
*Hampton Roads
Transportation Planning Organization (HRTPO)*

*2016 Transportation Management Area
Certification Review Preparation Questions*



**U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration**

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2016 MPO Certification Review Preparation Questions

A. Recommendations from Previous Review and Metropolitan Planning Organization (MPO) Responses

Include a Status of follow-up actions on recommendations from the last TMA certification review.

“FHWA and FTA recommend that the TPO work with VDOT and look for opportunities to use the PEL initiative on projects in the region once this guidance is forthcoming.”

PEL is a federal initiative that represents an approach to transportation decision-making that considers environmental, community, and economic goals early in the planning stage. Tasks and activities the HRTPO has implemented/improved towards this end include:

- *Involving resource agencies early during the LRTP planning process. As part of the Environmental Mitigation consultation and discussion, environmental agencies around Hampton Roads were consulted regarding the development of the LRTP and provided maps of the candidate projects under consideration for inclusion in the Plan.*
- *Identification and consideration of natural and cultural issues in the planning process. Since these environmental agencies identified as part of the Environmental Mitigation process are considered the experts of their respective fields, the consultation with their agencies is done so with the intent to compare candidate projects to areas of their field (environmental quality, natural, historic resources, etc.).*
- *Project Prioritization. The Project Prioritization process includes criteria that consider community accessibility and economic impacts. Scores and rankings produced as part of this process feed into the development of the LRTP; evaluation data produced as part of this process can also be used as a project advances in design.*
- *Title VI/Environmental Justice Methodology. The HRTPO developed the Title VI/Environmental Justice methodology that evaluates candidate projects under consideration for inclusion in the LRTP. As part of this methodology, Title VI/EJ communities are identified and an impact extent is assigned to each candidate project. Once the extent of Title VI/EJ impacts are determined, public participation strategies are developed; these strategies can be used as a project advances in design.*

“A more comprehensive multimodal approach should be explored in the next LRTP development cycle that seeks to comprehensively address the region’s transportation needs with all modes working together to achieve the Plan’s goals.”

HRTPO staff endeavored to implement a more comprehensive multimodal approach on the 2040 LRTP. Some of the items involved in this effort to comprehensively address the region’s transportation needs included:

- *The project prioritization process evaluated transit and active transportation candidate LRTP projects*
- *As part of the 2009 update of the regional travel demand model, HRT’s modelling assumptions and components were incorporated*
- *A highway/transit funding split was established*
- *Forecasted TAP funding was set aside for active transportation projects*
- *HRTPO staff continued to participate in regional transit and active transportation committees and efforts, including:*
 - *TDCHR Board meetings*
 - *Rail and Public Transportation Task Force*
 - *TRAFFIX Oversight Subcommittee (TOS)*
 - *Pedestrian and Bicycle Advisory Committee (PABAC)*
 - *Freight Transportation Advisory Committee (FTAC)*
 - *Connect Hampton Roads*

A number of additional efforts will feed into the multimodal approach for the 2045 LRTP, including:

- *A new Multimodal Mobility task in the FY 2016 and FY 2017 UPWPs that includes the following projects:*
 - *Regional Public Transit Planning – Benchmarking Study*
 - *Transportation GAPS Analysis*
 - *Ridesourcing Study*
 - *Signature Paths*
 - *Active Transportation Safety Study*

○ *Regional Active Transportation Plan*

“The TPO, public transit operators and VDOT District staff need to work cooperatively to better comprehend how fiscal constraint for the Hampton Roads TIP is determined.”

Staff from the HRTPO, VDOT, DRPT, and the public transit operators worked cooperatively on the fiscal constraint of the current, FY 2015-2018, TIP. The Financial Plan section of the TIP, which was previously submitted to the Federal Team as part of the set of requested documents, provides a more detailed explanation of the fiscal constraint demonstration than what was provided in previous TIPs.

“The TPO and VDOT District staff needs to review the FHWA Operations and Maintenance Checklist for ensuring fiscal constraint (see Appendix H), identify relevant questions that require better understanding, and cooperatively assist in documenting a response.”

HRTPO and VDOT District staff reviewed the FHWA Operations and Maintenance Checklist for ensuring fiscal constraint and coordinated on providing a more detailed explanation of how fiscal constraint associated with operations and maintenance is determined. This explanation is included in the Financial Plan section of the TIP, which was previously submitted to the Federal Team as part of the set of requested documents.

“The TPO should demonstrate that the financial needs of both highway and transit providers pertaining to system maintenance and preservation, as well as state-of-good repair, are being reasonably met in the Hampton Roads region at the system-level as part of their fiscal constraint requirements.”

The Financial Plan section of the TIP, previously submitted to the Federal Team as part of the set of requested documents, provides this information.

“The TPO, transit operators, and VDOT staff need to work cooperatively to develop a process to improve accurate data and data sharing regularity for TIP development.”

HRTPO and VDOT staffs have worked cooperatively to develop a process in which a Monthly MPO Detailed Data Report is produced by VDOT and forwarded to the HRTPO. This monthly report is used by HRTPO staff to conduct a quarterly status update of the TIP. HRTPO staff works directly with the local transit operators to obtain updated project information per quarter for use in the HRTPO staff quarterly status update of the TIP.

“The TPO and State should develop an MOA for dealing with grouped projects in the TIP (23 CFR 450.324(f)). Specifically, the MOA should require the VDOT, VDRPT, and the TPO to cooperatively determine and ensure that the process provides project/program efficiency, clarity, and transparency for projects within grouped project line items contained in the metropolitan TIP.”

*Although an MOA has not been put in place, HRTPO staff led an effort by the Virginia Association of Metropolitan Planning Organizations (VAMPO) to develop the **Virginia TIP Preparation Guidance** (attached), which provides guidelines for developing TIPs. The project team for developing the Guidance included staff members from three Virginia MPOs, a representative from VDOT, and a representative from DRPT. The Guidance was submitted for formal review by VDOT, DRPT, FHWA, FTA, and the MPOs prior to final approval by VAMPO in October 2015. The approved Guidance has been transmitted to all Virginia MPOs, VDOT, and DRPT. Among the items included in the Guidance is the dealing with grouped projects.*

“The TPO needs to determine the degree to which project grouping is appropriate for their TIP. Should the TPO decide to continue to group projects then the TPO, VDOT, and VDRPT (who provides the group project listings for transit) must strive to maintain an accurate and updated list of projects that are within the group.”

*As stated above, the issue of project grouping is discussed in the **Virginia TIP Preparation Guidance**.*

“Due to of the restructuring changes at VDOT, an Addendum to the 3-C Agreement would be helpful to clarify which VDOT office now performs what planning and programming functions and how planning and programming tasks are to be coordinated and completed in cooperation with the TPO, VDRPT and transit operators (including projects status information).”

Since VDOT may restructure its functions at any time, the HRTPO has not deemed it practical or necessary to produce an addendum to the Metropolitan Planning Agreement in an attempt to document the effects of such restructuring.

“...the TPO and the VDOT need to cooperatively determine, to the extent possible, why a large discrepancy exists between projects in the TIP versus the AOR and begin to document an approach that reconciles future discrepancies between projects obligated in the TIP and the AOR, prior to public release.”

It was determined that the large discrepancies that previously existed between projects in the TIP versus the AOR were primarily due to FHWA authorizing obligations on projects that were not included in the TIP. During an October 9, 2013 meeting that included staffs from HRTPO, VDOT, and FHWA; VDOT stated that an agreement existed between FHWA and VDOT that allowed for the obligations of funds on projects not included in the current TIP if the projects were completed or canceled and undergoing financial close-out. FHWA concurred with the VDOT statement. Based on this new information, HRTPO staff requested that future AOR data from VDOT flag such projects so that HRTPO staff could identify the projects in the AOR that did not need to be included in the TIP. In the 2015 AOR, the effect of this flagging of such projects eliminated the issue of the discrepancy between projects in the TIP versus the AOR.

“To further advance current EJ efforts, the Texas Department of Transportation’s Guidebook for Identifying, Measuring and Mitigating Environmental Justice Impacts of Toll Roads should be used as a resource for both the TPO and the VDOT staff.”

The HRTPO has developed an EJ/Title VI Methodology which is used on all projects regardless of toll implications or not. The methods outlined in the Texas Department of Transportation’s Guidebook, are similar to those used in the HRTPO Methodology.

B. Description of Planning Area

1. Please provide a general briefing of the metropolitan area, i.e. demographics, development trends, etc., and discuss any major transportation issues in the area, highlighting any changes since the previous Planning Review.

The Hampton Roads metropolitan planning area (MPA) includes the cities of Chesapeake, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg; the counties of Isle of Wight, James City, and York; and a portion of Gloucester County.

For information on demographics, development trends, etc., please refer to the Hampton Roads Regional Benchmarking Study, HRPDC, June 2015. The Benchmarking study may be accessed on the HRPDC website at: http://hrpdcva.gov/uploads/docs/Hampton_Roads_Benchmarking_Study_2015.pdf.

Major transportation issues in Hampton Roads include:

- *House Bill 2313 (HB2313) passed by the Virginia General Assembly and signed into law in 2013 created the Hampton Roads Transportation Fund (HRTF).*
- *Making progress on the Regional Priority Projects*

In October 2013, the HRTPO Board identified a set of Regional Priority Projects to be funded, in part, with revenues from the Hampton Roads Transportation Fund (HRTF). The Hampton Roads Transportation Accountability Commission (HRTAC) is now responsible for decisionmaking on how the HRTF monies will be used to fund the Regional Priority Projects. The HRTPO and HRTAC coordinate closely on moving these projects forward. More information on the Regional Priority Projects may be accessed on the HRTPO website at: http://www.hrtpo.org/uploads/images/HRTF_Candidate_Project_Map_nocost.jpg and on the HRTAC website at: <http://www.hrtac.org/page/hrtac-projects/>.

- *Improving public transportation service, possibly involving the expansion of fixed-guideway service*

HRT and WATA are always working to improve public transportation service in the region. HRTPO staff is working with local transit providers on strategies to encourage choice or discretionary riders to opt for using public transit. HRT is currently working on a study on extending LRT to Town Center in Virginia Beach.

- *Building resilience into the transportation system*

Resilience refers to the capacity of a system to survive, adapt, and grow in the face of significant changes or events. Such changes may be foreseen, such as the expected impacts of sea-level rise; or unforeseen, such as a catastrophic event.

C. MPO Boundaries

1. Please provide a map(s) showing the following boundaries: Census-Urbanized Area (UZA), FHWA Urban Area Boundary (UAB), Metropolitan Planning Area Boundary (MPA), Which, if any, areas are under consideration for inclusion in an expanded MPA in the next 20 years? What factors will determine the decision on expanded boundaries?

The maps are attached. There are no areas currently under consideration for inclusion in an expanded MPA in the next 20 years.

The following would be involved in determining whether to expand the MPA boundary in the future:

- *The MPA boundary shall be reviewed by the MPO (in cooperation with the State and public transportation operators) after each Census to determine if existing MPA boundary meets the minimum statutory requirements for new and updated urbanized areas, and shall be adjusted as necessary.*
- *As appropriate, additional adjustments should be made to reflect the most comprehensive boundary to foster an effective planning process that ensures connectivity between modes, reduces access disadvantages experienced by modal systems, and promotes efficient overall transportation investment strategies.*

D. Organization/Structure

1. How are the members chosen for the MPO's executive and technical functions and what jurisdictions do they represent? What are the committee's structures and the responsibilities of each? Are all jurisdictions represented? Are all modes represented?

The member localities and agencies of the HRTPO are as follows:

- *The Cities of Chesapeake, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg; and the Counties of Gloucester, Isle of Wight, James City, and York*
- *The local public transportation operators – the Transportation District Commission of Hampton Roads (TDCHR, also known as Hampton Roads Transit (HRT)) and the Williamsburg Area Transit Authority (WATA)*
- *State transportation agencies – the Virginia Department of Transportation (VDOT), the Virginia Department of Rail and Public Transportation (DRPT), the Virginia Port Authority (VPA), the Virginia Department of Aviation (VDOA)*
- *Federal transportation agencies – the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the Federal Aviation Administration (FAA)*
- *International Airport agencies – Peninsula Airport Commission and Norfolk Airport Authority*

Membership of the HRTPO Board is in accordance with the Bylaws of the Hampton Roads Transportation Planning Organization:

- *Each locality has one voting member and one alternate. The members must be elected officials (city council or county board of supervisors).*
- *Each transit organization has one voting member and one alternate. The member shall be the Executive Director of the transit agency, who appoints the alternate.*
- *Each state transportation agency, excluding the Virginia Department of Aviation, has one voting member and one alternate. The members are designated by the Virginia Secretary of Transportation.*
- *There are four voting members on the HRTPO Board from the Virginia General Assembly – two senators and two delegates. The two senators are appointed by the Senate Rules Committee. The two delegates are appointed by the Speaker of the House.*
- *The HRTPO Board includes non-voting members representing the following entities. The Director of an entity invited as a non-voting member shall appoint the entity's representative.*
 - *Virginia Department of Aviation*
 - *Federal Transit Administration*
 - *Federal Highway Administration*
 - *Federal Aviation Administration*
 - *Chief Administrative Officer of each member locality*
 - *Chair of the Citizen Transportation Advisory Committee*
 - *Co-Chair of the Freight Transportation Advisory Committee*

- Peninsula Airport Commission and Norfolk Airport Authority
- Military liaisons
- CTB members are invited participants on the HRTPO Board

Membership of the Transportation Technical Advisory Committee (TTAC) is in accordance with the Bylaws of the Hampton Roads Transportation Technical Advisory Committee:

- *Each locality has three voting members and two alternates. Locality members are appointed by the chief administrative officer of each locality.*
- *Each transit organization has one voting member and one alternate. The members are appointed by the chief executive officer of the transit organization.*
- *VDOT has three voting members and two alternates. The members are appointed by the Virginia Secretary of Transportation.*
- *DRPT has one voting member and one alternate. The members are appointed by the Virginia Secretary of Transportation.*
- *VPA has one voting member and one alternate. The members are appointed by the Virginia Secretary of Transportation.*
- *The TTAC includes non-voting members representing the following entities. The chief administrative officer of an entity invited as a non-voting member shall appoint the entity's representative to the TTAC.*
 - *Federal Highway Administration*
 - *Federal Transit Administration*
 - *Military liaisons*

Committee structures and responsibilities:

- *The HRTPO Board has the following advisory committees:*
 - *Transportation Advisory Committee (TAC) - composed of the chief administrative officer of each HRTPO member locality and local transit agency, plus representatives from VDOT, the Virginia Department of Rail and Public Transportation (DRPT), the Virginia Port Authority (VPA), FHWA, FTA, and other stakeholders. The TAC meets from time to time to act upon matters referred to it by the HRTPO Board.*
 - *Transportation Technical Advisory Committee (TTAC) - composed of transportation engineers and planners from each HRTPO member locality, plus representatives from the local transit agencies, VDOT, DRPT, VPA, FHWA, FTA, and other stakeholders. The TTAC reviews virtually all items that are to come before the HRTPO Board and provides recommendations on actions to be considered by the HRTPO Board.*
 - *Citizen Transportation Advisory Committee (CTAC) - composed of residents of HRTPO-member localities. CTAC provides citizen input on transportation planning and programming matters.*
 - *Freight Transportation Advisory Committee (FTAC) - composed of people involved in the freight transportation industry. FTAC provides freight-related input on transportation planning and programming matters.*
 - *Legislative Ad-hoc Committee - composed of appointed HRTPO Board members, including representatives from the Virginia General Assembly and elected officials from Hampton Roads localities, plus local legislative liaisons. The mission of the Committee is: to pursue legislative items that have overwhelming support from the HRTPO Board, to educate the General Assembly and other regions of the State regarding the challenges that face a water area such as Hampton Roads, and to optimize the strengths of the region.*
 - *Rail and Public Transportation Task Force - composed of appointed members of the Transportation Technical Advisory Committee, plus representatives from the local transit agencies, railroads, the Virginia Department of Rail and Public Transportation and other stakeholders. The Task Force focuses on matters associated with public transportation and passenger rail.*
- *The TTAC has the following subcommittees:*
 - *Transportation Programming Subcommittee (TPS) – composed of one TTAC voting member or alternate from each locality, one TTAC voting member or alternate each from HRT and WATA, one TTAC voting member or alternate from VPA and DRPT, two TTAC voting members or alternates from VDOT, and a non-voting representative from FHWA. The primary focus of the TPS is project selection and funding related to CMAQ, RSTP, and TAP. In addition, the TPS provides a forum, at the request of the TTAC, for in-depth discussions related to transportation funding issues and programs.*
 - *Long-Range Transportation Plan (LRTP) Subcommittee – composed similar to the TPS, the LRTP Subcommittee focuses on matters related to the LRTP.*

- *Hampton Roads Transportation Operations Subcommittee (HRTO) – composed of staff involved with operations from each of the localities, VDOT, HRT, WATA, and VPA. HRTO is dedicated to improving transportation operations in the region.*
- *TRAFFIX Oversight Subcommittee (TOS) – composed of one TTAC voting member or alternate from each of the localities served by TRAFFIX, two TTAC voting members from VDOT, one TTAC voting member from HRT, and non-voting members from FHWA, DRPT, and military liaisons. The TOS is dedicated to providing commuters with all the services and information they need to choose alternatives to driving alone, thereby saving gas and money, preventing air and water pollution, reducing traffic congestion, and improving the overall quality of life for those living, working, or vacationing in Hampton Roads.*

As described above, all jurisdictions and all modes in the Hampton Roads metropolitan planning area are represented on the HRTPO Board, its advisory committees, and subcommittees (as applicable).

2. Are any implementing agencies not members of the MPO or policy board? Any operators of major modes of transportation not members?

All currently applicable implementing agencies are members of the HRTPO and the HRTPO Board. It should be noted that the HRTPO Board bylaws includes a stipulation that states the Board may extend an invitation to any additional parties deemed necessary and appropriate to become a non-voting member of the Board.

All operators of major modes of transportation are currently members of the HRTPO Board.

3. How is the MPO staff organized and what are their responsibilities?

The organizational chart and information on staff responsibilities are attached.

E. Agreements and Contracts

1. List current agreements or memorandums of understanding (MOU) identifying planning responsibilities established among the MPO, state DOT, transit operators, air quality agencies and any other agencies involved in the planning process. Are agreements final, signed, and in effect? Explain any updates being developed or contemplated and any changes that are planned.

The Metropolitan Planning Agreement for the Hampton Roads Area specifies the joint responsibilities established among the MPO, state DOT, transit operators, air quality agencies, and other agencies involved in the planning process for maintaining the 3-C metropolitan planning and programming process in Hampton Roads. The Agreement was executed on July 15, 2009 and signed by the following:

- *Chair of the HRTPO Board*
- *Virginia Secretary of Transportation*
- *Executive Director of the Transportation District Commission of Hampton Roads (HRT)*
- *Executive Director of the Williamsburg Area Transit Authority*
- *Director of the Virginia Department of Environmental Quality*
- *Executive Director of the HRPDC and HRTPO*

There are no updates being developed or contemplated and no changes planned with respect to the Metropolitan Planning Agreement.

2. Please discuss how you coordinate with other local governments or agencies that impact transportation planning, and whose role may include, transit, safety, security, bicycle/pedestrian land use, zoning and other transportation related roles.

In addition to including local governments, transit agencies, the port, aviation agencies, citizens, private freight interests, and the military (as members of the HRTPO) in every effort we undertake, the HRTPO strives to include other agencies. Examples of how other agencies have been involved include:

- *HRTPO staff met with the president of the Hampton Roads Public Transportation Alliance, at his request, to discuss his ideas concerning the HRTPO's Mode Choices of Millennials.*
- *Via VDOT's Pedestrian and Bicycle Advisory Committee (PABAC), HRTPO staff presented the Signature Paths study to the president of the Tidewater Bicycling Association, a representative of ODU's VMASC, and a representative from the Elizabeth River Trail Committee.*
- *The development of the LRTP is based on a collaborative process involving many regional stakeholders, including: elected officials, regional engineers and planners, representatives from the military, the Port of Virginia, the business community, advocacy groups, and the public. These key stakeholders actively work together to identify, prioritize, and see transportation funding for needed investments.*
- *HRTPO staff provides briefings to city councils, county boards of supervisors, and various planning commissions.*

3. Are there any specific agreements that have been completed or amended since the last review in 2012?

The only agreements related to transportation planning and programming that have been completed or amended since the last review in 2012 are the annual agreements associated with PL, Section 5303, and SPR planning funds.

F. MPO Annual Self Certifications

NOTE: *The HRTPO does not self-certify the planning process on an annual basis. In accordance with 23 CFR 450.334, the HRTPO self-certifies at least every four years, concurrent with the submittal of the entire proposed Transportation Improvement Program (TIP).*

1. What process/procedures are used to self-certify the planning process?

*The HRTPO has documented its self-certification procedures in its **Self-Certification Procedural Guide**, most recently approved by the HRTPO Board in July 2014 in conjunction with the approval of the FY 2015-2018 TIP. This document was among those previously submitted to the Federal Team in preparation for this certification review.*

*The **Guide** includes a list of questions used to ascertain that the HRTPO transportation planning and programming*

processes comply with pertinent laws and regulations. In addition, the **Guide** includes an appendix that enumerates and defines the applicable requirements and an appendix that includes the HRTPO Self-Certification Form.

2. How are the State DOT and other transportation partners involved in the certification process? Is there an opportunity for public comment? If so, how are comments addressed? How is the process documented?

The self-certification form is signed by the Chair of the HRTPO, the Virginia Department of Transportation Hampton Roads District Administrator, and the Director of the Virginia Department of Rail and Public Transportation. This ensures that the State DOT and other transportation partners are involved in the certification process.

*With regard to an opportunity for public comment, the HRTPO Board agenda in which the new TIP was included for final approval also included an item for Certification of the Transportation Planning and Programming Process. The agenda item explained the self-certification, referred to the **Self-Certification Procedural Guide**, and included an HRTPO Board resolution approving the new TIP and the accompanying certification of the transportation planning and programming process. The resolution included language from the Federal regulations on the certification by the State and the MPO. The same agenda included an updated version of the **Self-Certification Procedural Guide** for approval by the HRTPO Board. The **Guide** was updated to correlate with the new TIP. The agenda, along with the new TIP, draft resolution, and updated **Guide**, were made available to the public one week prior to the HRTPO Board meeting. No comments were received.*

If comments had been received, they would have been reported to the HRTPO Board prior to the Board taking action to approval of the certification.

*As previously stated, the HRTPO self-certification process is documented in the **Self-Certification Procedural Guide**, which has been approved by the HRTPO Board.*

3. What educational efforts, background documentation, guidance or supporting documentation is provided to the MPO policy board when the self-Certification is approved? Is the policy board provided with background information and documentation on what is required in the planning process by various laws? When and how?

*As previously stated, the HRTPO self-certification process is documented in the **Self-Certification Procedural Guide**, which has been approved by the HRTPO Board. The **Guide** includes an appendix that enumerates and defines applicable requirements. Items 1 and 2 of that appendix list and briefly explain highway, transit, and air-quality regulations and laws. Items 3 through 10 of that appendix provide information about Title VI of the Civil Rights Act of 1964 and related nondiscrimination statutes.*

G. Long-Range Transportation Plan (LRTP)

1. How are State programs, policies, and processes (such as the State LRTP, HB2, other modal/master plans) integrated into the LRTP development process?

HRTPO staff coordinates closely with State agencies to ensure State programs, policies, and processes are integrated into the LRTP development process. LRTP goals are compared to State LRTP goals to ensure consistency. Also, for the 2040 LRTP, the funding programs of HB2 were incorporated in the funding scenarios used to develop the draft fiscally-constrained list of projects.

2. What is the MPO's process to measure the effectiveness of the Transportation Plan?

The LRTP is developed to meet measurable goals, especially in areas of congestion management, environmental preservation, and equal considerations for all transportation users. For the 2034 LRTP, the plan performance chapter (19) details how the fiscally-constrained LRTP performs. Additionally, the HRTPO manages the ongoing Congestion Management Process in which congestion in the multi-modal, regional transportation system is evaluated and for which improvements are recommended. This information feeds into the update of the LRTP. The HRTPO also conducts performance management in a cyclical process. Refer to <http://hrtpo.org/page/performance-management/> for more information.

3. During the last update of the Transportation Plan, how were the planning assumptions validated?

LRTP planning assumptions are validated as part of the development/update process.

4. How is the disposition of comments and changes in the final Transportation Plan documented, analyzed, and reported when significant oral and written comments are submitted? How much additional time is provided for public review if the "final" document is significantly different from the draft originally made available for public review?

This question is addressed under the Public Involvement section (Section Q).

5. What is the role of the transit operator and how is it involved in the MPO's overall planning and project development process?

As members of the HRTPO, the local transit operators are involved in every aspect of HRTPO planning, analysis, and funding. In addition, HRTPO staff met with HRT staff on 12 Feb 2015 to discuss how HRTPO staff could support HRT's "Connect Hampton Roads" via the HRTPO FY16 UPWP.

In addition to the above, please refer to page 1-3 of 2034 LRTP report for a listing of the stakeholders involved and how the stakeholders were involved in the LRTP development. Public transportation and local agencies serve on the TPO Board, TTAC, and the LRTP Subcommittee, and were involved throughout the plan development and provided inputs on all aspects of the plan.

6. How is the distribution of impacts to different socioeconomic and ethnic minorities identified and measured? How are benefits and burdens across all socioeconomic groups examined in the modeling and planning performed in support of Transportation Plan development?

HRTPO staff developed the Title VI/Environmental Justice Methodology to evaluate candidate projects under consideration for inclusion in the LRTP. Once a fiscally-constrained list of projects is approved, HRTPO staff will further analyze these projects, developing outreach strategies based on the community makeup.

7. Are there any comparisons of Transportation Plans with State conservation plans or maps available? Are there any comparisons of Transportation Plans to inventories of natural or historic resources, available?

As part of the Environmental Mitigation consultation and discussion, environmental agencies around Hampton Roads are consulted regarding the development of the LRTP and are provided maps of the candidate projects under consideration for inclusion in the Plan. Since these environmental agencies are considered the experts of their respective fields, the consultation with their agencies is done so with the intent to compare candidate projects to areas of their field (environmental quality, natural, historic resources, etc.). The details of the consultation and the list of agencies

consulted are provided in pages 13-3 through 13-5 of 2034 LRTP. Additional details on this process are also provided in Appendix B of the 2034 LRTP Technical Appendices.

For additional details on the consultation process for the 2040 LRTP, please refer to the Hampton Roads 2040 Long-Range Transportation Plan: Transportation Challenges and Strategies report, pages 106-108, and in Appendix A of said report.

8. Does the plan have a regional coordination element? If so, does the plan take into account regional/state priorities?

Yes, both the current 2034 LRTP and the 2040 LRTP under development have a regional coordination element. As part of the development process, regional stakeholders (via the LRTP Subcommittee) help guide the LRTP update process as well as help maintain the current LRTP. Other regional stakeholders are also asked to review documents throughout the development process. Also, HRTPO staff works in coordination with regional and State agencies to ensure that regional and state priorities are communicated, considered, and incorporated.

9. How does the plan give emphasis to facilities serving important national and regional transportation functions?

The HRTPO Project Prioritization Tool includes criteria on:

- Regional significance*
- Regional connectivity*
- Access to ports, military facilities, and tourist destinations*
- Connectivity between modes*
- STRAHNET and Roadways Serving the Military*
- Emergency management and hurricane evacuation routes*

In addition, various HRTPO programs, studies, and activities provide relevant data for the decisionmaking process, including:

- Congestion Management Process*
- Military needs studies*
- Bridge studies*
- Safety studies*
- Port and Freight-related studies*

H. Planning Factors

1. Please explain how the agency carries out a continuing, cooperative, and comprehensive transportation planning process, and addresses each of the eight planning factors listed in 23 CFR 450.306.

Continuing

HRTPO conducts continuing processes:

- *The HRTPO Performance Management Process is cyclical and continuing:*
 - *Measure system performance*
 - *Identify and score candidate projects based on expected performance*
 - *Plan and fund highest scoring projects*
 - *Measure project performance*
 - *[Start again, from the top]*
- *Many products—e.g. CMP documents—are updated on a scheduled basis.*
- *Long Range Planning is continuous- when staff completes one plan, it starts on the next.*

Cooperative

The HRTPO cooperates with the following:

- *Via HRTPO voting membership:*
 - *Localities*
 - *Transit Agencies*
 - *Virginia Senate*
 - *Virginia House*
 - *VDOT*
 - *DRPT*
 - *Va. Port Authority*
- *Via HRTPO non-voting membership:*
 - *FHWA*
 - *FTA*
 - *FAA*
 - *Va. Department of Aviation*
 - *Local airports*
 - *Military Liaisons*
 - *Local CTB members*
- *Via HRTPO advisory committees:*
 - *Freight interests (FTAC)*
 - *Interested citizens (CTAC)*
- *Via outreach:*
 - *Diverse citizens (Environmental Justice Roundtable)*
 - *Interested citizens (public comment at meetings, on blogs, and during public review of reports)*

Comprehensive

HRTPO planning, analysis, and funding cover a wide spectrum of:

- *Modes (transit, bike, highway, walk, rail, ride-hailing, etc.)*
- *Types (passenger, freight)*
- *Impacts (safety, congestion, social, environmental, economic, etc.)*
- *Tools (models, literature review, data analysis)*
- *Product types (benchmark studies, reviews, plans, measures, etc.)*

2. How is each of the MAP-21/FAST Act planning factors considered in the planning process?

Via the UPWP, the HRTPO considers the 10 current planning factors, as shown below for the current (FY16) UPWP:

I. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;

- *Under 3.0 Performance Management, the HRTPO is currently preparing “Moving the Economy: How our Transportation System supports Key Economic Sectors”.*
- *“Economic Vitality” is one of three legs in the HRTPO Project Prioritization Tool.*

II. Increase the safety of the transportation system for all motorized and nonmotorized users;

- [*Hampton Roads Regional Safety Study \(2014\)*](#)
- [*Regional Bike and Pedestrian Safety Study \(2016\)*](#)
- [*Roadway Safety*](#) work summary

III. Increase the security of the transportation system for motorized and nonmotorized users;

- [*Prioritizing Highway Projects for Improvement of Evacuation \(2014\)*](#)
- [*Evacuation*](#) work summary

IV. Increase accessibility and mobility of people and freight;

- [*Truck Delay Impacts of Key Planned Highway Projects in Hampton Roads \(2015\)*](#)
- [*Freight*](#) work summary

V. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;

- [*Mode Choices of Millennials \(2015\)*](#)

VI. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;

- [*Transportation Connectivity Gap Analysis \(2016\)*](#)
- [*Economic Assessment of Tolls on Freight Transportation in the Hampton Roads Region \(RSTP, 2015\)*](#)

VII. Promote efficient system management and operation;

- [*Analyzing and Mitigating the Impact of Tolls at the Midtown and Downtown Tunnels \(2015\)*](#)

VIII. Emphasize the preservation of the existing transportation system.

- [*Pavement Performance Measurement in Hampton Roads \(2014\)*](#)

IX. Resilience and Reliability (new for FAST Act)

- [*Hampton Roads Military Transportation Needs Study: Roadways Serving the Military and Sea Level Rise/Storm Surge \(2013\)*](#)
- [*Sea Level Rise and Storm Surge Impacts to Roadways in Hampton Roads \(2016\)*](#)
- [*Sea Level Rise*](#) work summary

X. Travel and Tourism (new for FAST Act)

- [*Moving the Economy- How our Transportation System supports Key Economic Sectors \(2016\)*](#)

I. TIP

The Federal Team is interested in better understanding the process by which TIP projects are selected and prioritized.

1. Describe the TIP project prioritization and selection process.
 - a. How are bicycle, pedestrian, and transit needs addressed in the prioritization process?
 - b. Are there criteria for balancing the number of projects or funds geographically? (e.g., based on county, etc.)
 - c. How do the MPO, the State, and the transit operators collaborate on the development of the TIP?

The HRTPO Project Prioritization Tool is used to help in the prioritization of candidate LRTP projects. Since the LRTP is financially-constrained, projects ultimately selected to be included in the LRTP have been deemed a higher priority than candidate projects that do not make the final list. This makes the LRTP a list of priority projects. TIP projects are drawn from the LRTP based primarily on the basis of which of that list priority projects should be built first – taking into account the funding that is available for the TIP.

*Active and public transportation projects are taken into account, to some extent, in the prioritization of projects for the LRTP, which feeds into project selection for the TIP. In addition, many active and public transportation projects are funded with CMAQ, RSTP, and TAP funds. Such projects undergo prioritization as documented in the **Guide to the HRTPO CMAQ/RSTP Project Selection Process** and the **Guide to the HRTPO TAP Project Selection Process**.*

This year the State implemented the HB2 Project Prioritization Process in response to a new State law that directed the CTB to develop and use a prioritization process to select transportation projects to be funded in the Six-Year Improvement Program. This new prioritization process will have a direct effect on projects that are included in the TIP.

The HRTPO employs no criteria for balancing the number of projects or funds geographically.

Given available funding and drawing from the current LRTP, the HRTPO, state agencies, localities, and transit operators develop a draft list of projects and studies on which activity is expected to occur during the four-year period of the TIP. The draft list of projects takes into account the items mentioned above and is reviewed by the TTAC.

2. Are specific criteria used to determine which projects will be included in the TIP?
 - a. If so, what process was used in developing and weighing these criteria?
 - b. How are these criteria communicated to stakeholders, including the agencies submitting projects?

In accordance with federal regulations, all federally-funded and/or regionally-significant projects with work scheduled during the period of the TIP are included in the TIP.

3. How is public involvement incorporated in the TIP development process?
 - a. How does this involvement affect the content of the TIP?
 - b. When does the public have an opportunity to comment on the TIP and TIP amendments?
 - c. How are significant oral and written comments documented, analyzed, and addressed?
 - d. How much additional time is provided for public review if the "final" document is significantly different from the draft originally made available for public review?
 - e. Is the TIP public forum an annual event?

*The HRTPO public involvement and community outreach process provides for the review of the TIP as it is being developed and as it goes into the HRTPO approval process. Information below provides the procedures for informing and engaging the public and interested parties as detailed in the **HRTPO Public Participation Plan**:*

- *When the draft TIP is ready, the public involvement staff issues a press release regarding public comment opportunities on the draft TIP to the media, posts the opportunity on the HRTPO website, E-Newsletter (via the e-mail distribution list), Facebook page and Twitter feed, and solicits comment from the region. The review period for the draft TIP is 30 days.*
- *In addition, stakeholders, civic groups, community groups and nonprofit organizations throughout the region are notified and provided with opportunities to comment on the draft TIP. They are also provided with links to the HRTPO public comment portal to place on their respective websites and social media sites.*
- *All public comment opportunities are provided in English, Spanish and Tagalog in accordance with the HRTPO Title VI and LEP policies.*

- *HRTPO staff reviews and responds to all public comments received. Comments are also forwarded to state agencies, local jurisdictions, and transit operations, as applicable.*
- *Comments received from the public regarding the proposed TIP, are summarized, analyzed and fully considered in the development of the program.*
- *If the final version of the TIP is significantly different from the draft originally made available for the public, the “final” document is made available for an additional 30-day review period prior to approval by the HRTPO Board.*
- *The HRTPO provides a public review and comment period of no less than 14 days for TIP amendments.*

The HRTPO does not hold an annual TIP public forum.

4. How does HRTPO demonstrate consistency between the prioritization process and the goals and priorities of communities within the metropolitan planning area?

The HRTPO Project Prioritization Process was developed in coordination with the communities within the metropolitan planning area by way of the TTAC, the LRTP Subcommittee, the CTAC, the FTAC, and the HRTPO Board.

5. How does HRTPO ensure that the TIP includes all proposed federally and non-Federally funded regionally significant transportation projects?

The HRTPO coordinates with state transportation agencies, local transit providers, and member localities to ensure that the TIP includes all proposed federally and non-federally funded regionally significant transportation projects.

6. How does the TIP serve as a management tool for implementing the CLRP? Does it reflect policies, investment choices, and priorities identified in the Plan? Does it tie specifically back to the HRTPO Goals? How is its success or lack of success determined?

The majority of TIP projects are drawn directly from the LRTP, therefore the TIP is consistent with the policies, investment choices, and priorities identified in the LRTP as well as the goals of the HRTPO.

The performance of the TIP is monitored by comparing, on a quarterly basis, the expenditures associated with each TIP project to the projects’ phase schedules to help ascertain whether work on projects is progressing satisfactorily. This information is presented quarterly to the TTAC and provided to the HRTPO Board. HRTPO staff coordinates with VDOT, DRPT, and project sponsors to determine the status of projects that appear to be stalled.

7. How do the State, MPO, and transit operators collaborate on the development of the TIP?

The first step in the development of an updated TIP is that VDOT and DRPT provide HRTPO staff with draft lists of projects to be included in the TIP. The draft project lists undergo several reviews:

- *HRTPO staff compares the project lists to the LRTP to ensure consistency and to check that LRTP projects that should be included in the TIP update are included in the project lists.*
- *HRTPO staff compares the project lists to the previous TIP to ensure that projects that should be carried forward from the previous TIP are included in the project lists.*
- *HRTPO staff enlists the localities, transit agencies, and Virginia Port Authority staff to review the project lists to ensure all necessary projects are included and to check for completed or cancelled projects that should not be included in the project lists.*
- *VDOT District staff reviews the project lists.*

Other steps in the development of the TIP involve:

- *VDOT and DRPT provide input for the TIP Financial Plan. HRTPO staff confirms the cost information in the Financial Plan matches cost data for projects in the TIP.*
- *The TTAC reviews the draft TIP.*
- *The HRTPO Board approves the final TIP.*

8. Briefly describe how often TIP modifications occur and what they consist of (type).
 - a. Is there a deadline for modifications? After a certain point are they just incorporated into the TIP for the following year?
 - b. Is a new conformity determination prepared if projects affecting emissions are added or deleted?
 - c. Is there a limit to the number of modifications that the MPO will make? – related to timing, administrative work, emissions modeling if necessary, etc.?

TIP modifications (amendments and administrative modifications) occur on a nearly monthly basis.

*The HRTPO has documented its **TIP Revision Procedures**, which are accessible on the TIP website (www.hrtpotip.org). The TIP website also includes a **TIP Revision Calendar** that specifies specific deadline dates associated with TIP amendment requests. The HRTPO does not currently produce a new TIP each year, but will process TIP revisions right up to when the next full TIP goes into effect.*

The HRTPO is currently designated as an attainment area for all NAAQS, so no conformity determination is required for TIP revisions.

The HRTPO has not set a limit on the number of TIP modifications the MPO will make.

9. Does the HRTPO prepare a regular list of the Annual Listing of Projects?
 - a. Is the list for the preceding year available during the TIP development process?
 - b. It is updated to reflect which projects did have Federal funds obligated in the preceding year?

Yes – the HRTPO title for the document is the Annual Obligation Report (AOR).

The AOR for a federal fiscal year is posted on the HRTPO website until the AOR for the next federal fiscal year is posted. Therefore, the latest AOR is available during the TIP development process.

The AOR includes projects for which the obligation of federal funds was planned and/or actual.

J. Financial Planning and Fiscal Constraint

Financial Planning Process

1. Are the financial planning methods documented in *MPO's 2034 CLRP* still applicable? Please describe any changes in technical methods and assumptions.

In regards to the technical methods for applying fiscal-constraint, the methods used to constrain the 2034 LRTP are still applicable. For the 2034 LRTP, the long-range transportation revenue forecast was developed and provided by VDOT. In addition to traditional funds forecasted by VDOT, a forecast of non-traditional revenue was also determined (including revenue from localities, the Port, the Governor's Omnibus Transportation Funding Package, P3's, and private tolls). The sum of these forecasted revenues was then compared to the total year-of-expenditure project costs for the projects listed in the fiscally-constrained LRTP. Please refer to Chapters 16-17 of the 2034 LRTP for more information on the anticipated revenues for the Plan as well as how projects were selected and fiscally-constrained.

For the 2040 LRTP, the same basic technical methods were applied. Some financial assumptions that are different in the 2040 LRTP are the categorization and distribution of funds as per House Bill 1887 (State of Good Repair, HB2 High-Priority Projects Program, and the HB2 District Grant Program). HRTAC was also established in 2014, creating the need for a new regional partnership between the HRTPO and HRTAC in planning for the advancement of the Regional Priority Projects. Please refer to presentations to the LRTP Subcommittee and TTAC for more information on how the 2040 LRTP Draft Fiscally-Constrained List of Projects was developed.

2. The region's implementing agencies prepare financial information that is integrated by HRTPO for the CLRP and TIP.
 - a. How are the plans of individual agencies coordinated? What role does the MPO and the metropolitan planning process play in ensuring the accuracy, reliability, and consistency of analysis and forecasts of both revenues and expenses for the area?
 - b. What criteria are applied to ensure that forecasts of both revenues and costs are technically sound?

For the TIP, the financial plan is based on the financial plan for the STIP, which is provided by VDOT and DRPT. HRTPO staff confirms that the Proposed Commitments (costs) shown in the financial plan information received from VDOT and DRPT matches the cost estimates per year for the projects in the TIP.

For the LRTP, VDOT prepares the long-range transportation revenue forecast. As part of the development of the forecast, VDOT staff presented assumptions used in the forecast to Transportation Technical Advisory Committee. Also, VDOT staff was always available to respond to additional questions HRTPO staff had concerning the revenue forecast. Regarding the HRTAC long-range revenue forecast, this work was developed by HRTAC Financial Management consultant. HRTPO staff worked with HRTAC and its consultants to ensure some of their financial assumptions regarding long-range revenues were correct. For LRTP project costs, year-of-expenditure project costs were reviewed by HRTPO staff, VDOT staff, and locality staff as part of the Project Prioritization process as well as the fiscal-constraint process.

HRTPO ensures that transportation revenues are either dedicated to or historically used for transportation purposes in the region. For project costs, HRTPO ensures that project costs are expressed in year-of-expenditure in order to properly account for inflation.

3. When amending the MTP or TIP, how is fiscal constraint ensured?

When amending the TIP, fiscal constraint is ensured by checking that one of the following occurs:

- *The change does not involve an increase or decrease in the total cost and funding associated with the TIP. For example, a project to be added to the TIP may be funded by transferring available funds from a project already included in the TIP.*
- *If a change involves an increase in the total cost associated with the TIP, it is accompanied by new funding to cover the increase in cost. For example, projects that are fully funded with HRTF monies have been added to the TIP.*

The LRTP amendment process to accommodate the addition or removal of projects is explained in Chapter 20, page 20-2 of the 2034 LRTP report. Regarding fiscal constraint and amendments, projects can only be amended if funding is identified; when the LRTP is amended, all funding assumptions are reviewed (ex: some HRTA projects falling off when the 2030 LRTP was amended).

Revenues

4. Please explain how projected rates of growth in major revenue sources compare to historic rates of growth.

For the 2040 LRTP currently under development, the Federal revenue forecast (provided in 2013, updated in 2015) is based on the Federal transportation program under MAP-21 and does not consider any potential reduction due to lack of funding, nor likewise any potential increase in transportation funding. In addition, for the long-range Federal forecast, no growth rate is applied (the uncertainty of the Federal transportation budget does not allow for projecting a growing source of funding, and therefore VDOT did not incorporate growth when developing the Federal forecast).

State revenues are also a part of the 2040 long-range transportation forecast. Sources of state revenue include: state general sales and use taxes, sales tax on motor fuel, motor vehicle sales and use taxes, international registration plan, license fees, and recordation taxes. Revenue estimates for these sources are developed by the Virginia Department of Taxation for the current six-year period. For the Fiscal Year 2014-2019 six-year period, the average state revenue growth rate was 5%. For years 2020-2040, an average growth rate of 2.1% (growth rate developed in consultation with the Department of Taxation) was applied to develop the long-range state revenue forecast.

The growth rates described above are similar to the growth rates used to develop the 2034 long-range transportation revenue forecast. Looking back 10 years, growth rates for transportation revenue were higher than the rates being used to forecast today.

5. What are the criteria for determining whether new revenue sources are reasonably expected to be available?

Generally, revenue sources for the LRTP are deemed reasonable if said sources are dedicated to or historically used for transportation purposes. Historically, transportation investments in Hampton Roads have relied on various Federal, state, and local sources. These sources are dependent on gas and sales taxes and therefore fluctuate with the economy. For the 2034 LRTP, traditional Federal and State transportation sources were bleak and as a result, non-traditional sources of revenue (such as local revenues, tolls, public-private partnerships, and special government earmarks) were also used to help fiscally-constrain the LRTP. For a more detailed description on the 2034 LRTP revenue sources, please refer to Chapter 16 of the 2034 LRTP.

Regarding the new HRTF revenue source, this new source was deemed reasonable as it is a source of funds dedicated to transportation investments in Hampton Roads, adopted by the Virginia General Assembly. Also, the revenue sources contributing to HRTF (local sales and fuels taxes) include sources historically used for transportation purposes.

6. How are revenues from motor fuel taxes and other major state and local sources assumed to change over time? What are the projected impacts on projects and programs?

Motor fuel and other state and local sources of revenues are generally dependent on gas and sales taxes and therefore fluctuate with the economy. For the purposes of the LRTP revenue forecast, VDOT develops the long-range forecast utilizing historic and documented growth rates to forecast revenues over the planning horizon of the Plan. For both the current 2034 LRTP and the 2040 LRTP under development, conservative growth rates were used in developing the transportation revenue forecast in order to account for the bleak economic conditions over the past few years.

Lower transportation revenue forecasts result in fewer projects being fiscally-constrained in the LRTP. Potential impacts include unrelieved congestion and decreased mobility and accessibility. Certain transportation programs can also be diminished as a result of lower projected revenues.

As part of the development of the 2040 LRTP, the transportation revenue forecast was revised to reflect the impact of decreased fuel prices (original forecast received December 2013, revised forecast received October 2015).

7. Have new revenue sources been created since the last certification review? Have there been changes in the revenue sources existing since the report was written?

Yes, since the last certification review in 2012, a new revenue source was created for Hampton Roads. In 2013, the Virginia General Assembly adopted House Bill 2313 which established the Hampton Roads Transportation Fund (HRTF). HRTF revenues are comprised of local sales and fuels sales taxes.

Other than the creation of the HRTF, there have not been significant changes in the revenue sources for the current 2034 LRTP. With the establishment of HRTF, the 2034 LRTP was amended to include revenues anticipated over the 2034 planning horizon to fiscally-constrain components of the Regional Priority Projects identified and approved by the HRTPO Board at its October 17, 2013 meeting.

Expenses

9. What types of historical data are used as a basis for preparing conceptual project estimates? How are the data adjusted for time (schedule), location and other project specific conditions?

For the LRTP, estimated project estimates are provided by the submitting locality/agency and/or VDOT. As part of the Project Prioritization process, cost estimates are converted to year-of-expenditure to properly account for inflation and estimated opening years and costs are reviewed by VDOT.

Cost estimates were developed jointly between HRTPO, VDOT, and locality as part of the candidate project submission and prioritization. Costs that were not submitted in YOE were converted to the same. Costs were reviewed periodically throughout process to ensure they were up to date.

10. What procedures are followed to ensure the TIP financial plans are consistent with the STIP?

The financial plan for the TIP is based on the financial plan for the STIP, which is provided by VDOT and DRPT. HRTPO staff confirms that the Proposed Commitments (costs) shown in the financial plan information received from VDOT and DRPT matches the cost estimates per year for the projects in the TIP.

11. How are cost differences between the long-range planning (MTP) conceptual cost estimates and the programming (TIP) conceptual cost estimates reconciled? How and where is this process documented?

Cost estimates used in the LRTP are generally considered to be "planning level" estimates. By the time projects are included in the TIP, they have usually been significantly refined. The differences between the planning level and programming level cost estimates are reconciled via the cyclical nature of the development of the LRTP. In Hampton Roads, once an LRTP is finalized and approved (for example, the 2040 LRTP), work immediately begins on developing the next LRTP (for example, the 2045 LRTP). During the development of that next LRTP, any updates to cost estimates since the previous LRTP are taken into account.

There is no specific HRTPO documentation of this reconciliation process, however, the HRTPO Project Prioritization Process used in the development of the LRTP requires updated cost estimates for all projects. HRTPO staff coordinates with VDOT, DRPT, localities, transit agencies, and other stakeholders to ensure that the most up-to-date cost estimates are used.

12. What triggers an update of an estimate during the long-range planning and programming process?

- a. Are estimates updated on a continuing basis as project development progresses?
- b. Are estimates updated when major design changes occur or through some other triggering mechanism?

Cost estimates in the LRTP are generally planning-level cost estimates which are generally updated as part of the four/five year planning cycle of the LRTP, or as a project advances in planning and design and is incorporated into the TIP.

13. What process(es) is(are) used to estimate operations and maintenance costs for all modes and in all jurisdictions in the metropolitan area? Is the participation by different agencies documented in a formal agreement?

For the TIP:

Federal planning regulations require the TIP to include system-level estimates of revenues that are reasonably expected to be available to adequately cover the estimated costs to operate and maintain Federal-aid highways and public transportation. Activities related to the operations of Federal-aid highways include items such as signage, traffic control devices, signalization, pavement markings, guardrail, lighting, traffic calming devices, etc. Maintenance activities, often referred to as preventive maintenance, have the goal of improving the physical condition of core transportation assets and extending their useful life and include items such as cleaning of drainage facilities, corrosion protection, sign cleaning, roadway resurfacing, bridge deck overlays, joint sealing and replacement, etc. In contrast, ordinary or routine maintenance, which is not eligible for federal funding, are activities that typically do not change the physical condition of an asset.

Highway Systems Operations and Maintenance

Development of the budget for operations and maintenance is driven, in part, by the following performance targets adopted by the Commonwealth Transportation Board (CTB) to guide investment decisions:

- *No less than 82% of interstate pavements rated fair or better*
- *No less than 82% of primary pavements rated fair or better*

- *No less than 92% of bridges and culverts rated not structurally deficient*
- *Maintain condition of secondary pavements*

VDOT uses an asset management methodology and generally accepted engineering principles and business practices to:

- *Identify and prioritize operations and maintenance needs*
- *Identify performance standards to determine those needs*
- *Provide funding to meet those needs*

Each year, VDOT reports to the CTB the status of progress made in achieving the performance standards. Using this information, the CTB establishes goals and sets priorities for the upcoming fiscal year. A team consisting of program managers from the VDOT Districts and VDOT Central Office develops budget scenarios for achieving the CTB goals. These scenarios are reviewed by district maintenance managers and regional operations directors, who provide feedback so that detailed budgets can be developed. The final operations and maintenance budget is then approved by the VDOT Chief Engineer, VDOT Commissioner, and the CTB.

Highway operations and maintenance is primarily accounted for in three Project Groups in the TIP – Preventive Maintenance and System Preservation, Preventative Maintenance for Bridges, and Traffic and Safety Operations. A description of the maintenance activities covered by these project groups is included in Section XII of the FY 2015-2018 TIP. When the TIP is developed, specific maintenance activities have not yet been identified, so a lump sum is set-aside in each project group. The obligation table for each of the maintenance project groups includes a VDOT note stating that funding will be obligated as projects are identified.

Transit Systems Operations and Maintenance

For transit systems operations and maintenance, each transit grantee conducts its own analysis, with assistance from the Virginia Department of Rail and Public Transportation (DRPT). Federal Transit Administration (FTA) guidelines on the useful service life of transit vehicles direct the schedule with which transit vehicles are replaced throughout the Commonwealth.

There is no formal agreement documenting the participation of different agencies in this process. However, the process is documented in the Financial Plan section of the TIP.

For the LRTP

As part of the LRTP forecast developed and provided by VDOT, anticipated maintenance needs over the planning horizon of the Plan are forecasted. Since maintaining existing roadways is a Federal and State mandated priority, once maintenance needs are identified, funds to cover these anticipated maintenance costs during the planning period of the LRTP must be reserved before new transportation projects can be considered. VDOT's state maintenance program and maintenance payments to localities use an average growth rate to forecast maintenance needs throughout the Commonwealth. The LRTP forecast distributes maintenance funds to VDOT construction districts based on the district's average share of the state total and then to the MPO's based on population.

For the 2034 LRTP, approximately \$12 Billion was reserved for maintenance of the existing transportation system. For the 2040 LRTP, assuming current trends for maintenance needs continue, maintenance of the region's transportation system is estimated to be about \$12 billion between now and the year 2040.

14. How is an "adequate" level of O&M determined?
 - a. Are needs derived from a desired level of service or rating of asset condition and how will these be met with expected funding level?
 - b. How many of the agencies involved have an asset management system?

For the LRTP, Operation and Maintenance estimates for the planning horizon of the Plan are provided by VDOT. VDOT's state maintenance program and maintenance payments to localities use an average growth rate to forecast maintenance needs throughout the Commonwealth. The LRTP forecast distributes maintenance funds to VDOT construction districts based on the district's average share of the state total and then to the MPO's based on population.

15. Are levels of service or ratings of facility condition expected for a given funding level communicated to the public? How?

The HRTPO Project Prioritization Tool is an objective and comprehensive methodology that evaluates candidate transportation projects based on three components (Project Utility, Economic Vitality, and Project Viability), using over thirty data inputs – level of service is one of these data inputs. Planning level funding allocations is based on the overall Project Prioritization score.

16. What triggers an update of an O&M estimate during the long-range planning and programming process? Are estimates updated on a periodic basis, when system condition and performance changes occur or through some other triggering mechanism?

For the TIP, see the response to Question 13 above.

For the LRTP, see the response to Question 14 above.

Impacts of Financial Constraint

17. Have financial problems of the state or other jurisdictions or organizations affected the financing of transportation projects and programs? If so, how has this been reflected in the TIP and updates of the CLRPP

With regard to the TIP it appears the financial problems are primarily associated with federal funding. The state, localities, and other organizations appear to have the funds required to match federal funds, but the amount of federal funding has been flat for several years. The effect is reflected in the number of projects funded in the TIP.

Examples of the federal funding issue can be seen in CMAQ and RSTP funds coming to Hampton Roads. The estimated CMAQ marks provided in 2009 ranged from \$16.7M in 2009 to \$18.1M in 2014; while the estimated CMAQ marks provided in 2016 ranged from \$14.3M in 2016 to \$14.2M in 2021. The estimated RSTP marks provided in 2009 ranged from \$28.5M in 2009 to \$30.1M in 2014; while the estimated RSTP marks provided in 2016 ranged from \$27.0M in 2016 to \$26.9M in 2021.

The bleak transportation forecast over the past several years has significantly limited the ability to fiscally-constrain needed transportation projects. In response to this bleak forecast, the General Assembly created the HRTF to help fund needed major transportation projects in our region. The HRTF has allowed the region to include several of the identified Regional Priority Projects in the fiscally-constrained LRTP; however, not all phases of the Regional Priority Projects can be financed and built before the horizon of our next LRTP, 2040.

The lack of dedicated transit funding limits the ability to fiscally-constrain major transit fixed guideway projects in the LRTP.

18. Have projected impacts of financial constraint affected the performance of the transportation system, e.g. traffic congestion? Are the public transit “ridership constraints” resulting from revenue shortfalls analyzed through the Congestion Management Process?

The projected performance of the regional transportation system is impacted by financial constraint. As an example, about \$7 billion was available for new construction projects in the Hampton Roads 2034 LRTP. HRTPO analyzed the impact of this funding level on the 2034 roadway network and determined that 31% of the network’s lane-miles would be severely congested during the PM peak period. Additional funding in the 2040 LRTP, particularly from the Hampton Roads Transportation Fund, will likely improve the performance of the regional transportation system but still not meet all of the documented needs to further reduce congestion in the region.

Transit ridership levels are collected and documented in the annual State of Transportation in Hampton Roads report. Public transportation is also documented in the Congestion Mitigation Strategies section of the CMP document, including a description of transit agencies in the region, current public transportation modes, transit routes, ongoing transit extension studies, and the regional Transit Vision Plan. The impacts of revenue shortfalls on public transportation ridership have not been analyzed as part of the CMP. HRTPO, however, has begun a Public Transit Benchmarking Study that will be completed in Fiscal Year 2017.

19. Are alternative strategies considered for addressing financial shortfalls through the planning process?
- Are alternatives documented?
 - Are the impacts of different levels of funding identified and documented, in terms of investments in physical transportation system improvements and resulting performance?

As part of the 2040 LRTP update, funding scenarios were presented and reviewed by the LRTP Subcommittee. These funding scenarios presented established highway to transit funding splits of certain forecasted revenues as well as combinations of candidate projects that could be fiscally-constrained based on how forecasted funds were distributed. These funding scenarios are documented as part of the LRTP Subcommittee meeting archives and will be included in

the 2040 LRTP funding plan report.

The resulting performance of the package of projects that make up the LRTP are documented in chapter 19 of the 2034 LRTP, and will be documented in the 2040 LRTP plan performance report.

20. Have financial planning and the impacts of fiscal constraint been addressed through the public participation process?

Yes

K. Unified Planning Work Program (UPWP)

1. How do the activities in the UPWP relate to the goals and priorities identified in the State Transportation Plan?

The activities in the UPWP primarily relate to the goals and priorities of the HRTPO. However, a comparison of the goals identified in the State Transportation Plan (VTrans2035) below to the goals of the HRTPO LRTP listed under Question 2 below, show that the goals of the two plans are very similar. Please see response under Question 2 for how activities in the UPWP relate to the goals of both plans.

The goals listed in VTrans2035 are:

- a. Safety and Security – to provide a safe and secure transportation system*
- b. System Maintenance and Preservation – to preserve and maintain the condition of the existing transportation system*
- c. Mobility, Connectivity, and Accessibility – to facilitate the easy movement of people and goods, improve interconnectivity of regions and activity centers, and provide access to different modes of transportation*
- d. Environmental Stewardship – to protect the environment and improve the quality of life for Virginians*
- e. Economic Vitality – to provide a transportation system that supports economic prosperity*
- f. Coordination of Transportation and Land Use – to promote livable communities and reduce transportation costs by facilitating the coordination of transportation and land use*
- g. Program Delivery – to achieve excellence in the execution of programs and delivery of service*

2. Discuss with examples how the activities in the UPWP relate to the goals and priorities identified in the CLRP.

The goals listed in the HRTPO LRTP are:

- a. Support the economic vitality of the metropolitan area, enabling global competitiveness, productivity, and efficiency*
- b. Increase the safety of the transportation system for all users, including minimizing conflicts between motorized and non-motorized modes*
- c. Ensure the security of the region's transportation infrastructure and its users*
- d. Protect and enhance the environment, promote energy conservation, and improve the quality of life*
- e. Consider the impact of transportation investments on the environment*
- f. Promote compatibility between transportation improvements and planned land use and economic development patterns*
- g. Increase accessibility and mobility of people and goods*
- h. Provide a variety of transportation options that accommodates all users*
- i. Increase the coordination of the transportation system, across and between modes, for people and goods*
- j. Promote an efficient and reliable regional transportation system*
- k. Preserve and maintain the existing transportation system*
- l. Engage a diverse public in the development of the region's transportation system*
- m. Continue to work toward finding dedicated and sustainable revenue sources for transportation to close the funding gap*

The HRTPO Project Prioritization Tool, included as a work element under UPWP Task 1.0, accounts for many of the LRTP goals listed above. The Tool evaluates transportation projects based on three components: Project Utility, Project Viability, and Economic Vitality. Project Utility considers a project's ability to solve an existing transportation issue, which could be correlated to congestion, safety, infrastructure condition, or ridership. Project Viability is related to the level of readiness of a project to be constructed based on available funding and completion of regulatory documentation. Economic Vitality considers a project's ability to impact regional economic growth through increased capacity and/or increased opportunity.

Other activities in the UPWP that relate to the goals and priorities of the HRTPO LRTP include:

- *Improving integration of multimodal transportation planning in LRTP process (Task 1.0)*
- *Improving integration of performance management in the LRTP process (Task 1.0)*
- *Improving integration of Title VI and Environmental Justice methodology in the LRTP process (Task 1.0)*
- *CMAQ and RSTP Project Selection Process (Task 2.0)*
- *Transportation Alternatives Program Project Selection Process (Task 2.0)*
- *Performance Management task (Task 3.0)*
- *Public Participation task (Task 4.0)*
- *Regional Freight Planning task (Task 6.0)*
- *Safety and Security Planning task (Task 7.0)*
- *Multimodal Mobility task (Task 8.0)*
 - *Regional Public Transit Planning*
 - *Transportation Connectivity Gap Analysis*
 - *On-Demand Ride Services (Ridesourcing)*
 - *Complete Streets*
- *Special Studies, including:*
 - *Economic Benefits of Building Multimodal Signature Paths in Hampton Roads (FY 2016)*
 - *Hampton Roads Active Transportation Plan (FY 2017)*
 - *Candidates for Conversion of One-Way Streets in Hampton Roads to Two-Way (FY 2017)*
 - *Military Needs Study Update (FY 2017)*
 - *Regional and Local Planning Implications of Connected and Automated Vehicles (FY 2017)*
- *TDCHR Performance Monitoring and Evaluation (Task 11.1)*
- *WATA Performance Monitoring and Evaluation (Task 11.2)*
- *TDCHR Feasibility/Corridor Studies (Task 11.3)*
- *Regional Transportation Demand Management (TDM) Program (TRAFFIX) (Task 11.5)*
- *TDCHR Public Involvement/Public Information/Publications (Task 11.7)*
- *TDCHR Transit Development Plan (Task 11.8)*

3. In the current UPWP, are all Federal fiscal resources budgeted that are available for planning? Are there ongoing issues concerning over- or under-budgeting Federal-planning funds? How are these issues being addressed?

Yes. No. Not applicable.

4. How are Federal Funds and expenditures monitored in your organization?

Each month, the expenditure report for the month is compared to the work elements of each UPWP task to ensure that funds are being expended in line with the accomplishment and schedule of applicable work.

5. Discuss with examples how the UPWP is used as a management tool for the MPO and its transportation activities.

The HRTPO UPWP describes the transportation planning work and associated funding for the Hampton Roads metropolitan planning area. Each task in the UPWP describes the work to be performed, who will perform the work (HRTPO, transit agency, consultant, etc.), the schedule for completing the work, resulting end products, and the budget and source of funding for the task.

The description of work, schedule, and budget information make it possible to use the UPWP as a management tool for the MPO and its transportation activities. The format of the UPWP makes it easy to track the progress on task work elements and end products when compared to the proposed schedule. Adjustments to the schedule may be made as necessary to adapt to changes in priorities throughout the fiscal year. Monthly expenditure information is compared to task budgets in the UPWP to help ensure project expenditures are in-line with the accomplishments of task work elements.

HRTPO project managers review the proposed schedules related to tasks with respect to staffing availability and make necessary adjustments to ensure that staffing supply and demand match up throughout the fiscal year.

6. How are the State, public transit agencies and MPO subcommittees involved in UPWP development? What about the role of freight, nonmotorized transportation, bicycles, pedestrians, and other modal interests?

Early in the development of the UPWP, HRTPO staff presents to the TTAC and the HRTPO Board the proposed planning priorities for the next UPWP. In addition, HRTPO staff solicits input from the TTAC and FTAC on possible tasks and activities for the next UPWP. Comments are solicited on the planning priorities.

The draft UPWP is presented and made available for public review. Comments area solicited on the draft UPWP.

All comments received are acknowledged. In addition, the comments, along with responses by HRTPO staff regarding how the comments were addressed in the final document, are included in the appendix of the UPWP.

All of the entities mentioned in the first question are involved primarily via the TTAC. The FTAC typically provides input related to freight, while the other modal interests mentioned in the second question are primarily taken into account via HRTPO staff involvement in non-HRTPO committees or groups such as the Pedestrian and Bicycle Advisory Committee (PABAC) and the South Hampton Roads Trail Steering Committee.

7. How are UPWP activities developed, selected, prioritized?

HRTPO senior staff develops the proposed UPWP tasks and activities based on input received from the TTAC, FTAC, HRTPO Board, and the public. Taking into account staffing and funding availability, HRTPO senior staff selects a set of activities to undertake during the next fiscal year. The activities are fully described, including schedules and budgets, in the draft UPWP that undergoes review by the TTAC, FTAC, HRTPO Board, and the public.

8. Which MPO partners review the draft and final UPWP? How are comments elicited and addressed?

The draft UPWP is presented to the TTAC and made available for public review. In addition, other HRTPO advisory committees are notified of the availability of the UPWP for review and comments are solicited.

All comments received are acknowledged and included in the appendix of the UPWP with accompanying remarks by HRTPO staff as to how the comments were addressed in the final UPWP.

9. How often are modifications made to UPWP? What kind?

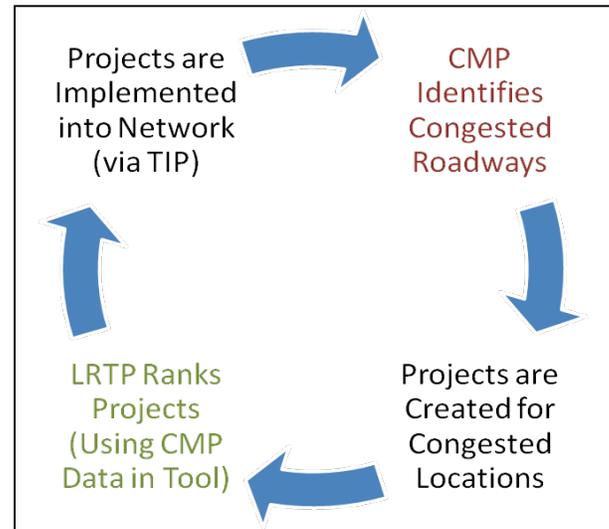
The UPWP is typically modified two to three times per fiscal year. Most often, the modifications involve budget adjustments to account for updated funding information (PL and/or Section 5303).

L. Congestion Management Process (CMP)

1. Explain how CMP components lead to the development of programs and projects contained in the CLRP and TIP. How are these activities supported in the UPWP?

The Hampton Roads CMP is an on-going systematic process for managing congestion that provides information and analysis on multimodal transportation system performance and on strategies to alleviate congestion and enhance the mobility of persons and goods regionwide.

Federal regulations require that CMPs be implemented as a continuous part of the metropolitan planning process, which also includes the Long-Range Transportation Plan (LRTP), the Transportation Improvement Program (TIP), and the Unified Planning Work Program (UPWP). The CMP is the first step in addressing regional congestion as it monitors the regional roadway network, identifies congestion, and develops strategies to address congestion. The Hampton Roads CMP includes a ranking of roadway corridors based on current congestion levels and other performance measures/results from other HRTPO studies (such as freight, military, and safety) to determine where congestion relief projects are most needed. The CMP includes a number of specific modal, TDM, operational, and capacity improvements for these corridors that were developed in consultation with local planners and engineers. Local planners, engineers, the public, and decision makers use the CMP results and recommended congestion mitigation strategies to develop candidate projects for congested areas.



Steps for Integrating CMP into the Planning Process

Once candidate projects are developed, data from the CMP and other HRTPO studies are input into the LRTP Project Prioritization Tool in order to assist in the scoring and ranking of projects. The CMP is also used to provide volume and congestion data into the RSTP prioritization scoring methodology and the calculation of emissions used in selecting CMAQ projects for the TIP. Once the highest priority projects are programmed via the TIP, the process begins again.

2. Please list specific strategies that have been implemented as a result of the Congestion Management Process. How does the HRTPO assess previously implemented strategies?

Several of the CMP strategies recommended for congested corridors in the 2010 CMP Update document are being implemented. For example:

- *For congestion at the Downtown Tunnel, the CMP Update recommended “add tolls/congestion pricing to the Downtown Tunnel” and “construct and/or improve alternate routes” (p. 57), and the State has signed an agreement with a private corporation for the construction of a new tube at the Midtown Tunnel and the tolling of the Downtown Tunnel. Downtown Tunnel upgrades are complete and construction is ongoing at the Midtown Tunnel and MLK extension.*
- *For congestion on Jefferson Avenue, the CMP Update recommended “complete Middle Ground Boulevard extension” (p. 79), and that project has been completed.*
- *For several of the congested corridors, the CMP Update recommends “continue to promote TDM strategies”, and the HRTPO continues to fund TRAFFIX at \$1 million per year.*

Several of the CMP strategies recommended for congested corridors in the 2014 CMP Update document are being implemented. For example:

- *For congestion at the HRBT and MMBT, the CMP recommended “add additional capacity across the Hampton Roads Harbor” (p. 83, 87), and plans are moving forward using the Hampton Roads Transportation Fund (HRTF) with the first step of completing the Hampton Roads Crossing Study SEIS.*
- *For I-64 (Nor/VB) between I-564 and Indian River Road, the CMP recommended “converting HOV lanes to HOT lanes” (p. 89) and VDOT is currently studying this potential conversion. The CMP recommended “improving the*

interchange of I-64 and I-264” and Phase 1 of the I-64/I-264 interchange improvements is fully funded using HRTF.

- For Congested Corridor – Arterial #2 (Indian River Road), the CMP recommended improving “the intersection of Indian River Rd and Kempsville Rd”, and this project is underway and included in the SYIP/TIP. The CMP recommended “widen Indian River Road” and this project is included in the LRTP.
- For Congested Corridor – Arterial #3 (Northampton Blvd), the CMP recommended arterial improvements along Northampton Blvd, and the Cities of Norfolk and Virginia Beach are working on local projects to improve the capacity and operation along the corridor.
- For Congested Corridor – Arterial #10 (Centerville TnPk), the CMP recommended “performing a signal warrant analysis at the Butts Station Rd intersection”, and the City of Chesapeake has included this project in the TIP and plans to add a signal at this location.
- For Congested Corridor – Arterial #12 (George Washington Hwy), the CMP recommended “replacing the 2-lane Deep Creek Bridge”, and the City of Chesapeake announced on February 10, 2016 that this 5-lane bridge replacement project has been fully funded.

We evaluate the effectiveness of individual projects and strategies in different ways, as follows:

- We evaluated the Norfolk ATMS in Norfolk Advanced Traffic Management System Evaluation Study (June 2002).
- We evaluated the post-implementation effectiveness of twenty-four (24) CMAQ projects in Hampton Roads Congestion Mitigation and Air Quality Improvement Program Post Evaluation Study (Feb. 2003).
- We continuously evaluate the effectiveness of the \$1 million annual grant of CMAQ/RSTP dollars to TRAFFIX by supporting the TRAFFIX Oversight Subcommittee (TOS) of TTAC. Although TRAFFIX personnel serve as staff for the subcommittee, HRTPO staff ensures that the subcommittee meets regularly, that its information is available to the public on the HRTPO website, and that the director of TRAFFIX reports TRAFFIX performance measures to the TOS, TTAC, and HRTPO Board. In FY12, HRTPO staff assisted TRAFFIX with the first TRAFFIX Annual Report. Since then, TRAFFIX annually produces this report containing various performance measures.
- In June 2015, we produced a before and after evaluation study called Analyzing and Mitigating the Impact of Tolls at the Midtown and Downtown Tunnels.
- In June 2015, we performed a study called Truck Delay Impacts of Key Planned Highway Projects in Hampton Roads. This study measured future truck delays for the region and by corridor in the next 20 years for six key planned highway projects.

The HRTPO produces several reports on a regular basis to monitor and assess previously implemented strategies:

- Hampton Roads CMP Report updates – the HRTPO produces a stand-alone CMP document about every 4-5 years on the same cycle as the LRTP. At the beginning of each new CMP cycle, the effectiveness of past efforts is evaluated, and adjustments are made for the current effort.
- CMP Volumes, Speeds, and Congestion on Major Roadways in Hampton Roads – HRTPO has annually produced a document detailing volumes on regional roadways since 2006. Starting in 2012, this document was updated to also include average speeds and congestion levels on these regional roadways.
- The State of Transportation in Hampton Roads – an annual report with various performance measures in the following categories: air travel, rail travel, port data, roadway travel, and transportation financing. Historical trends and new developments are highlighted, and comparisons are made between Hampton Roads and similar large metropolitan areas.
- For years, HRTPO has measured the performance of the transportation system via system-wide measures of congestion, condition, and safety. In 2011, we added more measures in establishing our Hampton Roads Regional Performance Measures (RPMs). In early 2012 we cooperatively developed draft targets for these measures. Since FY12, the HRTPO has produced a report for RPMs each year. This effort will be updated to include the MAP-21 performance measures as these measures are finalized.
- As a part of the CMP, the HRTPO produced the Hampton Roads Military Transportation Needs Study – Highway Network Analysis (September 2011). This study analyzed “Roadways serving the military” to determine deficient locations, such as congested segments, deficient bridges, and inadequate geometrics. The study made numerous recommendations to address existing deficiencies and to accommodate future military travel needs, including revisions to current STRAHNET designations, increasing vertical clearance of tunnels, expanding the width of highway lanes to accommodate military vehicles, rehabilitating or replacing structurally deficient bridges, extending light rail transit to Naval Station Norfolk and high-speed passenger rail service to Washington, D.C. The HRTPO plans to update this part of the study in FY17 and on a regular 4-5 year cycle.
- The HRTPO plans on updating the Hampton Roads Regional Safety Study on a regular 4-5 year cycle with the latest reports being completed in October 2013 and July 2014. Safety is a component within CMP. The latest

reports examined general crash data and trends, Interstate and Intersection Crash Findings, and Crash Analysis and Countermeasures.

- *The HRTPO staff developed a method of measuring the performance of individual localities in providing accessibility to non-drivers. Staff applied this method to Hampton Roads in Non-Driver Opportunity Analysis (June 2009). In 2011, the Transportation Research Board (TRB) published this HRTPO method as Performance Measures for Coordination of Transportation and Land Use to Improve Nondriver Accessibility in its peer-reviewed Transportation Research Record (No. 2242) enabling it to become a model for metro areas around the U.S.*

3. Does the HRTPO have a stand-alone CMP document?

Yes. The document is produced on the same cycle (4-5 years) as the LRTP process. The current Hampton Roads CMP document was approved by the HRTPO Policy Board in October 2014. The document is available at <http://hrtpo.org/uploads/docs/CMP%20Report%20Final%20Version.pdf>.

M. Intelligent Transportation System (ITS)

1. How is the regional ITS architecture being used in the transportation planning process?

The ITS architecture is used to assist with regional ITS planning and project development by determining what ITS infrastructure and relationships currently exist today and what is programmed, planned, or included in the vision for the future.

The Hampton Roads ITS architecture is updated on a recurring basis, with the most recent update being completed in 2014 (available at <http://local.iteris.com/viriniaitsarchitecture/architectures/eastern/index.html>.) The process of regularly updating the regional ITS architecture gets regional stakeholders to work together to discuss and generate ideas of what the future of the regional system should look like.

2. If MPO/TMA has adopted the regional ITS architecture, how are changes being documented and processed?

The procedure for amending the Hampton Roads ITS architecture is documented in the “Virginia Eastern Region ITS Architecture Maintenance Plan”, which is available at <http://local.iteris.com/viriniaitsarchitecture/architectures/eastern/docs/ERArchMaintenancePlanV2.0%282014-05-31%29.pdf>. Under the procedure, the proposed change is submitted by the stakeholder to TPO staff using the Project Architecture Information Form. After reviewing the proposed change, TPO staff then brings the proposed ITS architecture amendment to the Hampton Roads Transportation Operations (HRTO) Subcommittee for review and approval. Once approved by the subcommittee, TPO staff will update the Architecture Change Log and provide the update to VDOT’s consultant.

In reality, most changes to the ITS architecture occur during regular updates to the plan, the most recent of which occurred in 2014. However, there have been amendments to the ITS architecture approved by the HRTO Subcommittee, such as the Norfolk Light Rail system.

3. How are ITS activities coordinated in the MPO/TMA? Discuss current and future ITS efforts, activities, and plans.

Most ITS planning activities in the TMA are coordinated through the Hampton Roads Transportation Operations (HRTO) Subcommittee. The HRTO Subcommittee, which is a subcommittee of the HRTPO Transportation Technical Advisory Committee (TTAC), is tasked with serving as a forum for discussing methods members can use to improve traffic operations in their localities and agencies, assisting in the development of the regional ITS Strategic Plan and the regional ITS architecture, and serving as an advisory subcommittee to TTAC on operational issues. Members of the HRTO Subcommittee include transportation professionals from Hampton Roads jurisdictions, VDOT, local transit agencies, the Virginia Port Authority, and other invited participants, such as local police and fire/EMS personnel.

The HRTO Subcommittee has completed many ITS and operations efforts in recent years, including creating a Regional Concept of Transportation Operations (RCTO), creating regional standards for Intelligent Transportation System (ITS) technologies, assisting with updates to the regional ITS architecture, endorsing changes to VDOT’s hurricane evacuation traffic control plan, and examining improvements to intersections to alleviate congestion.

Efforts that are currently underway include producing a regional plan for emergency vehicle preemption and updating the Hampton Roads ITS Strategic Plan. The development of the update to the Hampton Roads ITS Strategic Plan is being funded through RSTP funds appropriated by the HRTPO Board. The updated plan will not be a static plan like previous Hampton Roads ITS Strategic Plans but will instead be a regional Operations Strategy, which will provide more of a dynamic plan that will detail a recurring series of planning efforts.

4. What is/has been the MPO’s role and involvement with the development and maintenance of the regional ITS architecture? (23CFR 940.9)? Who are the stakeholders in this process?

The MPO, primarily through the HRTO Subcommittee, is heavily involved in the development and maintenance of the ITS architecture. As mentioned above, HRTPO staff is responsible for handling changes to the ITS architecture, which must be approved by the HRTO Subcommittee. HRTPO staff and the HRTO Subcommittee are also heavily involved in the regular updates to the plan, including organizing, hosting, and participating in regional ITS architecture

workshops, meeting with VDOT's consultant, reviewing and providing comments on the draft ITS architecture, etc.

There is a wide range of stakeholders involved in ITS architecture updates, most of which are members of the HRTTO Subcommittee. This includes transportation professionals from Hampton Roads jurisdictions, VDOT, local transit agencies, the Virginia Port Authority, and local police and fire/EMS personnel. Other stakeholders involved in the ITS architecture updates have included staff from the military, local universities, Elizabeth River Tunnels (ERT), and the Chesapeake Bay Bridge-Tunnel.

5. Who maintains the regional ITS architecture in the region? Who is/will be responsible for ensuring that all future ITS projects are consistent with the regional ITS architecture? Is maintenance of the regional ITS architecture included as an item within the UPWP?

The regional ITS architecture is updated on a regular basis by VDOT's consultant, with the assistance of HRTPO staff, the HRTTO Subcommittee, and other regional and statewide stakeholders. Changes to the ITS architecture are handled as described under Question #2. HRTPO staff, the HRTTO Subcommittee, and VDOT's consultant all are responsible for ensuring that future ITS projects are consistent with the regional ITS architecture. Maintenance of the regional ITS architecture is included in the FY 2016 UPWP under Task 9.3 - Regional Operations Planning. In the draft FY 2017 UPWP, this maintenance is moved to Task 9.1 - Technical Support, Research, and Coordination.

6. What is the MPO's involvement with other ITS organizations in the region? What types of public outreach activities has the MPO facilitated with respect to ITS?

HRTPO staff works with other ITS stakeholders on a regular basis. This includes HRTPO's HRTTO Subcommittee, participation on the RCTO Subcommittee, updates to the ITS architecture, and updates to the ITS Strategic Plan/Operations Strategy as described above. HRTPO staff also works with these stakeholders on other regional planning efforts such as the LRTP, CMP, etc.

7. How is the planning/consideration of ITS being mainstreamed and incorporated into the overall planning process? (LRTP, TIP, UPWP)

Much of the regional ITS and operations planning is incorporated into the regional planning process through the HRTTO Subcommittee and through updates to the ITS architecture and ITS Strategic Plan/Operations Strategy as mentioned above. In addition, ITS and operational improvements are included in the CMP as part of the congestion mitigation "toolbox". The CMP document details a number of "CMP Congested Corridors", which are the most congested corridors in the region based on a number of congested-related measures, as well as other metrics. A number of potential congestion mitigation strategies are detailed for each of these corridors, including ITS and operations strategies.

In terms of transportation programming, ITS and operations are included as its own project type in the regional RSTP project selection process. Candidate RSTP projects are scored and ranked based on a number of measures. For ITS and operations projects, these measures include improving traffic flow, reducing the number or severity of crashes, improving service capacity or incident management, addressing the mobility or accessibility needs, improving the linkage and communications among various operating agencies, and whether the project is compliant with the regional ITS Strategic Plan.

In terms of the LRTP, funding is set aside for projects not typically individually listed in an LRTP, such as safety projects, widening of collector/local roadways, and regular bus routes. ITS and operations projects, such as signal timing improvement projects, ITS projects, and turn lanes, are also included in this set aside. There is also a component of the Project Prioritization Tool designed to evaluate ITS and operations types of projects. However, to date, HRTPO has not used this prioritization component in the development of the metropolitan LRTP since these types of projects aren't individually listed. It has been used to evaluate projects in the HRTPO Rural LRTP.

N. Travel Demand Forecasting and Models Development

1. Describe the travel demand forecast model the MPO uses for its transportation planning process. When (in what year) was the current set of travel models last revised (e.g., new variables, new model algorithms, recalibrated using new data)?

In 2013, HRTPO received an updated and improved regional travel demand model from VDOT. This new Hampton Roads regional travel demand model represents an advanced practice four-step forecasting model used to support air quality analysis and project planning in the Hampton Roads region. The model has been enhanced to better reflect the transportation network with a variety of improvements to enhance its ability to forecast regional travel demand. Major improvements to the model include: a more robust and detailed highway network, improved and updated transit networks, more transparent transit modules (included coordination with HRT), full time-of-day modeling, representing four time periods (AM Peak, Midday, PM Peak, and Night), refined trip generation and distribution models built on the 2009 National Household Travel Survey, enhanced toll procedures, new heavy truck model, and a new feedback loop to improve highway assignment. For a full description of model improvements, please see pages 14-15 of The Hampton Roads Model Methodology Report Version 1.0.

2. How was the model calibrated and set (e.g., local home interview survey, national surveys [NHTS, CTPP], models “borrowed” from another urban area)? How current is the data source?

The current “base year” of the regional travel demand model is 2009. The model has been calibrated and validated to the standards defined in the VDOT’s Travel Demand Modeling Policies and Procedures Manual (http://www.virginiadot.org/projects/resources/vtm/vtm_policy_manual.pdf).

All four steps of the travel demand model were calibrated: trip generation, trip distribution (including friction factors), mode choice procedures, and highway and transit assignments. The truck modeling components were also validated.

The 2009 National Household Travel Survey (NHTS) Virginia Add-On, transit survey in the form of Comprehensive Operations Analysis surveys supplemented by additional surveys done for the Virginia Beach Fixed-Guideway project, the 2000 Census Transportation Planning Package (CTPP) Journey-To-Work survey, and 2010 INRIX data were all used in the development of the Hampton Roads current travel demand model (see Hampton Roads Model Methodology Report, section 2.6 Travel Surveys and Other Observed Data).

Trip attraction rates for Internal-Internal trips are determined from the NHTS dataset. Internal-External and External-Internal trips are estimated using relationships derived from other models (eg: Allentown, PA, Baltimore, MD, and Atlanta, GA) and data on external station counts

For a full description of model calibration and validation, please refer to The Hampton Roads Model Methodology Report Version 1.0.

3. Briefly describe how non-home-based travel (e.g., freight, commercial services, through traffic, tourists) and transit trips are modeled.

The Hampton Roads 2009 travel demand model divides non-home based trips into two categories: Non-Home-Based Work (NHBW) and Non-Home-Based Other (NHBO). NHBW trips are where neither end of the trip is the traveler’s home. NHBO trips are part of a tour that does not include a stop at the traveler’s workplace. Freight trips by truck are modeled via the Heavy Truck modeling component (see details below). Other commercial trips (not by heavy truck) are captured under the NHBW trip purpose. Through traffic, or External-External trips, are estimated using the traffic counts at the external stations and relationships derived from other surrounding areas. The Hampton Roads Model Methodology Report acknowledges that External-External trips are difficult to estimate because there was little observed data available. Since this is a common modeling situation, a procedure was developed to synthesize External-External trip values. It is further noted that although the synthesized approach produces reasonable values, it should be revisited at such time when an external survey data becomes available. The travel demand model is a peak-period model and is designed to model an average peak-period work day. However, the air quality component of the model is designed to represent an average summer day and includes additional tourist, or visitor, trips in its assignment.

The Hampton Roads 2009 travel demand model contains a Heavy Truck modeling component designed to estimate truck volumes (heavy trucks are defined as those with three or more axles or pulling a trailer. In the FHWA standard classification scheme, this is classes 6 through 13, inclusive. In the VDOT classification scheme, this is vehicle classes 4-6). Because the Truck model requires finer employment data than Retail and Non-Retail (different types of workers generate truck travel at very different rates), the employment socioeconomic inputs for the model are categorized into the following: Retail, Office, Industrial, and Other.

The transit network in the model was updated to accurately reflect base year (2009) Hampton Roads Transit and Williamsburg Area Transit Authority transit services. The transit/mode choice component was updated and converted into CUBE Public Transport as part of the model update in 2009. The mode choice model was developed using a variety of data sources, including the version of the Hampton Roads model used for the Norfolk Tide forecasts (Source: Norfolk LRT

Project Final Design Patronage Forecasting Report, 2007). These include the Comprehensive Operations Analysis (COA) survey (Source: Comprehensive Operations Analysis for Hampton Roads Transit, 2009), NHTS data (automobile occupancy) and model parameters based on experience of FTA reviews. The mode choice model is executed using the CUBE XCHOICE module.

For a full description of trip purposes and network assignment, please refer to The Hampton Roads Model Methodology Report Version 1.0.

4. How does the MPO participate in the development, review and oversight of the forecasting process?

The HRTPO is directly involved in the development, review, and oversight of the forecasting process. During the development, calibration, and validation of the current travel demand model, HRTPO staff was integral in determining the capabilities of the current model; specifically, it was HRTPO's request to incorporate a truck forecasting component as well as the ability to forecast time-of-day, and peak-period tolling features. HRTPO staff provided necessary data inputs, and reviewed model components throughout the development, calibration, and validation process.

In terms of applying the travel demand model, HRTPO staff maintains the regional model, develops socioeconomic data inputs, updates the transportation network, runs model scenarios, and interprets model outputs.

5. Who is responsible for travel forecasting at the MPO? If another agency or consultant provides required modeling technical expertise, is there a formal memorandum of agreement between the entities to delineate technical responsibilities, lines of communication and review, authorized expenditures, and reimbursement procedures?

The LRTP team is responsible for maintaining the regional travel demand model and travel forecasting at the HRTPO.

VDOT modeling staff provides technical assistance as needed. VDOT also purchases the statewide CUBE modeling software platform and makes this license available to the MPOs.

6. If in-house staff actively participates in model development and application, what formal training has the MPO technical staff received in travel demand forecasting? Does the MPO technical staff require training in specific technical areas?

MPO technical staff has received various levels of travel forecasting training, including learning about 4-step modeling theories to advanced CUBE scripting.

7. Has the MPO convened a peer review or other independent assessment of its travel forecasting methods? If so, provide the following information:

- ❖ The date of the most recent peer review
- ❖ The stated purpose of the peer review
- ❖ A list of participants
- ❖ Recommendations arising from the peer review
- ❖ The MPO's plan and/or schedule to address the peer-review Recommendations

No.

8. What transportation projects are proposed for the Hampton Roads metropolitan area where there is strong and coordinated opposition by local advocacy groups? Has the MPO been a defendant in, or been threatened with, legal action in which the adequacy of its travel forecasting methods was challenged? If so, what was the outcome of this action?

Since the last Certification Review in 2012, there are two projects in which there has been some opposition: the tolls associated with the Midtown/Downtown Tunnel project and the Light Rail extension to Virginia Beach.

The HRTPO has not been a defendant in legal action in which the adequacy of its travel forecasting methods was challenged.

O. Freight Planning

1. How does the MPO explore the need for enhanced intermodal connectivity by identifying major facilities serving air, rail, transit, and freight and demonstrating the linkages between these modes?

Much of HRTPO's freight planning efforts are conducted as part of the Hampton Roads Regional Freight Study. The overall purpose of the Regional Freight Study is to assist the HRTPO Board in making decisions on which transportation improvements related to freight are desirable.

The Regional Freight Study includes an analysis of foreign and domestic freight movement to, from, and within Hampton Roads for all transportation modes by weight and value for existing and future conditions. It also describes various intermodal facilities throughout the region such as the Port, airports, rail terminals, STRAHNET roadways, intermodal connectors, etc. Finally, the Regional Freight Study includes an analysis of the movement of trucks both within Hampton Roads as well as through the gateways of the region, and identifies locations with high truck delay levels.

HRTPO produces an update to the Hampton Roads Regional Freight Study on the same cycle (4-5 years) as the LRTP process. In addition, the 2034 LRTP includes many freight planning references. Chapter 7 includes challenges related to freight mobility, and Chapter 11 includes a description of regional freight strategies.

2. How does the MPO assess the future demand placed on intermodal links and identify specific projects to facilitate access to these facilities?

The Hampton Roads 2009 travel demand model includes a Heavy Truck modeling component to help forecast future truck volumes on intermodal links (as well as other network links throughout the region). See response N3 for a description of the Heavy Truck modeling component. In addition to the travel demand model, the HRTPO Project Prioritization Tool evaluates intermodal projects, looking at (among other things) future demand and facility access.

HRTPO has also completed a number of special studies related to freight in recent years that examine the future impact of freight movement on the regional roadway network. These studies include the Existing and Future Truck Delay in Hampton Roads study and the Truck-Delay Impacts of Key Proposed Highway Projects report.

3. What process does the MPO use to identify and analyze existing and projected goods movement in the region?

As part of the Regional Freight Study, HRTPO staff analyzes existing and projected goods movement using data from FHWA's Freight Analysis Framework or IHS's Transearch Database. HRTPO uses these data sources to identify existing and future goods movement by commodity type, mode, origin and destination, tonnage, and value.

HRTPO has also completed a number of special studies related to freight in recent years, based on discussions with the Virginia Port Authority (VPA) and the Freight Transportation Advisory Committee (FTAC), which is described in detail below. These studies include:

- *Suffolk Rail Impact Study*
- *Traffic Impact of an Inland Port in Hampton Roads*
- *Existing and Future Truck Delay in Hampton Roads*
- *Positioning Hampton Roads for Freight Infrastructure Funding*
- *Truck-Delay Impacts of Key Proposed Highway Projects*

- *The HRTPO Board also allocated funds to analyze the Economic Assessment of Tolls on Freight Transportation in the Hampton Roads Region*

4. Are freight shippers and transit engaged in the development of the LRTP, TIP, and other MPO products? What opportunities do private enterprises, including private transit providers, have to participate in the planning process?

The HRTPO Policy Board established the Freight Transportation Advisory Committee (FTAC) in 2009 to provide an opportunity for the freight industry, both in the private and public sector, to participate in and contribute to the regional transportation planning process. The mission of the FTAC is to advocate on behalf of the systematic needs for the transport and movement of freight in the region. The FTAC currently includes representatives from Canon, COSCO Container Lines, The CrossGlobe Group, Givens Transportation, Norfolk Southern Corporation, Virginia Maritime Association, and WalMart, with staff support from the Virginia Port Authority.

The FTAC has a number of accomplishments, including:

- a. *Producing a video – “A Region United” – that presents the importance of freight. The video is available at <https://youtu.be/PJ-3s48TnUA>.*
- b. *Co-sponsoring the Virginia Freight Transportation Summit.*
- c. *Assisting HRTPO staff with freight aspects of the Project Prioritization Tool and the LRTP.*
- d. *Assisting HRTPO staff with planning efforts such as the Regional Freight Study and other freight-related studies.*
- e. *Requesting and assisting with the “Economic Assessment of Tolls on Freight Transportation in the Hampton Roads Region” study that was completed in 2015.*

P. Landuse/Multimodal/Transit Planning and Sustainability

1. Describe how the MPO encourages the coordination of local land-use policies and Transit Oriented Development (TOD). To what extent does your MPO use Context Sensitive Solutions in transportation projects?

- [Transit Vision Plan](#) (HRT, WATA, DRPT; 2011) (HRTPO led phase one of the transit vision plan)
- [Livable Streets Initiative](#) (2004)
- [Complete Streets](#) (FY17)

2. How does the MPO promote equitable and affordable housing? In areas where access to transportation has driven up the local real estate market, such as in TOD communities, has the MPO been involved with any regional or local efforts to ensure that affordable housing is available for people of all ages, incomes, races, and ethnicities?

One way the HRTPO promotes affordable housing is by planning and funding roadways which provide access to locations with less expensive real estate.

3. Does the MPO target resources towards existing communities, focusing on community revitalization, infill development, and curtailing suburban sprawl?

Serving only the urbanized area (and areas planned for urbanization within the planning horizon), most HRTPO staff work and board planned/funded projects serve existing communities. An example of HRTPO staff work particularly focused on infill is [Non-Driver Opportunity Analysis \(2009\)](#). An example of HRTPO board funding to curtail suburban sprawl is allocating \$86m of board funds (CMAQ, RSTP) to Norfolk's LRT project.

4. Describe how the MPO promotes any activities to encourage private sector investment in community revitalization and infill development, as well as brownfields redevelopment.

An example of HRTPO staff work particularly focused on infill is [Non-Driver Opportunity Analysis \(2009\)](#).

5. How does the LRTP consider alternative land use scenarios? Briefly describe how the MPO utilizes GIS in coordinating transportation and land use planning.

Currently, we develop socioeconomic (SE) data for the horizon year of the plan, as well as some interim years. SE data for employment is categorized as retail, office, industrial, and other. Moving forward, we intend to use scenario planning to investigate potential impacts of different land use development patterns. A scenario planning workshop/peer exchange has been tentatively scheduled for the HRTPO in the Fall of 2016.

6. How is HRT and WATA planning process coordinated with the MPO's planning process?

Representatives of HRT and WATA participate as members of the HRTPO Board, TTAC, etc. For the FY16 UPWP, HRTPO staff met with staff from HRT and WATA to coordinate their work (e.g. Connect Hampton Roads) and HRTPO work (e.g. Transit Benchmark Study).

7. What role does the MPO play in development of a coordinated human service transportation plan and competitive selection of projects?

The HRTPO was the primary author of the Coordinated Plan and was directly involved in the selection of projects for the JARC and New Freedom programs when they existed as individual FTA programs (Section 5316 and 5317, respectively). However, with MAP-21, the activities eligible under the former JARC program were consolidated under the Urbanized Area Formula Grants (5307) program and the activities eligible under the former New Freedom program were consolidated under the Enhanced Mobility of Seniors and Individuals with Disabilities (5310) program. Both 5307 and 5310 are administered by DRPT. Therefore, the current Coordinated Plan was developed by DRPT and the MPO is not directly involved in the selection of projects under the 5307 and 5310 programs.

8. Transit operators, describe the major issues facing your organizations and the major needs of the transit riders you serve. How are these issues and needs addressed through the metropolitan planning process?

(Question has been forwarded to HRT & WATA.)

9. Transit operators, do you have a plan than describes your long and short term systems level goals? If so, how has development and implementation of these plans been coordinated with the MPO's planning process; i.e. inclusion in the LRP, UPWP, TIP?

(Question has been forwarded to HRT & WATA.)

10. What is the role of each transit operator in developing the financial forecasts that are used in preparing the TIP and Plan? Is this process described in any document adopted by the MPO and transit operators? If so, provide a copy of the document.

For the TIP Financial Plan, the information is provided to the HRTPO by DRPT. The transit operators coordinate with DRPT on their financial forecasts. For transit systems operations and maintenance, each transit operator conducts its own analysis, with assistance from DRPT. FTA guidelines on the useful life of transit vehicles direct the schedule with which transit vehicles are replaced throughout the Commonwealth. This process is described in the Financial Plan section of the TIP, which was provided to the Federal Team as part of their previous documentation request.

11. How would you learn of significant privately funded transit projects proposed or under development within the MPA boundaries? Are there any privately funded transit projects planned in the region?

We would likely hear of them by attending monthly HRT Board meetings (one staff member attends each meeting and sends an email summary to superiors) or monitoring local media (newspapers, blogs, websites, etc.). We are not aware of any privately funded transit projects planned for the region. (Although not a regionally "significant" project, the Downtown Norfolk Council currently operates a free downtown shuttle called FRED.)

12. How are multimodal planning activities, such as bicycle and pedestrian, being integrated in the transportation planning process?

The Multimodal Mobility section of the FY16 UPWP includes the following efforts:

- *Public Transit Benchmarking Study (began as "business case" study)*
- *Transportation Connectivity Gap*
- *Ride-Hailing Study (began as "On-Demand Ride Services" study)*
- *Signature Paths (March 2016)*

The FY17 UPWP will include the following multimodal projects:

- *Complete Streets*
- *Regional Active Transportation Plan*

The draft 2040 LRTP includes [bike and ped projects scored](#) and selected using the HRTPO Project Prioritization Tool.

13. Does the MPO have a bicycle and pedestrian plan? Is it a stand alone plan? Discuss the selection and prioritization process for bicycle and pedestrian projects. Does the MPO partner with Bike/Ped safety programs on a local level? Otherwise?

The FY16 UPWP includes a Signature Paths Study (completed during Winter 2016) and the first Regional Active Transportation Safety Study.

The draft FY17 UPWP includes the preparation of a Regional Active Transportation Plan. Staff plans to use the HRTPO Project Prioritization Tool as a starting point for selecting projects for that plan.

14. Does the MPO have specific programs that encourage commuters to use any other mode of transportation other than the automobile?

The HRTPO Board has historically allocated a significant portion of its RSTP and CMAQ funds to non-highway projects. For the FY 1992 – FY 2022 period, 51.3% of CMAQ funds and 30.4% of RSTP funds has been allocated to non-highway projects.

As specific examples, the HRTPO Board has allocated approximately \$1 million in CMAQ or RSTP funds per year to the TRAFFIX TDM program and allocated a total of approximately \$86 million to the TIDE LRT project.

15. Does the MPO coordinate with other Federal agencies such as HUD and EPA to address livable and sustainable community initiatives?

HRTPO staff and housing and environmental staff members of HRPDC jointly submitted an application to HUD for a sustainability grant.

16. Describe how the MPO encourages local communities to make smart energy choices such as locally generated renewable energy.

To date, the HRTPO staff has not advised its member localities or Dominion Power concerning renewable energy.

Q. Public Involvement

The requirements for public involvement are set forth primarily in 23 CFR 450.316(a)(1)(2)(3) and (b) which address elements of the metropolitan planning process. Public involvement also is addressed specifically in connection with the Transportation Plan in 450.322(g)(1)(2), (i), and (j) and with the TIP in 450.324(b); participation and consultation requirements, which pertain to the Transportation Plan and the TIP, also are included in 450.322 (f)(7) and (g)(1)(2), (i), and (j) and in 450.324(b).

1. What opportunities are provided for public participation at key decision points in the planning, programming, and project development phases of transportation decision making? Is public involvement in the metropolitan transportation process coordinated with the statewide public involvement process as much as possible to enhance public consideration of issues, plans, and programs?

Public meetings, surveys, meeting held throughout the community, public notices, social media, public notices, community postings, HRTPO's Citizen Transportation Advisory Committee and EJ Roundtable

2. How does the public participation process demonstrate explicit consideration and responsiveness to public input received during the planning and program development process? Specifically, in what instances have comments raised through public participation resulted in changes to policy, plans, programs or projects?

The HRTPO has a public comment and input process by which the public is invited to comment on all projects and programs at the HRTPO. All comments, suggestions and input are shared with the HRTPO Board and in many cases, HRTPO staff responds to the public's questions suggestions or concerns, in writing. Staff response is also shared with the HRTPO Board. These comments can be shared during the Quadrennial Certification itself. Over the last four years (since the 2012 Quadrennial Certification, over 150 comments have been received regarding TPO projects, reports and programs. An example of the public playing a role in the development of a process, is the EJ and Title VI Methodology, which has been completely open to public review and comment. The public has been pivotal in the development and refinement of the methodology itself.

3. How does the MPO's public involvement process identify and address the needs of those who have been traditionally underserved, including low-income and minority households? How does the MPO engage in public education efforts designed to make the transportation planning process and decisions it produces easier to understand in laypersons' terms?

The EJ Roundtable and Citizen Transportation Advisory Committees are utilized to assist the TPO in gaining an understanding of and working relationship with all citizens of Hampton Roads. All TPO documents are vetted through the EJ Roundtable in order to ensure that they are easily understood by the public at large. The Public Involvement Administrator is a 30 plus year practitioner of Public involvement with a focus on EJ communities and reviews all information shared with the public. She oversees the HRTPO website, social media and all written communication between the HRTPO and the public.

4. What visualization techniques have been used to aid the public in understanding the transportation planning process including the UPWP, LRTP, TIP, and supporting studies?

Infographics, Story-boarding, Surveys, video, GIS and other mapping tools such as community asset mapping

6. What public involvement procedures are used by the transit operator(s)? Describe any coordination of public involvement that occurs between the MPO and transit operator?

Transit conducts public meetings. HRTPO invites transit to participate in EJ roundtables and CTAC meetings. Transit does give regular updates at these meetings. HRTPO and Transit do share information via each other's social media platforms.

7. How is public involvement incorporated in the TIP development process, and how has this involvement affected the content of the TIP? Is the disposition of comments and changes in the final Transportation Plan or TIP documented, analyzed, and reported when significant oral and written comments are submitted? Is additional time provided for public review if the "final" document is significantly different from the draft originally made available for public review?

<http://www.hrptip.org/page/public-participation/>

8. Are there opportunities for participation by traffic, ridesharing, parking, transportation safety, and enforcement agencies; commuter rail operators; airport and port authorities; appropriate private transportation providers; and city officials? Are there opportunities for participation by local, State, and Federal environmental resource and permit agencies where appropriate?

Yes

9. How was the public involvement plan developed (who participated in its development)? What are the public involvement program's goals? What is the strategy for achieving these goals?

<http://www.hrtpo.org/page/public-participation-plan/>

The public participation plan is written by the Public Involvement Team, led by the Public Involvement and Title VI Administrator. The plan is vetted by HRTPO Planning Partners and the Public for during a 45 day public comment period prior to the plan being adopted by the HRTPO Board.

10. Who is responsible for public involvement? How do public involvement activities conducted throughout the metropolitan planning process influence transportation investment decisions and policies of the State and public transit agency?

The Public Involvement and Title VI Administrator is responsible for ensuring the entire HRTPO staff participate in active, meaningful public involvement.

During all phases of the metropolitan planning process, the public is invited to participate, and public comments and guidance are utilized to enhance all HRPTO activities.

R. Title VI and Related Requirements

1. Who is your Title VI Officer? Do you have a Title VI policy? What goals, policies, approaches, procedures, and measurements has the MPO adopted / undertaken for ensuring, demonstrating, and substantiating that the planning process complies with Title VI/EJ/LEP and related requirements?

Kendall Lynn Miller, Public Involvement and Title VI Administrator, is the Title VI Officer.

<http://www.hrtpo.org/page/title-vi-and-lep-guide/>

<http://www.hrtpo.org/page/title-vi-and-non-discrimination/>

2. Describe the MPO's process for handling Title VI (and other) complaints. Please provide detail of any active or previously resolved Title VI complaints regarding the MPO or the transportation planning process. What tracking mechanism does the MPO have regarding Title VI complaints?

<http://www.hrtpo.org/page/title-vi-and-lep-guide/>

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3. Describe the planning process used to develop a demographic profile of the metropolitan planning area that includes identification of the locations of socioeconomic groups, including low-income, disabled, LEP, and minority populations as covered by Title VI provisions.

<http://www.hrtpo.org/page/title-vi-and-lep-guide/>

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4. How does the MPO determine the need to have documents available in alternative formats? (e.g., Braille, large print, tape cassette, other languages)?

The entire HRTPO website is translatable via Google translate.

All public notices are translated into Spanish and Tagalog. See our current public comment opportunities translation page here: <http://www.hrtpo.org/page/translated-public-notice,-reports-and-documents/>

HRTPO is committed to the principles of the [Americans with Disabilities Act](#). It is HRTPO's policy to provide equal access for individuals with disabilities, which includes this website. The HRTPO website is designed to comply with two different standards for website accessibility: compliance with the Priority Level One standards recommended by the [World Wide Web Consortium](#) (W3C) and compliance with the legal requirements of [Section 508](#) of the U.S. Rehabilitation Act of 1973. Popular [screen readers](#) can be used effectively by the visually impaired on this website.

The TPO is also a part of the Virginia Relay Service.

HRTPO's ADA page is located here: <http://www.hrtpo.org/page/ada-statement-and-accessibility-policy/>

5. To what extent in the planning process are data collected and analyzed by the MPO in assessing potential benefits and impacts of transportation system investments, particularly related to low-income and minority populations, LEP populations, the elderly and disabled, and ethnic or religious groups?

<http://www.hrtpo.org/page/ej-methodology-tool/>

<http://www.hrtpo.org/uploads/docs/101515TPO-Enclosure%2012-Hampton%20Roads%202040%20LRTP-Candidate%20Project%20Evaluation%20Title%20VI-Environmental%20Justice%20Methodology.pdf>

6. Discuss the number and nature of consultant contracts used by the MPO. Are there contracting opportunities for planning studies, corridor studies, or other work to include minorities, women, and Minority Institutions of Higher Education (MIHE) and Historically Black Colleges and Universities (HBCUs)?

Almost all HRTPO tasks are conducted by staff and with in-house technical expertise. The only recent consultant contract was for the High Speed Rail Vision Plan study.

7. Does the MPO track DBE participation through the use of the Bid Opportunity List and DBE Participation Statement? Does the MPO report actual payments to DBEs? What methods are used? How is data collected? Who is responsible for this data? How is it reported to FHWA and FTA?

The HRTPO maintains a bidder's list.

8. Does the MPO have the "DBE Assurance" language in all of its contracts? "The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate."

Yes

S. Climate Change

The federal team is interested in exploring HRTPO's planning activities related to consideration of climate change both through reduction of greenhouse gas (GHG) emissions and adaptation of transportation networks to extreme weather, including possible **regional evacuation planning**. Although MAP-21/FACT Act requirements do not directly address climate change, there are relevant broad references in the planning factors to "protect and enhance the environment, promote energy conservation," and to increase the safety and security of the transportation system.

1. What activities does HRTPO have underway to incorporate climate change considerations in its transportation planning process? Are you addressing mitigation and adaptation -- greenhouse gas (GHG) reductions as well as adaptation of transportation networks? And how?

HRTPO climate change work to-date has been focused on adaptation:

- [Roadways Serving the Military and Sea Level Rise/Storm Surge \(2013\)](#)
- [Sea Level Rise and Storm Surge Impacts to Roadways in Hampton Roads \(May 2016\)](#)
- [Prioritizing Highway Projects for Improvement of Evacuation \(2014\)](#)

2. How is climate change addressed in long-range planning, including work on vision or scenario plans or in updating the CLRP? Has it affected TIP development, including project screening or selection?

In "Sea Level Rise and Storm Surge Impacts to Roadways in Hampton Roads" (May 2016), staff included three (3) sea-level rise scenarios (2-foot rise, 2-foot rise plus 25 year storm surge, 2-foot rise plus 50 year storm surge). In FY17 staff plans to lead TTAC in proposing that the Board add sea-level rise to the HRTPO Project Prioritization Tool to be used for the 2045 LRTP.

3. How have regional transportation planning activities changed as a result of adding greenhouse gas emissions reductions as a stated goal? Are there any funding implications (new sources, emphasis of different types of investments, or changes in allocation procedures)?

In recent years, staff has invested a larger portion of its time in studying the impact of non-highway modes:

- [Mode Choices of Millennials](#)
- [Public Transit Benchmarking Study \(2016\)](#)
- [Transportation Connectivity Gap \(2016\)](#)
- [Ride-Hailing Study \(2016\)](#)
- [Signature Paths \(March 2016\)](#)

The FY17 UPWP will include the following multimodal projects:

- [Complete Streets](#)
- [Regional Active Transportation Plan](#)

4. Has there been an additional/different emphasis or policies regarding promoting transit related to GHG emission reductions? How have you communicated your efforts and changes in policy/approach to key stakeholders and the public, and involved them in the process? How have they responded?

In 2016, the Executive Director of the HRPDC/HRTPO partnered with HRT and Re-Invent Hampton Roads to lead the effort of determining what transit infrastructure is needed in Hampton Roads and how much it will cost.

5. What technical methods, including modeling, does the MPO or other partner agencies use to analyze and forecast greenhouse gas emissions? What challenges have you encountered?

To-date the MPO has not modeled GHG emissions, focusing instead on VMT reduction.

6. Is the MPO involved with encouraging use of more efficient and alternative fuel vehicles? Are there any related policies and practices regarding road management directed to VMT reduction? What types of related changes have been made in activities or policies related to freight movement and GHG emissions?

The Board allocates \$1m of RSTP or CMAQ off-the-top to the TRAFFIX TDM program for VMT reduction each year.

T. Linking NEPA and Transportation/Environment

1. Does the LRTP provide specific project-level information from the planning process, such as clear project descriptions, purpose and need statements for each project, anticipated project milestones for each phase, and funding source information? To what extent does the MPO participate in defining a project's Purpose and Need that is used to determine the range of reasonable alternatives to be considered in the environmental process?

For the 2034 LRTP, the Hampton Roads 2034 Long-Range Transportation Plan Transportation Project Priorities, Project Information Guide provided one-page summaries for each project listed in the fiscally-constrained Plan. These one-page summaries included Project Descriptions (including project system, termini, and description of work), a quantitative Summary of the Project, Estimated Total Construction Cost, the Project Prioritization Category and Score, an Overview of the Project Status (NEPA, Funding, PE, Right of Way, and Construction status), and an image depicting the project location/general alignment.

In regards to defining a specific project's Purpose and Need, the MPO actively participates in the review of Purpose and Need statements for high-profile regional projects, as well as alternatives considered as part of the environmental process.

2. Are sub area or corridor studies undertaken in the MPO planning area? If so, what organizations are involved and what are their roles? Are these studies conducted so that planning decisions and analyses may be carried through to the project development and environmental review processes?

Yes, on occasion, sub-area and corridor studies are developed. In the past, at a locality's request, HRTPO staff has conducted the analyses. For these cases, the requested task is incorporated in the UPWP (either as an individual task or under the Technical Assistance task). Localities will also hire consultants to perform these types of analyses; in these instances, HRTPO staff is sometimes requested to provide technical assistance (which is generally captured under the Technical Assistance UPWP task). Depending on the formality of the analyses, the analysis can be carried through to project development and the environmental review process.

3. To what extent are potential environmental mitigation activities discussed in the MTP?

The 2034 LRTP report contains sections describing the importance for the region to have effective mitigation strategies in place in order to help minimize impacts to natural resources and sensitive communities. Environmental mitigation is one of the approaches listed in the 2034 LRTP in obtaining the goal to 'Protect and enhance the environment, promote energy conservation, improve the quality of life, and reduce greenhouse gas emissions.' Section 13 (page 13-3 to 13-4) of the 2034 LRTP report details the Environmental Mitigation consultation efforts and discussion with regional environmental agencies.

For the 2040 LRTP currently under development, Environmental Mitigation consultation efforts and discussions with regional environmental agencies was also conducted. This more recent effort is documented in the Hampton Roads 2040 Long-Range Transportation Plan: Transportation Challenges and Strategies report, pages 106-108, and in Appendix A of said report.

4. What role do the resource agencies serve in the discussion of environmental activities in the MTP?

For the 2034 LRTP, resource agencies and staff from the region's localities participated in the development of the LRTP, including: allocating the forecasted 2034 land use and socioeconomic data, developing the Project Prioritization Tool, and selecting projects for the draft plan.

A map and table of the candidate projects for inclusion in the 2034 LRTP were sent to environmental resource agencies with a request for feedback on projects based on their respective area of expertise. In addition to the solicitation for feedback regarding candidate projects, several environmental agencies were also asked to comment on text (referred to as the Environmental Mitigation Discussion text) that explains the relationship between environmental and transportation planning, as well as the need and purpose in coordination between the two fields. The environmental mitigation discussion text and associated summary table are based on text developed by VDOT staff for use by MPOs around the state. The text and table explain the metropolitan transportation planning process as well as the need and use of the regional LRTP. Furthermore, the text explains the environmental considerations at varying stages of project development, including examples of potential environmental mitigation activities (see Figures 13.1 and 13.2 of the 2034 LRTP report for

a listing of environmental agencies consulted). Responses received from resource agencies is documented on page 13-5 of the 2034 LRTP. Appendix B of the 2034 LRTP report also documents these Environmental Mitigation efforts.

Similar to the 2034 LRTP efforts, resource agencies and staff from the region's localities participated in the development of the 2040 LRTP, including: assisting in the development of the Vision and Goals for the Plan, allocating the forecasted 2040 land use and socioeconomic data, refining the list of candidate projects, providing data for project evaluation and prioritization, and selecting projects for the draft plan. A map and table of the candidate projects for inclusion in the 2040 LRTP were sent to environmental resource agencies, with a request for feedback on projects based on their respective area of expertise. Responses are located in Appendix A of the Hampton Roads 2040 Long-Range Transportation Plan: Transportation Challenges and Strategies report (see Figure 28, page 106 of the Hampton Roads 2040 Long-Range Transportation Plan: Transportation Challenges and Strategies report).

5. What strategies are used to consult with state and local resource agencies in the development of the MTP?

Written correspondence with visual aids (tables and maps) is sent to environmental resource agencies. As described in response T4 above, the HRTPO staff not only asks for feedback on candidate projects being considered for inclusion in the LRTP, but also the environmental discussion itself. Feedback received on the projects is documented in the project evaluation phase. Feedback received on the environmental discussion is evaluated in terms of improving future environmental discussions/reviews.

U. Optional Additional Comments

1. Please provide any additional comments for consideration during the Planning Review.

V. Livability

1. What type of regional goals and policies has the MPO developed to reflect quality of life and livability in the MTP?

The livelihood and quality of life of many residents is dependent on the constant improvement of the transportation system. The LRTP is the document that identifies and plans for critically important transportation improvements that impact the region's economic vitality and every citizen's quality of life. Goals in the current 2034 LRTP and the 2040 LRTP under development reflect approaches designed to help improve the quality of life and promote livability in the region. These goals include: increasing safety, protecting the environment, promoting land use compatibility, increasing accessibility and mobility for people and goods, improving transportation options, improving the coordination of transportation systems across and between modes, promoting an efficient and reliable regional transportation system, and promoting a transportation system that supports the economic vitality of the region.

Through collaboration at the various levels of government with citizen and business stakeholders, Hampton Roads can employ various strategies, outline policies, and allocate resources to implement these goals for the benefit of the general population as well as special needs populations, the military, and freight in the region. Some strategies include congestion management, land use and transit planning, environmental planning/coordination, conducting special studies, and regional freight planning. Additionally, the region must continue planning for and investing in not only the highway network, but also the non-motorized transportation network (sidewalks, bikeways, and trails) as well as rail infrastructure. Specific approaches to improving quality of life in Hampton Roads include: Reducing Vehicle Miles Traveled; Enhancing Alternate Modes of Transportation, Environmental Mitigation, and Environmental Justice. The Project Prioritization Tool also evaluates candidate transportation projects on its ability to improve system utility/efficiency, decrease travel times, increase safety, enhance mode and route choices, promote compatible land use patterns, support economic growth, provide enhanced accessibility, and promote cleaner air. Improvements in these criteria can result in a better quality of life for residents.

The 2034 also discusses Livability Principles (published by the Partnership for Sustainable Communities) which focus on improving the coordination between housing, transportation, and environmental development policies. These Livability Principles can help guide policy-making and investment decisions in order to maximize a return on investment and improve the regional quality of life. Consistent with these Livability Principles, both the 2034 and the 2040 LRTPs include goals to provide more transportation choices, develop a safer and more reliable transportation system that helps to improve air quality and reduce greenhouse gas emissions

2. What type of initiatives to reach beyond the usual stakeholders and interest groups through the public participation plan, including seeking the involvement of groups or agencies that are concerned with housing, public health and fitness, water resources, or other “non-traditional”

The EJ Roundtable, and community meetings with targeted groups

3. What level of coordination is done between the transportation planning agencies and local, regional, or state land use planning, development, and/or management agencies

Coordination between the transportation planning and land use takes place primarily via the TTAC. There is also some coordination between the HRTPO and the HRPDC regarding land use planning.

4. How are issues related to “smart growth”, context-sensitive solutions, “complete streets”, transit-oriented development, etc. considered, advanced, or supported through the MPO, State DOT, transit operator(s), local jurisdictions, or other organizations in the region?

The HRTPO has conducted the following efforts:

- *Hampton Roads Smart Growth Analysis (2003)*
- *[Livable Streets Initiative](#) (2004)*
- *[Non-Driver Studies](#) (2005-2009)*
- *[Identifying Promising Intersections for High-Congestion-Benefit/Low-Cost Improvements](#) (Jan. 2016)*

The FY17 UPWP will include the following multimodal projects:

- *Complete Streets*