to schedule for submission; TIP timeframe will depend on when VDOT advises the MPO
2. TIP Amendments/Adjustments – Ongoing activity
3. Regional Priority Projects – July 2010 to November 2010
4. FY 12 to FY 15 RSTP/CMAQ Project Review and Selection – February 2011 to May 2011
5. Annual Listing of Obligated Projects Report – VDOT and VDRPT to provide annual listing of actual project obligations during the preceding program year (i.e., federal fiscal year) to RRPDC by December 1, 2010 and final list to be posted on RRPDC web site by December 31, 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. Work on this report

## FY 11 UWP Task 5.2

should be initiated in late FY 2010. The last Transportation Operators Inventory report was completed in March 2005.

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 various human/social service agency/organization advisory committees and work groups.
6. 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</u>	<u>5303</u>	<u>FY 10 CO</u> <u>5303</u>	<u>TOTAL</u>
RRPDC	–	43,076 <sup>①</sup>	30,000	\$73,076

<sup>①</sup> 10/14/10 MPO action to add \$76 in FY 11 Section 5303 funds (addition based on final allocation for FY 11 Section 5303 funds; submitted by DRPT to RRPDC staff on 7/21/10).

### F. Schedule

1. Transportation Operators Inventory – FY 2010 to November 2010
2. Transportation Services Report – September 2010 to January 2011
3. Other activities are ongoing.

## 5.4 GRTC Transit Development Plan (TDP)

### A. **Project Description**

Transit Development Plans (TDPs) are designed to help transit operators improve their efficiency and effectiveness by identifying the need and required resources for modifying and enhancing services provided to the general public. TDPs also provide a solid foundation for funding requests and feed directly into the programming process (i.e., budgeting, funding and implementation of a transit operators capital needs program and transportation services). To capture the benefit of this planning tool, DRPT now requires that any public transit (bus, rail, ferry) operator receiving state funding prepare, adopt, and submit a TDP. DRPT requires that a TDP be completed every six years. DRPT also requires the annual submission of a letter by the transit operator describing progress made towards implementing the TDP and any significant changes. The planning horizon for the TDP is a minimum of six years (a longer planning horizon may be required to reflect significant capital replacement/rehabilitation needs, or the capital and operating budget implications of significant service expansion). Items identified by DRPT as the purpose of the TDP are as follows:

- To improve the efficiency and effectiveness of public transportation services in the Commonwealth of Virginia.
- To serve as a management and policy document for the transit operators.
- To maximize the investment of public funds and achieve the greatest possible public benefit.
- To provide the basis for inclusion of an operator's capital and operating programs in planning and programming documents such as: the Six Year Improvement Program (SYIP), Statewide Transportation Improvement Program (STIP), Transportation Improvement Program (TIP) and Constrained Long-Range Plan (CLRP).

GRTC completed the Comprehensive Operations Analysis (COA) Final Report in March 2008. Many of DRPT's requirements are addressed by the COA and some of these requirements may be addressed in other GRTC reports and/or studies. Outlined under the UWP work elements are the chapters prescribed by DRPT to be included in the TDP.

### B. **End Product**

An adopted Transit Development Program (TDP) that meets all DRPT specified requirements.

**C. Work Elements**

The adopted TDP will be required to address all plan requirements and its format must follow the chapter structure as specified by DRPT. Outlined below are the chapters to be included in the TDP with a brief summary of each chapter.

1. Overview of Transit System – Brief overview of the transit system including the following elements:
  - History
  - Governance
  - Organizational Structure
  - Transit Services Provided and Areas Served
  - Fare Structure
  - Fleet
  - Existing Facilities
  - Transit Security Program
  - Public Outreach
2. Goals, Objectives and Standards – Describe current goals, objectives and standards; process for their review and update; and changes from prior TDPs.
3. Service and System Evaluation – Describe the evaluation process and evaluate route-level and system-wide performance against current performance standards for each mode and/or type of service.
4. Service Expansion Project Descriptions – Provide a separate project description summarizing each service expansion project.
5. Operations Plan – Describe fixed route and demand response services the operator intends to provide over the TDP period. From the current base of operations, the plan will incorporate changes that reflect the ongoing evaluation of services/systems with respect to adopted goals, objectives, standards and legal and regulatory requirements. The plan should be constrained based on “reasonably” expected revenues.
6. Capital Improvement Program (CIP) – The CIP describes the capital programs required to carry out the operations and services identified in the operating plan. The CIP provides the basis for requests for federal, state and regional funding for capital replacement, rehabilitation, and expansion projects. The CIP should reflect the operator’s “reasonable” expectation of funding.
7. Financial Plan – A principal objective of the TDP is to demonstrate that the operator is planning a sustainable level of transit service over the planning period, including rehabilitation and replacement of capital assets. The capital and operating budgets need to consider expense forecasts; federal, state, regional and local revenue projections; future policies; labor or service

## FY 11 UWP Task 5.4

agreements; competitive demands on funding; and regional priorities and policies.

8. TDP Monitoring and Evaluation – Describe the process that will be undertaken to periodically monitor and evaluate the progress that has been made towards successfully implementing the TDP and integrating it with other internal and external planning documents.
9. Appendix – The following documents must be included in the TDP appendix:
  - Most recent FTA Triennial Review report
  - Most recent Title VI report
  - Table containing the transit operator’s fleet inventory
  - Three-year retrospective of operating and capital expenses and revenues

Note that DRPT expects for MPOs to consider information in the TDP when developing MPO plans and creating the TIP. In view of this, the draft TDP shall be submitted and presented to the MPO’s Technical Advisory Committee (TAC) for review, comment, and recommendation to the MPO. The final draft TDP shall be submitted and presented to the MPO for review and action to accept.

### **D. Agency Participation**

GRTC, GRTC consultant, RRPDC, DRPT, FTA, local governments, RideFinders

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

	<u>5303<sup>①</sup></u>	<u>DRPT<sup>②</sup></u>	<u>TOTAL</u>
GRTC Consultant	65,000	74,614	\$139,614

① Action at the October 14, 2010 MPO meeting to shift \$61,000 in Section 5303 funds for task 1.1 contingency to task 5.4 and to shift \$4,000 in Section 5303 funds from task 2.3 to task 5.4.

② Action taken at February 17, 2011 Technical Advisory Committee meeting on behalf of MPO to amend UWP task 5.4 to program \$74,614 in DRPT Technical Assistance Grant funds (100% state funds).

### **F. Schedule**

Completion date is 11/1/11. Final TDP due to DRPT by 12/1/11.

## 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 2011 include the following:

- Review/participation in GRTC's Bus Rapid Transit (BRT) Alternatives Analysis for the Broad Street corridor.
- Provide for MPO review/participation in various rail studies and projects (e.g., Richmond/Hampton Roads Passenger Rail Project Tier I Final EIS, Main Street Station, Southeast High Speed Rail Corridor studies and projects, both north and south of the Richmond Region). Also review, monitor and report on the availability and programming of ARRA/Stimulus high speed rail funding program.
- Review of various local and regional proposals for expanded public transportation services.
- Attend and report (at staff level) on GRTC Board meetings.
- Attend/participate on the RideFinders Advisory Board.

### 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, studies, and projects.

**D. Agency Participation**

RRPDC, GRTC, RideFinders, local governments, VDRPT, FTA.

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

	<u>PL<sup>①</sup></u>	<u>5303</u>	<u>FY 10 CO</u> <u>5303</u>	<u>TOTAL</u>
RRPDC	\$5,000	31,000	10,000	\$46,000

① 1/21/11 TAC action on behalf of MPO to increase PL funds by \$5,000 (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.

The Coordinated Human Services Mobility Plan (CHSMP) establishes the construct for a unified comprehensive strategy for transportation service delivery in both the Richmond Area and Tri-Cities Area MPOs. It is focused on unmet transportation needs of seniors, disabled, and low-income. The CHSMP includes the following federally required elements:

1. Assessment of available services identifying current providers (public and private).
2. Assessment of transportation needs of the elderly, disabled and low-income.
3. Strategies, activities, and/or projects to address the identified gaps between current services and needs, as well as opportunities to improve efficiencies in service delivery.
4. Priorities for implementation based on resources, time, and feasibility for implementing specific strategies and/or activities.

The CHSMP serves as a comprehensive, unified plan that promotes community mobility for the elderly, disabled and low-income; establishes priorities to incrementally improve mobility for these groups; and provides an ongoing process to identify partners interested, willing and able to promote community mobility for these groups. One remaining effort for the CHSMP planning process is the development of an ongoing structure and process for future coordinated

transportation planning efforts. This effort should be initiated in late FY 2010 or early FY 2011. Note that the MPO took action at its October 9, 2008 meeting to approve the CHSMP and to endorse the establishment of and authorize the participation of those designated by GRTC on a project review and selection committee for the purpose of reviewing and scoring applications for FTA Section 5316 and 5317 funds as administered by GRTC (MPO also specified the member organizations for this project review and selection committee).

**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:

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.

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[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.
3. Provide technical and administrative assistance to VDRPT in conducting reviews of requests for FTA Section 5310 funds (including reviews of application procedures and addressing applicants' transportation needs including coordination with other area transportation providers and human service agencies and organizations).

### 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</u>	<u>5303</u>	<u>TOTAL</u>
RRPDC	–	15,000	\$15,000

### F. Schedule

1. Developing CHSMP ongoing structure and process for future coordinated transportation planning efforts – To be determined (following consultation with GRTC, VDRPT, and Crater PDC).
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) and Environmental Assessment will develop a detailed problem statement representing the purpose and need of the project from which project goals and objectives will be derived. The Alternatives Analysis will be conducted in accordance with the Environmental Assessment (EA) guidelines, as required by the National Environmental Protection Act (NEPA) of 1969.

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. A detailed station area analysis will be conducted to identify appropriate station locations and assess the adjacent land-use compatibility. Ridership forecasts will be developed to contribute to the evaluation of the alternatives. 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.

The Project Team will collaborate with a Policy Advisory Committee (PAC) and a Technical Advisory Committee (TAC) that is comprised of representatives from the City of Richmond and Henrico County, as well as representatives from the Virginia Commonwealth University (VCU), the Convention Center, the MPO, etc. In addition to the TAC and PAC oversight, public outreach and communications to the public will facilitate DRPT’s and GRTC’s ability to gain public involvement and input throughout the AA and EA planning and project development process.

**G. Project Budget**

In FY 2009, DRPT and GRTC programmed \$720,000 flexible STP (allocated by the state) and local match of \$180,000 (\$90,000 state and \$90,000 GRTC). In FY 2010 DRPT and GRTC programmed \$873,142 of Section 5304 funding (allocated by the state) and local match of \$180,000 (allocated by GRTC) to provide an additional \$1,053,142 of funding to the project. The total project budget between FY 2009 and FY 2010 is \$1,953,142.

## 5.8 Richmond Area Rail Studies and Projects

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

### Virginia State Rail Plan

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

The 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 *Virginia Statewide Rail Resource Allocation Plan* was released in December 2008 to assist in programming funds. The *Virginia Statewide Rail Plan* was completed in December 2008.

### Southeast High Speed Rail – Raleigh to Richmond

In cooperation with the North Carolina Department of Transportation (NCDOT), the Virginia Department of Rail and Public Transportation (VDRPT) continues to advance high speed rail in Virginia, and the Commonwealth's contributions toward the Southeast High Speed Rail Project will:

- Evaluate high speed passenger rail service on the designated high speed rail corridor from Raleigh, N.C. through Richmond to Washington, D.C.;
- 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, and CSX 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, and federal partners. VDRPT is coordinating with the 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, N.C. The Draft EIS is slated for completion during the spring of 2010 with public hearings during the summer of 2010. The Final Tier II EIS and Record of Decision for this segment of the Southeast High Speed Rail Corridor (SEHSR) corridor will follow (anticipated in 2011).

**Southeast High Speed Rail – Richmond to Washington, D.C.**

On May 27, 2009, VDRPT announced that the high speed rail route between Main Street Station and Doswell (Hanover County) was established following the completion of an environmental study to select the most feasible route between these two points. The study looked at an eastern route, which followed the Buckingham Branch line, and a western route, which followed the CSX rail line (which currently serves Amtrak routes). FRA notified VDRPT on May 13, 2009 that findings from the environmental study were confirmed and that the eastern route may be dismissed from further consideration. With this announcement, the SEHSR corridor from Main Street Station north to Washington, D.C. was now defined. VDRPT noted that work can now move forward with the I-95 corridor development plans to support enhanced passenger and freight rail service along the corridor.

Arkendale to Powell's Creek (in Northern Virginia Section of rail corridor); third main line track covering 11 miles, fully funded by ARRA Program. Environmental Assessment and Preliminary Engineering being finalized, with stakeholder input. Negotiations with FRA currently ongoing to begin construction.

**Richmond to Hampton Roads Passenger Rail Project**

The VDRPT is pursuing improved passenger rail service in the major east-west travel corridor between Richmond and the Hampton Roads regions of Virginia, to ultimately connect to the Southeast, Northeast and Mid-Atlantic regions as an extension of the Southeast High Speed Rail Corridor. This potential project could include improvements to existing service or the development of new rail service to accommodate frequent passenger trains. New service could include a link to Hampton Roads via Route 460, rail improvements to existing lines in or around Petersburg. VDRPT completed a series of public meetings on the Tier I Draft Environmental Impact Statement document on alternatives for Richmond to Hampton Roads passenger rail service. The Richmond Area MPO took action at its February 11, 2010 meeting to endorse Alternative One of the Tier I Draft EIS and noted its further support of high speed rail, which is summarized as follows:

- Reaffirms the MPO's strong support for the extension of high speed rail in the Washington, D.C. to Richmond Region corridor followed by high speed rail from the Richmond Region east to the Hampton Roads Region and south along the Southeast High Speed Rail corridor.
- Supports high speed rail capable of more than 110 mph along the U.S. Route 460 corridor connecting Richmond to Norfolk.
- Supports enhancing passenger rail along the Peninsula I-64 corridor from Richmond to Hampton Roads.
- Urges VDRPT to move forward as quickly as possible to complete all plans and programs for high speed rail in the Washington, D.C. to Richmond Region corridor.

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- Pledges MPO support to assist VDRPT in its efforts to secure high speed rail funding for service throughout the state.

The Commonwealth Transportation Board (CTB) took action at its February 18, 2010 meeting to select Alternative One as the preferred alternative. Following FRA review and action, VDRPT plans to proceed with developing the final draft EIS based on Alternative One as the Preferred Alternative.

### **ARRA High Speed Rail Funding Program**

As part of the American Recovery and Reinvestment Act (ARRA, enacted February 17, 2009), \$8.0 billion was set aside for intercity high speed passenger rail projects with “Track One” (shovel-ready) applications due to FRA on August 24, 2009 and “Track Two” (development programs) due on October 2, 2009. A total of 259 applications requesting approximately \$57 billion in ARRA stimulus funds were submitted. Virginia submitted three applications, which are summarized as follows:

- Round One/Track Two – Washington, D.C. to Petersburg; \$1.8 billion, 19 projects covering 112 miles (passing tacks, switches, signal improvements, station improvements, yard improvements)
- Round One/Track One – Arkendale to Powell’s Creek (in Northern Virginia Section of rail corridor); \$74.8 million, third main line section covering 11 miles.
- Round Two/Track Two – Richmond to Hampton Roads; \$330 million to \$844 million (includes Southside NS routes and Peninsula CSXT route).

The ARRA funding awards were announced on January 28, 2010. The Arkendale to Powell’s Creek project was fully funded; future projects in the federally designated Southeast High Speed Rail Corridor are currently under development as part of Virginia’s strategic rail corridor program. The \$75 million grant supports Virginia’s top shovel ready project, and is part of an incremental approach to improving passenger rail service in Virginia. The Commonwealth anticipates applying for future federal funds.

**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 Phase Two report was completed in early FY 10 with recommendations incorporated into the VTrans 2035 Statewide Transportation Plan. The Statewide Multimodal Freight Study provides a comprehensive look at Virginia's freight issues covering all transportation modes at statewide and corridor levels, and all types of freight movement (local/regional and through).

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.

In late FY 10, the MPO's Intermodal Strategies and Action Study will be completed. Work on this study was initiated in October 2008 and was funded under a VDOT Multimodal Planning Grant. Recommendations from the study will be reviewed and considered by the MPO with follow-up actions taken as part of this UWP task and UWP task 2.2, LRTP Update. Project

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recommendations may be considered for funding (following the state and the MPO's process for reviewing and selecting projects and allocating and obligating funds).

### **B. End Products**

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

### **C. Work Elements**

1. Port of Richmond Strategic Development Plan – RRPDC staff to review with Port of Richmond Commission, City of Richmond, and Virginia Port Authority staffs and officials, revisions/updates to the Port of Richmond Capital Facilities Plan and the proposed development of a Port of Richmond Strategic Plan. Input from all of these parties will be required prior to initiating this effort. A more detailed list of work activities, estimate of staff time and costs, schedule and work scope will be developed should there be agreement to initiate this plan.
2. Intermodal Economic Development Strategies – The City of Richmond is currently conducting a Comprehensive Economic Development Strategy (CEDS). The RRPDC will be conducting a Regional CEDS (anticipated start will be early FY 2011). A review and analysis of the Port of Richmond and its role in both the City and Regional CEDS is anticipated. Staff will work with City staff and other local governments and organizations in identifying and complementing appropriate strategies and actions from the City and Regional CEDS.
3. 64 Express/James River Barge Project – Administrative and technical staff support for this CMAQ funded demonstration project (service initiated on December 2, 2008; CMAQ funds eligible for use until November 30, 2011).
4. Intermodal Strategies and Actions Study – Provide staff technical and administrative assistance in carrying out various programs and follow-up activities as identified in the Intermodal Strategies and Actions Study (to be completed in FY 2010). Staff anticipates that an annual freight forum for freight users and local regional and state government organizations will be established to provide for continuing input from the freight users community carrying out various strategies and actions, and continuing the regional freight planning process. Prior to initiating the freight forum, staff will hold informal meetings and discussions with various freight users/modes, shippers, and other interested parties.

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- 5. General Freight Planning Activities – RRPDC staff support for state and local governments, economic development organizations, and freight interest groups and organizations for freight related planning activities. Also, participate on VDOT and other advisory committees and groups involved in multimodal freight planning.

**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</u>	<u>5303</u>	<u>TOTAL</u>
RRPDC	58,000	–	\$58,000

**F. Schedule**

Ongoing

**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 were expected to occur in March 2010. However, on January 6, 2010, EPA proposed to strengthen the national ambient air quality standards (NAAQS) for ground-level ozone, the main compound of smog. EPA is proposing that the 8-hour primary ozone standard be changed to a level within the range of 0.060 to 0.070 ppm (the current primary 8-hour average ozone standard is 0.075 ppm). EPA is scheduled to issue the new final standards by August 31, 2010. The estimated timeline for implementing the proposed new standards is as follows:

- By January 2011: States make recommendations for areas to be designated attainment, nonattainment or unclassifiable.
- By July 2011: EPA makes final area designations.
- By August 2011: Designations become effective.
- 2014 to 2031: States are required to meet the primary standard, with deadlines depending on the severity of the problem.

It is important to note that in a separate rule, EPA proposed in July 2009 to modify the ozone air quality monitoring network design requirements. The proposed monitoring revisions would change minimum monitoring requirements in urban areas, add new minimum monitoring requirements in non-urban areas, and extend the length of the required ozone monitoring season.

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.
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</u> <sup>①</sup>	<u>5303</u>	<u>TOTAL</u>
RRPDC	34,000	–	\$34,000

<sup>①</sup> 1/21/11 TAC action on behalf of MPO to increase PL funds by \$15,000 (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 anticipated to be complete in 2012 and has received wide public support. The East Coast Greenway (ECG), a continuous path from Florida to Maine, requires a regional thoroughfare through this region and needs a local effort to support it. The James River Heritage Trail (JRHT) is shown running along the south shore of the James River in Chesterfield and Powhatan counties and the City of Richmond. Both the ECG and the JRHT are shown in the Virginia Outdoors Plan as proposed trails.

In FY 2010, RRPDC staff developed an inventory of existing planned and programmed bicycle facilities (i.e., signed and/or marked bike lanes, multi-purpose trails, wide paved shoulders, and major signed bike routes). Staff will also be working to develop an inventory of existing pedestrian facilities (along roads functionally classified as collector and above). Areas well covered with sidewalks along local roads will also be generally identified.

Once these regional inventories are complete, staff plans to work with each local government and with participation from interested groups and organizations, conduct a review and assessment of current conditions including the current comprehensive plan, and to develop a plan of action. It should be noted that trails which serve as a significant component to the jurisdiction's transportation network (i.e., provides connections to major

activity centers and neighborhoods, serves as a potential commuter route, etc.) and are not limited to parks/recreational areas will also be considered. Staff will also give attention to assessing the bicycle and pedestrian facilities within the GRTC local bus service area, in order to improve accessibility to and from bus stops.

**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 and pedestrian facilities.
3. Development of an updated Regional Bicycle and Pedestrian Plan utilizing local plans of action and a regional review and assessment of these plans.

**C. Work Elements**

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 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)).

Work activities include the following:

1. Development of a regional database of existing, planned, signed and designated bicycle routes and facilities (map work to be completed in FY 2010).
2. Conduct assessment of the *2004 Regional Bicycle and Pedestrian Plan* to identify opportunities for implementation of plan recommendations, projects and programs. The goal of this effort is to establish a continuing and cooperative process by which the MPO works with area local governments and interested groups and organizations to identify, develop and improve bicycle and pedestrian access, safety and mobility.
3. Development of a regional database of existing, planned and designated multi-purpose trails/greenways.

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4. Development of a regional database of planned, programmed (funds committed) and existing pedestrian facilities along major roads. Identification of such facilities should be based on the following criteria:
  - Facilities along roads functionally classified as collector or higher
  - Facilities located along GRTC local bus routes
  - Other facilities identified by local government staffs as significant pedestrian facilities
5. Working with area local governments and interested groups and organizations, review and assess current conditions for pedestrian, bicycle and transportation oriented trail facilities, and develop a plan to provide for a comprehensive bicycle and pedestrian network within the jurisdiction (including planned connections to adjacent jurisdictions).
6. Conduct periodic regional assessments of local comprehensive bicycle and pedestrian networks (as individual jurisdiction level reviews and action plans are completed) to provide for the development of an updated Regional Bicycle and Pedestrian Plan based on these local comprehensive plans.
7. Provide continued technical assistance to the City of Richmond in planning for trails that are regionally significant (e.g., East Coast Greenway Trail, Virginia Capital Trail, etc.) and with the city's efforts to establish a city-wide trail, bicycle and pedestrian network. Technical assistance will also be provided to other local governments based on a formal request from the local government (with staff technical assistance limited to planning for regionally significant trails and bicycle facilities or establishing a jurisdiction-wide system of trails and bicycle facilities).
8. Participation in National Park Service and Virginia Department of Conservation and Recreation meetings/work activities for regional multi-state trail facilities (e.g., East Coast Greenway, James River Heritage Trail, etc.).

### **D. Agency Participation**

RRPDC, VDOT, VDRPT, GRTC, 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>①</sup></u>	<u>5303</u>	FY 10 CO <u>5303</u>	<u>TOTAL</u>
RRPDC	35,000	-	16,000	\$51,000

<sup>①</sup> 1/21/11 TAC action on behalf of MPO to reduce PL funds by \$5,000 (shifted to other RRPDC staff work tasks).

**F. Schedule**

Ongoing activity.

**AGENCY BUDGET SUMMARY SHEET**  
**FHWA PL/SPR; FTA SEC 5303; VDOT MULTIMODAL PLANNING GRANT**  
**FY 2011 UWP - RICHMOND AREA MPO**

Task No/ Abbrev	RRPDC				VDOT SPR	OTHER	TOTAL						GRAND TOTAL
	PL	5303	CO 5303	OMF (1)			PL	SPR	5303	CO 5303	OMF (1)	OTHER	
1.1 MPO Maint	487,056	30,199	-	-	136,000	-	487,056	136,000	30,199	-	-	-	653,255
1.1 Conting.	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2 Citi Partic	120,000	-	-	-	-	-	120,000	-	-	-	-	-	120,000
1.3 UWP	60,000	-	-	-	-	-	60,000	-	-	-	-	-	60,000
2.1 Data	78,000	14,000	8,261	-	-	-	78,000	-	14,000	8,261	-	-	100,261
2.2 LRTP	68,000	10,000	5,000	-	-	-	68,000	-	10,000	5,000	-	-	83,000
2.3 RTDM	67,000	16,000	5,000	-	-	-	67,000	-	16,000	5,000	-	-	88,000
2.5 TD/GIS	100,000	-	-	-	-	-	100,000	-	-	-	-	-	100,000
2.8 Rt. 5 Study (3)	29,000	-	10,000	-	400,000	-	29,000	400,000	-	10,000	-	-	439,000
2.9 City SMTP (2)	-	-	-	-	-	500,000	-	-	-	-	-	500,000	500,000
3.1 CMP	45,000	10,000	5,000	-	-	-	45,000	-	10,000	5,000	-	-	60,000
3.2 Access Mgt	3,000	-	-	-	-	-	3,000	-	-	-	-	-	3,000
3.3 ITS	37,000	-	-	-	-	-	37,000	-	-	-	-	-	37,000
4.1 TIP	178,000	20,000	-	-	-	-	178,000	-	20,000	-	-	-	198,000
5.2 E&D TNS	-	43,076	30,000	-	-	-	-	-	43,076	30,000	-	-	73,076
5.4 GRTC/TDP (4)	-	65,000	-	-	-	74,614 (5)	-	-	65,000	-	-	74,614	139,614
5.5 RPTS	5,000	31,000	10,000	-	-	-	5,000	-	31,000	10,000	-	-	46,000
5.6 CHSMP	-	15,000	-	-	-	-	-	-	15,000	-	-	-	15,000
5.7 RBRT (2)	-	-	-	-	-	-	-	-	-	-	-	-	-
5.8 Rail (2)	-	-	-	-	-	-	-	-	-	-	-	-	-
6.1 IM Plg.	58,000	-	-	-	-	-	58,000	-	-	-	-	-	58,000
7.1 Air Q. Plg.	34,000	-	-	-	-	-	34,000	-	-	-	-	-	34,000
8.1 Bike/Ped Plg.	35,000	-	16,000	-	-	-	35,000	-	-	16,000	-	-	51,000
<b>TOTAL (\$)</b>	<b>1,404,056</b>	<b>254,275</b>	<b>89,261</b>	<b>-</b>	<b>536,000</b>	<b>574,614</b>	<b>1,404,056</b>	<b>536,000</b>	<b>254,275</b>	<b>89,261</b>	<b>-</b>	<b>574,614</b>	<b>2,858,206</b>

- NOTES:
- (1) RRPDC Over Match Funds (OMF) or in-kind staff match (100 percent RRPDC local funds).
  - (2) Work conducted by state, local or regional agency staff and/or consultant (UWP information item).
  - (3) Work conducted by RRPDC staff and consultant.
  - (4) Work conducted by GRTC consultant.
  - (5) DRPT Technical Assistance Grant Funds (100% state funds).

**FUNDING SOURCES SUMMARY SHEET  
FHWA PL/SPR; FTA SEC 5303; VDOT MULTIMODAL PLANNING GRANT  
FY 2011 UWP - RICHMOND AREA MPO**

Task No./ Abbrev.	PL		SPR		5303		CO 5303		RRPDC	OTHER		TOTAL		GRAND TOTAL
	Federal	State/Local	Federal	State	Federal	State/Local	Federal	State/Local	OMF (1)	Federal	State/Local	Federal	State/Local	
1.1 MPO Maint	389,645	97,411	108,800	27,200	24,159	6,040	-	-	-	-	-	522,604	130,651	653,255
1.1 Conting.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2 Citi Partic	96,000	24,000	-	-	-	-	-	-	-	-	-	96,000	24,000	120,000
1.3 UWP	48,000	12,000	-	-	-	-	-	-	-	-	-	48,000	12,000	60,000
2.1 Data	62,400	15,600	-	-	11,200	2,800	6,609	1,652	-	-	-	80,209	20,052	100,261
2.2 LRTP	54,400	13,600	-	-	8,000	2,000	4,000	1,000	-	-	-	66,400	16,600	83,000
2.3 RTDM	53,600	13,400	-	-	12,800	3,200	4,000	1,000	-	-	-	70,400	17,600	88,000
2.5 TD/GIS	80,000	20,000	-	-	-	-	-	-	-	-	-	80,000	20,000	100,000
2.8 Rt. 5 Study	23,200	5,800	320,000	80,000	-	-	8,000	2,000	-	-	-	351,200	87,800	439,000
2.9 City SMTP	-	-	-	-	-	-	-	-	-	400,000	100,000	400,000	100,000	500,000
3.1 CMP	36,000	9,000	-	-	8,000	2,000	4,000	1,000	-	-	-	48,000	12,000	60,000
3.2 Access Mgt	2,400	600	-	-	-	-	-	-	-	-	-	2,400	600	3,000
3.3 ITS	29,600	7,400	-	-	-	-	-	-	-	-	-	29,600	7,400	37,000
4.1 TIP	142,400	35,600	-	-	16,000	4,000	-	-	-	-	-	158,400	39,600	198,000
5.2 E&D TNS	-	-	-	-	34,461	8,615	24,000	6,000	-	-	-	58,461	14,615	73,076
5.4 GRTC/TDP (4)	-	-	-	-	52,000	13,000	-	-	-	-	74,614 (5)	52,000	87,614	139,614
5.5 RPTS	4,000	1,000	-	-	24,800	6,200	8,000	2,000	-	-	-	36,800	9,200	46,000
5.6 CHSMP	-	-	-	-	12,000	3,000	-	-	-	-	-	12,000	3,000	15,000
5.7 RBRT (2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.8 Rail (3)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.1 IM Plg.	46,400	11,600	-	-	-	-	-	-	-	-	-	46,400	11,600	58,000
7.1 Air Q. Plg.	27,200	6,800	-	-	-	-	-	-	-	-	-	27,200	6,800	34,000
8.1 Bike/Ped Plg.	28,000	7,000	-	-	-	-	12,800	3,200	-	-	-	40,800	10,200	51,000
<b>TOTAL (\$)</b>	<b>1,123,245</b>	<b>280,811</b>	<b>428,800</b>	<b>107,200</b>	<b>203,420</b>	<b>50,855</b>	<b>71,409</b>	<b>17,852</b>	<b>-</b>	<b>400,000</b>	<b>174,614</b>	<b>2,226,874</b>	<b>631,332</b>	<b>2,858,206</b>

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  - (5) DRPT Technical Assistance Grant Funds (100% state funds).