HAMPTON ROADS TRANSPORTATION PLANNING ORGANIZATION

# Guide to the HRTPO CMAQ and RSTP Project Selection Process

Prepared by the Hampton Roads Transportation Planning Organization
Updated June 2016

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**ABSTRACT**
This document provides information on the process used by the Hampton Roads Transportation Planning Organization (HRTPO) to select projects for funding under the Congestion Mitigation and Air Quality Improvement Program (CMAQ) or Regional Surface Transportation Program (RSTP).

**ACKNOWLEDGMENTS**
This document was prepared by the Hampton Roads Transportation Planning Organization (HRTPO) in cooperation with the U.S. Department of Transportation (USDOT), Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Virginia Department of Transportation (VDOT), Virginia Department of Rail and Public Transportation (DRPT), Transportation District Commission of Hampton Roads (TDCHR), and Williamsburg Area Transit Authority (WATA). The contents of this report reflect the views of the HRTPO. The HRTPO staff is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the FHWA, FTA, VDOT or DRPT. This report does not constitute a standard, specification, or regulation. FHWA, FTA, VDOT or DRPT acceptance of this report as evidence of fulfillment of the objectives of this program does not constitute endorsement/approval of the need for any recommended improvements nor does it constitute approval of their location and design or a commitment to fund any such improvements. Additional project level environmental impact assessments and/or studies of alternatives may be necessary.

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The HRTPO assures that no person shall, on the ground of race, color, national origin, handicap, sex, age, or income status as provided by Title VI of the Civil Rights Act of 1964 and subsequent authorities, be excluded from participation in, be denied the benefits of, or be otherwise subject to discrimination under any program or activity. The HRTPO Title VI Plan provides this assurance, information about HRTPO responsibilities, and a Discrimination Complaint Form.

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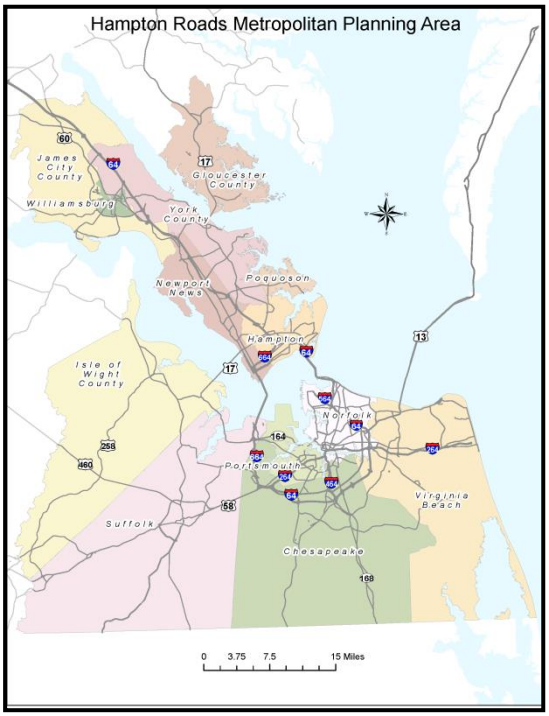
# OVERVIEW

The Hampton Roads Transportation Planning Organization (HRTPO) is the metropolitan planning organization (MPO) for the Hampton Roads area. As such, it is a federally mandated transportation policy board comprised of representatives from local, state, and federal governments, transit agencies, and other stakeholders and is responsible for transportation planning and programming for the Hampton Roads metropolitan planning area (MPA).




The MPA is comprised of 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.

The purpose of this document is to provide information and guidance on two federal programs: the Congestion Mitigation and Air Quality Improvement Program (CMAQ) and the Regional Surface Transportation Program (RSTP). The HRTPO has the responsibility and authority of project selection and allocation of funds for these two programs. Each of these programs is described in greater detail in the following sections of this document.

## WHAT IS CMAQ?

CMAQ funds must be allocated to transportation projects and programs that help improve air quality and reduce traffic congestion. This funding is intended for areas not meeting the National Ambient Air Quality Standards (NAAQS), referred to as *nonattainment areas,* and for areas that previously did not meet the standards, but now do, referred to as *maintenance areas*. The Fixing America's Surface Transportation (FAST) Act, signed into law on December 4, 2016, made CMAQ available for maintaining standards in attainment areas. Hampton Roads has been designated as an attainment area for the current ozone standard.

## WHAT IS RSTP?

The FAST Act converted the long-standing Surface Transportation Program (STP) into the Surface Transportation Block Grant Program (STBGP). The STBGP promotes flexibility in State and local transportation decisions and provides flexible funding to best address State and local transportation needs. Regional Surface Transportation Program (RSTP) funds are STBGP funds that are apportioned to specific regions within the State.

## WHO ARE ELIGIBLE CMAQ/RSTP RECIPIENTS?

Eligible recipients of CMAQ and RSTP funds in Hampton Roads include the localities in the MPA, Hampton Roads Transit (HRT), Williamsburg Area Transit Authority (WATA), the Virginia Department of

Transportation (VDOT), the Virginia Department of Rail and Public Transportation (DRPT), the Virginia Port Authority (VPA), and the HRTPO.

## PROJECT SELECTION PROCESS

To be eligible for CMAQ or RSTP funding, a project proposal must meet eligibility requirements specified in the federal regulations and program guidance and be consistent with the current HRTPO Long-Range Transportation Plan (LRTP). The LRTP is a long-term (at least 20 years), financially-constrained, transportation plan for the Hampton Roads MPA. The LRTP strives to improve transportation within the Hampton Roads region while increasing economic vitality, safety, mobility, and environmental protection.

The process for obtaining CMAQ or RSTP funding for transportation projects is a competitive one. Proposed projects are evaluated and ranked using a specific set of criteria that have been approved by the HRTPO Board. The Transportation Programming Subcommittee (TPS) – taking into account the available funding, policies and priorities of the HRTPO and Commonwealth Transportation Board (CTB), and using the ranked project lists as a guide – produces a list of recommended projects and funding allocations for consideration by the Transportation Technical Advisory Committee (TTAC) and the HRTPO Board. The steps of the project selection process are summarized below. For deadline dates associated with a particular project selection process cycle, see the schedule posted on the HRTPO website.

### CMAQ/RSTP PROJECT SELECTION PROCESS STEPS

1. A public notice is posted to solicit ideas from the general public for projects to be considered for CMAQ/RSTP funding. Ideas received from the public will be forwarded by HRTPO staff to the appropriate localities and/or agencies. This step usually occurs in July.

2. Applications for project proposals are accepted from eligible recipients. This step usually begins in July and runs through mid-August.

3. Submitted project proposals are analyzed and ranked by HRTPO staff. This step usually runs through the end of September.

4. The TPS meets to review the project proposals and recommends selected projects to be funded with CMAQ or RSTP funds. This step usually occurs in October.

5. The TTAC considers the recommendations of the TPS and makes a recommendation for consideration by the HRTPO Board. This step usually occurs in November.

6. The HRTPO Board considers the TTAC recommendation and takes action to approve a set of projects and funding allocations for CMAQ and RSTP. This step usually occurs in November.

## CMAQ AND RSTP FUNDING POLICIES

The following are the funding policies of the HRTPO regarding CMAQ and RSTP funds:

1. Priority for new CMAQ and RSTP allocations will be given in the following order:
   a. Previously approved and underway CMAQ and RSTP project phases will be funded to completion.

   b. Other on-going project phases eligible for CMAQ and RSTP funding will be evaluated in order to be considered.

   c. Unfunded and new candidate projects will be evaluated and ranked in order to be considered.

2. Whenever possible, a reserve account of approximately 5% of the CMAQ or RSTP mark per fiscal year will be established to cover potential cost overruns or future reductions in marks. The reserve amount for a particular year should be allocated by the end of that fiscal year.

3. Program six years of CMAQ and RSTP preliminary allocations in accordance with project schedules and estimates. Allocate funds consistent with how they will be obligated and expended.

4. CTB members will work with MPOs and VDOT/DRPT staff to identify projects and allocations for CMAQ. VDOT Central Office, working with DRPT, will manage programming CMAQ allocations.

5. Considerations for funding cost overruns:
   a. If the cost/annual allocation and/or scope of a project change less than 10% on any one CMAQ or RSTP funded project, the locality/agency should notify the TTAC with a request and justification for a change in funding. The TTAC must review the request and recommend use of the reserve account or, if possible, commit future year funding to preserve the project.

   b. If the cost/annual allocation and/or scope of the project change by more than 10% on any one CMAQ or RSTP funded project, the locality/agency should notify the TTAC and HRTPO Board with a request and justification for a change in funding and/or scope. The TTAC and HRTPO Board must review the request and may recommend one or any combination of the following:

      i. Scale back the project
      ii. Use local funds
      iii. Use CMAQ or RSTP reserve account funds
      iv. Use existing CMAQ or RSTP funds from another project
      v. Use future CMAQ or RSTP allocations
      vi. Use future non-CMAQ/non-RSTP funds
      vii. Drop the project

6. Policy for handling surplus CMAQ and RSTP allocations on completed or canceled projects: While the handling of surplus CMAQ and/or RSTP allocations on completed or canceled projects may be determined by the TPS, TTAC, and HRTPO Board on a case by case basis, in general, if there are unused CMAQ and/or RSTP funds allocated to a project that has been completed or canceled, the transfer of the available funds will be handled as follows:

   Within 180 days after a project has been completed (VDOT C5 form processed and final reimbursement received or equivalent from other agencies) or canceled:

   a. The project sponsor (locality or agency) will request that the available funds be transferred to one or more of the sponsor's previously approved CMAQ or RSTP projects, depending upon the type of funds available; or

   b. The project sponsor (locality or agency) will request that the available funds be transferred to the CMAQ or RSTP reserve account.

## CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM

### WHO RECEIVES CMAQ FUNDING?

Federal CMAQ funds are apportioned to each state according to the severity of the state's problems with respect to the National Ambient Air Quality Standards (NAAQS) set by the Environmental Protection Agency (EPA). The state may use its CMAQ funds in any nonattainment or maintenance area. Virginia allocates CMAQ funds to MPAs that have been designated as nonattainment or maintenance areas. MPOs, like the HRTPO, are responsible for selecting projects for CMAQ funding within their MPAs.

### WHAT PROJECTS QUALIFY FOR CMAQ FUNDING?

To qualify for CMAQ funding, projects must demonstrate improvement in air quality. The current federal transportation funding legislation, Fixing America's Surface Transportation (FAST) Act, directs States and MPOs to give priority to two categories. First, priority is to be given to diesel retrofits. This is particularly necessary to facilitate contract compliance, and other cost-effective emission reduction activities, taking into consideration air quality and health effects. Second, priority is to be given to cost-effective congestion mitigation activities that provide air quality benefits. It should be noted that although the FAST Act establishes these CMAQ investment priorities, it also retains State and local agencies' authority in project selection.

Examples of projects that are eligible for funding under CMAQ include:

- **Highway Projects**
    - HOV Lanes
    - Intersection Improvements
    - Coordinated Signal Systems Improvements
    - Citywide Signal System Improvements

- **Transit Projects**
    - New/Expanded Service
    - Bus Shelters/Facilities
    - Vehicle Purchase/Replacement
    - Operating Assistance*

- **Fixed Guideway Projects and Studies****
    - High Speed Rail
    - Intercity Passenger Rail
    - Light Rail
    - New Facilities (e.g., lines, stations, terminals, transfer facilities)
    - Vehicle Purchase/Replacement
    - Operating Assistance*

- **Planning Studies****

- **Transportation Demand Management Projects**
    - Regional Rideshare
    - Marketing and Outreach Programs
    - HOV Express Bus Service
    - Park and Ride Lots

- **Intelligent Transportation Systems Projects**

- **Bikeway/Pedestrian Facilities**

- **Other**
    - Freight/Intermodal
    - Value/Congestion Pricing
    - Vehicle to Infrastructure Communications equipment

** Operating assistance to introduce new transit service or expand existing service is eligible. It may be a new type of service, service to a new geographic area, or an expansion of existing service providing additional hours of service or reduce headway. For a service expansion, only the operating costs of the new increment of service are eligible. Eligible operating costs include labor, fuel, maintenance, and related expenses. Operating Assistance may be CMAQ-funded for a maximum of three years. The intent is to support the demonstration of new services that may prove successful enough to sustain with other funding sources, and to free up CMAQ funds to generate new air quality benefits. The revised interim guidance on CMAQ operating assistance under MAP-21, published by FHWA in July 2014, revised the three-year operating assistance specified under previous guidance to allow for the operating assistance to be spread over five sequential years to allow for a taper down approach. Grantees may spread the third year amount (an amount not to exceed the greater of years 1 or 2) across an additional two years (i.e. years 4 and 5).*

*** Studies that are part of the project development pipeline (e.g., preliminary engineering) under the National Environmental Policy Act (NEPA) are eligible for CMAQ support, as are FTA Alternatives Analyses. General studies that fall outside specific project development do not qualify for CMAQ funding. Examples of ineligible studies include major investment studies, commuter preference studies, modal market polls or surveys, transit master plans, and others. These activities are eligible for Federal planning funds.*

## REGIONAL SURFACE TRANSPORTATION PROGRAM

### WHO RECEIVES RSTP FUNDING?

RSTP funds are apportioned by the State to the Metropolitan Planning Areas (MPAs) within Virginia. Metropolitan Planning Organizations, like the HRTPO, are responsible for selecting projects for RSTP funding.

### WHAT PROJECTS QUALIFY FOR RSTP FUNDING?

Examples of projects eligible for funding under RSTP include:

- **Highway Capacity, Accessibility, and Operational Improvements**
  - Roadway Widening
  - New Facilities
  - HOV Lanes
  - New Interchanges
  - Intersection/Interchange Improvements
  - Corridor Operational Improvements
  - Bridge Rehabilitation
  - Traffic Signal System Improvements

- **Intermodal Transportation Projects**
  - Freight Facilities

- **Transit Projects**
  - New Service
  - Expansion of Existing Service
  - Bus Shelters/Facilities
  - Vehicle Replacement/Purchase

- **Fixed Guideway Projects and Studies**
  - High-Speed Rail
  - Intercity Passenger Rail
  - Light Rail
  - New Facilities (e.g., lines, stations, terminals, transfer facilities)
  - Vehicle Purchase/Purchase

- **Planning Studies**

- **Transportation Demand Management Projects**
  - Regional Rideshare
  - Marketing and Outreach Programs
  - HOV Express Bus Service
  - Park and Ride Lots

- **Intelligent Transportation Systems**

# APPENDIX A – CMAQ POLICIES, PROCEDURES AND ANALYSIS METHODOLOGIES

## PROGRAM CRITERIA AND FUNDING POLICIES

### FUNDING PROGRAM CRITERIA

- Must meet all applicable federal regulations and requirements
- Must be consistent with the current HRTPO LRTP
- Provide funding for mix of forward thinking and traditional projects
- Rank based on cost-effectiveness for reductions of volatile organic compounds (VOC) and Nitrogen Oxides ($NO_x$)
- Improve air quality over the long term
- Projects should be of regional significance

### FUNDING POLICIES

1. Priority for new CMAQ allocations will be given in the following order:
   a. Previously approved and underway CMAQ project phases will be funded to completion.

   b. Other on-going project phases eligible for CMAQ funding will be evaluated in order to be considered.

   c. Unfunded and new candidate projects will be evaluated and ranked in order to be considered.

2. Establish a reserve account of approximately 5% of the CMAQ mark per fiscal year to cover potential cost overruns or future reductions in marks. The reserve amount for a particular year should be allocated by the end of that fiscal year.

3. Program six years of CMAQ preliminary allocations in accordance with project schedules and estimates. Allocate funds consistent with how they will be obligated and expended.

4. CTB members will work with MPOs and VDOT/DRPT staff to identify projects and allocations for CMAQ; VDOT Central Office, working with DRPT, will manage programming CMAQ allocations.

5. Considerations for funding cost overruns:
   a. If the cost/annual allocation and/or scope of a project change less than 10% on any one CMAQ funded project, the locality/agency should notify the TTAC with a request and justification for a change in funding. The TTAC must review the request and recommend use of the reserve account or, if possible, commit future year funding to preserve the project.

   b. If the cost/annual allocation and/or scope of the project change by more than 10% on any one CMAQ funded project, the locality/agency should notify the TTAC and HRTPO Board with a request and justification for a change in funding and/or scope. The TTAC

and HRTPO Board must review the request and may recommend one or any combination of the following:

i. Scale back the project
ii. Use local funds
iii. Use CMAQ reserve account funds
iv. Use existing CMAQ funds from another project
v. Use future CMAQ allocations
vi. Use future non-CMAQ funds
vii. Drop the project

6. Policy for handling surplus CMAQ allocations on completed or canceled projects:
While the handling of surplus CMAQ allocations on completed or canceled projects may be determined by the TPS, TTAC, and HRTPO Board on a case by case basis, in general, if there are unused CMAQ funds allocated to a project that has been completed or canceled, the transfer of the available funds will be handled as follows:

Within 180 days after a project has been completed (VDOT C5 form processed and final reimbursement received or equivalent from other agencies) or canceled:

a. The project sponsor (locality or agency) will request that the available funds be transferred to one or more of the sponsor's previously approved CMAQ projects, depending upon the type of funds available; or

b. The project sponsor (locality or agency) will request that the available funds be transferred to the CMAQ reserve account.

## APPLICATION PROCESS AND PRELIMINARY SCREENING

The HRTPO staff provides standard application forms for submitting CMAQ project proposals. These forms are made available in electronic format and on the HRTPO web site. Eligible applicants submit completed forms to HRTPO staff within a set time schedule. Projects are screened using the following criteria:

- Must meet all applicable FAST Act requirements
- Must be consistent with the current HRTPO LRTP
- Must be well defined
- Reasonable data (including data required for the emissions analysis) and cost estimates must be provided
- Must meet criteria approved by the HRTPO Board

## EMISSIONS ANALYSIS OF ELIGIBLE PROJECTS

The HRTPO staff performs an emissions analysis on all eligible projects. Emissions are estimated for volatile organic compounds (VOC) and nitrogen oxides ($NO_x$). Analysis results are tabulated for the eligible projects.

## PROJECT RANKING

Projects are ranked based on their cost-effectiveness ratios for VOC and $NO_x$ reduction. Each project is analyzed to estimate the impact of the project on VOC and $NO_x$ emissions. The cost per reduction of emissions is computed using the total cost of each project and annualizing the cost over the effective life of the project. Once all of the projects are analyzed, they are scored on the basis of their cost effectiveness ratios. In the cost-effectiveness analysis, the amount of emissions reduction per dollar spent is computed for VOC and $NO_x$. A score is then applied for each of these criteria. The two scores are combined to form a composite score. Finally, the projects are sorted by composite score – lower composite scores indicating greater cost effectiveness.

## PROJECT SELECTION

The Transportation Programming Subcommittee (TPS) reviews the ranked, eligible CMAQ projects and makes recommendations to the TTAC. Projects are selected based upon:

- Project Score/Ranking
- Funding Availability
- Other Criteria (prior commitment, federal mandates, etc.)

## CMAQ ANALYSIS METHODOLOGIES

Projects proposed for CMAQ funding are analyzed for their effectiveness in reducing emissions of VOCs, also known as hydrocarbons, and $NO_x$. The analysis methodologies for various types of CMAQ projects were originally developed in 1993. Over the years the methodologies have been reviewed and revised, as necessary. For the purposes of this guide, CMAQ projects generally fall into the following three groups:

A. Highway Projects
B. Non-Highway Projects
C. Other Projects including Intelligent Transportation System

## A. HIGHWAY PROJECTS

Highway Projects include improvements to traffic signal timing and intersection/interchange geometric design, upgrades to traffic signal systems, and Intelligent Transportation System (ITS) projects. Analysis methodologies vary depending on the type of project being evaluated. A brief description of the analysis methodologies used for each type of highway project is included below.

### ISOLATED INTERSECTION ANALYSIS

This project type refers to improvements at individual intersections. The project may include improvements in the geometric design of the intersection and signal timing, or improvements in signal timing only. The change in emissions for a project is based on the change in delay (in hours per day) at the intersection as a result of the project.

Intersection analysis is performed to compute the intersection delay for the peak hour with and without the project. Then, using the total number of vehicles entering the intersection during the peak hour and the change in intersection delay resulting from the project, vehicle-hours of delay are computed for the peak hour. That value is then converted to vehicle-hours of delay per day by using a seventeen percent conversion factor derived in the Cost/Benefit Model for Intersection Level of Service Improvements, a study published by the HRPDC in June 1997. The Idle Emissions Factors are applied to the vehicle-hours of delay per day to compute the change in emissions of VOC and $NO_x$ for the intersection in units of kilograms per day.

### CORRIDOR IMPROVEMENTS (NO CAPACITY ADDITIONS)

This type of project includes several intersections along a section of roadway, or corridor, for which the signal timing is coordinated to promote progression of traffic along that section. Most of the projects in this category consist of improvements to signal timing only. The change in emissions for a project is based on the reduction in vehicle delay along the corridor.

The emissions factors are determined by calculating the reduction in delay time as a result of signal retiming. Using the Cost/Benefit Model for Intersection Level of Service Improvements, a study published by the HRPDC in June 1997, a seventeen percent conversion factor is used to convert peak vehicle-hour delay to average daily vehicle-hour delay. The Idle Emissions Factors are applied to the vehicle-hours of delay per day to compute the change in emissions of VOC and NOx for the intersection in units of kilograms per day.

### CITYWIDE SIGNAL SYSTEM IMPROVEMENTS

This type of project includes a large number of intersections within a jurisdiction. Nearly all of the intersections included in this type of project are part of a coordinated signal system. The projects in this category typically include improvements to signal equipment and signal timing. The change in emissions for a project is based on the reduction in vehicle delay resulting from the project.

Due to the large number and variety of intersections typically included in Citywide Signal System projects, HRTPO staff developed three “model” intersections for the purpose of determining the air quality impacts of such projects. The model intersection categories are based on the number of vehicles entering the intersection per peak hour as follows: Low Volume (<2,690 vehicles per peak hour), Medium Volume (2,690 – 5,900 vehicles per peak hour), and High Volume (>5,900 vehicles per peak hour). Using information provided by the applicant on the number of intersections in the project that fall into each of the model intersection categories, HRTPO staff computes the estimated reduction in vehicular delay for the project.

### INTELLIGENT TRANSPORTATION SYSTEMS

A wide array of projects are classified as ITS projects, including Advanced Traffic Management Systems, variable message signs, communications, incident management and other innovative applications that take advantage of new technologies to help improve traffic flow, safety, driver information and, often as a result, air quality. Analysis methodologies for ITS projects are usually project-specific and may be qualitative or quantitative depending on the type of project and the availability of input data.

## B. NON-HIGHWAY PROJECTS

### TRANSIT AND FIXED GUIDEWAY PROJECTS

Transit projects include Park and Ride Lots, Replacement Buses, and New/Expanded Transit Services. Fixed Guideway projects include High Speed Rail, Intercity Passenger Rail, Light Rail, Bus Rapid Transit, Station Development and Vehicle Upgrades. Emissions benefits for most transit projects are based on the predicted reduction in automobile trips and VMT resulting from the project. Projects that involve new or expanded service also take into account the increase in emissions due to the "new" transit vehicles on the road. Park and ride lot projects take into account the emissions due to the automobile trips to the lot. Emissions reductions resulting from replacement buses are due to emissions improvements in the newer bus engines and any increases in ridership due to newer vehicles.

### BIKEWAY PROJECTS

Air quality benefits of bikeway projects are calculated as a function of a reduction in the number of automobile trips and VMT. Specifically, emissions reductions are based on cold start and hot soak emissions produced at the beginning and end of a trip, respectively. The methodology is based on Census data for Hampton Roads, results from the regional model and a review of CMAQ studies conducted in different regions of the country. The Cost/Benefit Analysis of Bicycle Facilities tool based on the Guidelines for Analysis of Investments in Bicycle Facilities (NCHRP Report #552) was used to determine the reduction of vehicle trips attributable to a given bikeway.

## C. OTHER PROJECTS

The "Other" group includes projects that may not fit perfectly within the Highway or Non-Highway groups. Innovative projects in this group may include alternative fuels, truck idling controls, early engine retirement programs, vehicle to infrastructure communications equipment, and Intermodal freight projects, among others.

# APPENDIX B – RSTP POLICIES, PROCEDURES AND ANALYSIS METHODOLOGIES

## PROGRAM CRITERIA AND FUNDING POLICIES

### FUNDING PROGRAM CRITERIA:

- Must meet all applicable federal regulations and requirements.
- Must be consistent with the current HRTPO LRTP.
- RSTP funds should play a significant role in the region's transportation system generally affecting two or more localities.
- The region could use RSTP funds to implement a regional project that would have a low probability of funding under the current allocation program.
- Substantial RSTP funds will not be used for interstate improvements.
- RSTP funds should be used for projects that are un-fundable by a locality or present funding sources.
- In many cases, full funding may not be achieved; however, multiple years of supplemental funding will enable the region to fund these projects at a significant level.
- Projects should be of regional significance.
- Finance ITS improvements.
- Finance new regionally significant projects when substantive progress can be made as a result of RSTP funding.

### FUNDING POLICIES:

1. Priority for new RSTP allocations will be given in the following order:
   a. Previously approved and underway RSTP project phases will be funded to completion.

   b. Other on-going project phases eligible for RSTP funding will be evaluated in order to be considered.

   c. Unfunded and new candidate projects will be evaluated and ranked in order to be considered.

2. Establish a reserve account of approximately 5% of the RSTP mark per fiscal year to cover potential cost overruns or future reductions in marks. The reserve amount for a particular year should be allocated by the end of that fiscal year.

3. Program six years of RSTP preliminary allocations in accordance with project schedules and estimates. Allocate funds consistent with how they will be obligated and expended.

4. Considerations for funding cost overruns:
   a. If the cost/annual allocation and/or scope of a project change less than 10% on any one RSTP funded project, the locality/agency should notify the TTAC with a request and justification for a change in funding. The TTAC must review the request and recommend use of the reserve account or if possible commit future year funding to preserve the project.

b. If the cost/annual allocation and/or scope of the project change by more than 10% on any one RSTP funded project, the locality/agency should notify the TTAC and HRTPO Board with a request and justification for a change in funding and/or scope. The TTAC and HRTPO Board must review the request and may recommend one or any combination of the following:

   i. Scale back the project
   ii. Use local funds
   iii. Use RSTP reserve account funds
   iv. Use existing RSTP funds from another project
   v. Use future RSTP allocations
   vi. Use future non-RSTP funds
   vii. Drop the project

5. Policy for handling surplus RSTP allocations on completed or canceled projects:
While the handling of surplus RSTP allocations on completed or canceled projects may be determined by the TPS, TTAC, and HRTPO Board on a case by case basis, in general, if there are unused RSTP funds allocated to a project that has been completed or canceled, the transfer of the available funds will be handled as follows:

   Within 180 days after a project has been completed (VDOT C5 form processed and final reimbursement received or equivalent from other agencies) or canceled:

   a. The project sponsor (locality or agency) will request that the available funds be transferred to one or more of the sponsor's previously approved RSTP projects, depending upon the type of funds available; or

   b. The project sponsor (locality or agency) will request that the available funds be transferred to the RSTP reserve account.

## APPLICATION PROCESS AND PRELIMINARY SCREENING

The HRTPO staff provides standard application forms for submitting RSTP project proposals. These forms are made available in electronic format and on the HRTPO website. Eligible applicants submit completed forms to HRTPO staff within a set time schedule. Projects are screened using the following criteria:

- Must meet all applicable FAST Act requirements
- Must be consistent with the current HRTPO LRTP
- Must be well defined
- Reasonable data and cost estimates must be provided
- Must meet criteria approved by the HRTPO Board

## PROJECT EVALUATION AND METHODS

RSTP Projects generally fall into the following six categories:

1. **Highway Capacity, Accessibility and Operational Improvements**, including:
    - Roadway Widening
    - New Facilities
    - HOV Lanes
    - New Interchange
    - Intersection/Interchange Improvements
    - Corridor Operational Improvements
    - Bridge Rehabilitation

2. **Intermodal Transportation Projects**, including:
    - Passenger facilities
    - Freight facilities

3. **Transit and Fixed Guideway Projects**, including:
    - New Service
    - Expansion of Existing Service
    - Bus Shelters/Facilities
    - Vehicle Replacement/Purchase
    - Fixed Guideway
    - Other Transit and ITS Projects
    - High Speed Rail
    - Intercity Passenger Rail
    - Light Rail
    - Station Development
    - Vehicle Upgrades

4. **Planning Studies**, including:
    - Alternatives Analysis
    - Other Planning Studies

5. **Transportation Demand Management Projects**, including:
    - Regional Rideshare
    - Marketing and Outreach Program
    - HOV Express Bus Service
    - Park-and-Ride Lots

6. **Intelligent Transportation Systems**

The HRTPO staff evaluates all projects according to the criteria developed by the TTAC and approved by the HRTPO Board. The staff prepares a list of candidate projects that have been scored and ranked. Projects with insufficient data or late submittals are excluded from the process. The list of projects is then submitted to the TPS for review.

## PROJECT SELECTION

The TPS reviews the ranked sets of eligible RSTP projects and makes recommendations to the TTAC. Projects are selected based upon:

- Project Score/Ranking
- Funding Availability
- Other Criteria (prior commitment, federal mandates, etc.)

## RSTP PROJECT EVALUATION METHOD BY PROJECT CATEGORY

**Table 1**

| Project Category | Evaluation Method |
|---|---|
| **Highway Capacity, Accessibility and Operational Improvements**<br>• Roadway widening, new facilities, HOV lanes, new interchanges, intersection improvements<br>• Corridor operational improvements<br>• Bridge rehabilitation | • HRTPO Project Prioritization Tool |
| **Intermodal Transportation Projects**<br>• Intermodal facilities | • See Table 2 |
| **Transit and Fixed Guideway**<br>• New service, expansion of service, shelters and facilities (bus, HOV express)<br>• Vehicle replacement/purchase<br>• Other transit and ITS projects<br>• Fixed Guideway (High Speed Rail, Intercity Passenger Rail, Light Rail, Station Development, Vehicle Upgrades) | • See Table 3<br><br>• See Table 4<br>• See Table 5 |
| **Planning Studies**<br>• Alternatives Analysis<br>• Feasibility Studies | • See Table 6 |
| **Transportation Demand Management**<br>• Regional rideshare<br>• Marketing & outreach<br>• HOV lane express bus service<br>• Park and Ride Lots | • See Table 7 |
| **Intelligent Transportation Systems** | • See Table 8 |

## INTERMODAL TRANSPORTATION PROJECTS

**Table 2** | *Intermodal Facilities*

| Evaluation Consideration | Points |
|---|---|
| Will the project establish opportunities for linkages or connections between transportation modes or existing corridors or centers? | Up to 40 points |
| Will the project improve the operating system to better accommodate intermodal movements? | Up to 25 points |
| Will the project improve rail or vehicular access to freight distribution facilities, ports, or major industrial clients? | Up to 25 points |
| Project Readiness<br>Projects with detailed design and cost estimates that are ready to go will receive 10 points | Up to 10 points |

## TRANSIT AND FIXED GUIDEWAY

**Table 3** | *New Service, Expansion of Existing Service, Passenger Facilities, High-Speed Rail, Intercity Passenger Rail, Light Rail, Station Development, Vehicle Upgrades, etc.*

| Evaluation Criteria | Points | Scoring Instructions |
|---|---|---|
| Congestion relief | 0-10 | Impacts of new/expanded service on area highways – 10 points to the project with the highest % of trips removed from highways; 0 points to the project with no impact on adjacent highway. |
| Facility Usage – Daily Ridership | 0-20 | Relative Scale<br>Highest ridership=20 points<br>Lowest ridership=0 points |
| Cost Effectiveness – Subsidy/ passenger (or use other FTA formula depending on the project) | 0-20 | Relative scale<br>Lowest subsidy/passenger=20<br>Highest subsidy/passenger=0 |
| Air Quality | 0-20 | $NO_x$ reductions=10<br>HC reductions=10 |
| Coverage Area | 0-20 | Relative scale - Population and Employment data. |
| Project Readiness | 0-10 | Projects with detailed design and cost estimates that are ready to go will receive 10 points |

**Table 4** | *Vehicle Replacement/Purchase*

| Evaluation Criteria | Points | Scoring Instructions |
|---|---|---|
| Average age of the vehicles | 30 | FTA standard=12 years |
| % of vehicles in fleet over 12 years old | 20 | |
| Emissions changes of the old and new vehicles | 20 | |
| Anticipated average daily ridership of new vehicles | 15 | Cost/Ridership |
| Average mileage of the vehicles to be replaced | 15 | FTA Standards |

**Table** 5 | *Other Transit, Other Fixed Guideway and Transit ITS Projects*

| Evaluation Consideration | Points |
|---|---|
| Will the project increase service reliability of the transit system? | 0-25 |
| Will the project improve passenger safety, comfort and convenience? | 0-30 |
| Does the project improve efficiency of the transit system? | 0-10 |
| Does the project improve the revenue collection? | 0-25 |
| Does the project improve transit data collection system? | 0-10 |

## PLANNING STUDIES

**Table 6** | *Alternatives Analysis and Feasibility Studies*

| Evaluation Consideration | Points | Yes or No |
|---|---|---|
| 1. Is the study necessary to address a major issue or to revise the LRTP? | 0-25 | |
| 2. Is the study necessary to address a safety issue? | 0-15 | |
| 3. Is the study concerned with encouraging multimodal transportation? | 0-10 | |
| 4. Does the study address the mobility or accessibility needs of the region? | 0-20 | |
| 5. Is the study well defined in terms of purpose, design concept and scope? | 0-10 | |
| 6. Do the goals and objectives of the study show support for economic development? | 0-10 | |
| 7. Do the goals and objectives demonstrate preservation or protection of the environment? | 0-10 | |

## TRANSPORTATION DEMAND MANAGEMENT

**Table 7** | *Regional Rideshare, Marketing & Outreach, HOV Lane Express Bus Service, Park-and Ride Lots, Telecommuting, etc.*

The TDM Committee developed the following criteria. Measures will be evaluated against the base year's figures (TDM Manager will provide appropriate data for base and target years).

| Measures of Success | Base Year | Target Year |
|---|---|---|
| Number of employers offering some TDM programs | | |
| % of employees ridesharing (car, van, bus) | | |
| % of employees walking or biking | | |
| Number of contacts made | | |
| Parking Management (availability, price, zoning requirements) | | |
| Mixed use land use (trip reduction) | | |
| HOV usage/ Vehicle occupancy rates | | |
| Other measures | | |

## INTELLIGENT TRANSPORTATION SYSTEMS

**Table 8** | *Intelligent Transportation Systems Projects*

| Evaluation Consideration | Points |
|---|---|
| Will the project improve traffic flow during peak congestion periods and special events? | 0-15 |
| Will the project directly reduce the number or severity of accidents, which occur on roadways? | 0-25 |
| Will the project improve level of service, increase service capacity, or contribute to incident management? | 0-20 |
| Does the project address the mobility or accessibility needs of the region? | 0-10 |
| Does the project improve the linkage and communications among various operating agencies to provide better and accurate traffic information to the motorists? | 0-20 |
| Is the project part of the Regional ITS Strategic Plan? | 0-10 |