

2015-2018 Regional Flexible Fund Allocation - Regional Programs Application

Program Name: Regional Mobility Program

I. Program Description

The Regional Mobility program coordinates both the planning and implementation of the region's transportation system management and operations (TSMO) strategies to enhance multimodal mobility for people and goods. Metro serves as the lead agency for this program. Its activities focus on proactive management of the multimodal transportation system through:

- Multimodal traffic management strategies to reduce travel times and vehicle emissions;
- Traveler information to help system users make informed decisions and avoid congestion; and
- Traffic incident management to reduce crashes and delay, and improve traveler safety

The program also supports the implementation of the region's Congestion Management Process (CMP) by implementing lower cost, high benefit operational improvements for congestion and safety; and by enhancing the region's real-time data collection capabilities in support of performance monitoring. The Regional Mobility program activities are guided by TransPort, the regional coordinating committee for system management and operations. Also, the program works closely with the Regional Travel Options program to enhance opportunities for coordination and collaboration on multimodal management strategies.

The genesis for the Regional Mobility Program was a 2005 grant from the Federal Highway Administration's Office of Operations for a demonstration of the Regional Concept of Transportation Operations for regional TSMO coordination. This successful demonstration project led to the creation of the region's first TSMO plan, a strengthening of RTP policy for system management and three rounds of Regional Flexible Fund allocations that have yielded nine million dollars in funding dedicated to enhancing TSMO.

II. Regional Implementation Context

The 2035 Regional Transportation Plan includes performance targets that chart progress in creating and maintaining a quality transportation system. Strategic TSMO investments, both standalone and in combination with other infrastructure investments, directly contribute to the advancement of regional transportation goals and targets.

<i>RTP Performance Target or RTP Performance Measure (select at your discretion)</i>	<i>RTP Goals</i>	<i>How Program Addresses Policy Objectives</i>
Safety - By 2035, reduce the number of pedestrian, bicyclist, and motor vehicle occupant fatalities plus serious injuries each by 50% compared to 2005.	Enhance Safety & Security	TSMO strategies like enhanced traffic incident response and variable speed limits reduce primary and secondary crash rates and decrease the severity of crashes. By addressing safety concerns, the human and financial costs of incidents are reduced
Congestion - By 2035, reduce the vehicle hours of delay (VHD) per person by 10% compared to 2005.	Emphasize Effective and Efficient Management of the Transportation System	Investments such as updating traffic signal hardware, signal timing and/or adding traffic responsive signal systems reduce delays and travel times for all modes. A regional project that upgraded hardware and signal timing on key arterials reduced mainline travel time by up to 20%. The city of Gresham's adaptive signal project realized a 16% decrease in average travel time on E. Burnside Rd.
Freight Reliability - By 2035, reduce vehicle hours of delay truck tri by 10% compared to 2005.	Sustain Economic Competitiveness and Prosperity	Priority truck signals extend green time for trucks on key freight routes to enhance safety, decrease travel time and reduce idling at intersections.
Climate Change - By 2035, reduce transportation-related carbon dioxide emissions by 40% below 1990 levels.	Promote Environmental Stewardship	Regular updates to traffic signal timing reap significant CO ₂ reductions, resulting in health and environmental benefits across the region. In 2002, the City of Portland retimed 145 traffic signals and within six years reduced 157,000 metric tons of CO ₂ , equivalent to taking 30,000 vehicles off the road.
Active Transportation - By 2035, triple walking, biking, and transit mode share compared to 2005.	Expand Transportation Choices	Investments in bicycle detection and walk countdown timers can reduce travel times for cyclists and pedestrians. Transit riders benefit from transit signal priority that extends signal green time to maintain on-time vehicle performance.
Clean Air - By 2035, ensure zero percent population exposure to at-risk levels of air pollution.	Enhance Human Health	TSMO strategies better management roadway to reduce idling and optimize travel flow resulting in decreased vehicle emissions and fuel consumption.

<i>RTP Performance Target or RTP Performance Measure (select at your discretion)</i>	<i>RTP Goals</i>	<i>How Program Addresses Policy Objectives</i>
Travel - By 2035, reduce vehicles miles traveled per person by 10% compared to 2005.	Expand Transportation Choices Emphasize Effective and Efficient Management of the Transportation System	Good, multimodal traveler information helps people make better decisions about their mode of travel, route choice and what time they travel. Use of TriMet’s web-based Transit Tracker increased 81% between 2010 and 2012. A 2010 ODOT survey found that 62% of commuters changed their start time based on information provided on the TripCheck.org website.

III. Recent Policy Work

A safe, efficient and reliable transportation system requires investment in strategies to manage and operate the multimodal transportation network. With the 2010 adoption of the 2035 Regional Transportation Plan (RTP), the region elevated its policy directive to proactively manage the transportation system to make a smoother travel experience for people and goods. In conjunction with the 2035 RTP, the region adopted the Regional Transportation Management and Operations (TSMO) Plan, a 10-year guide for strategic investment in multimodal management and operation strategies. The strategy focuses on four investment areas – multimodal traffic management, traffic incident management, traveler information and transportation demand management (TDM) – identifying both programmatic and infrastructure investments. The Regional Mobility program covers the first three of these areas collectively referred to as Transportation System Management (TSM). The Regional Travel Options (RTO) program is specifically focused on the TDM investments.

The Regional TSMO Plan is the basis for evaluation and selection of projects funded by the Regional Flexible Fund Allocation of MTIP as well as STIP and other targeted grant opportunities that arise like the American Recovery and Reinvestment Act.

A copy of the Regional TSMO Plan and Executive Summary can be found at www.oregonmetro.gov/regionalmobility.

IV. Regional Funding Context

TSMO is distinct from other types of transportation investment. Successfully managing a regional transportation system depends on collaboration and coordination across traditional jurisdictional and organizational boundaries to plan, operate and maintain TSMO systems. Historically, these investments have not competed well against traditional capital infrastructure investments in the RFFA process. JPACT and Metro Council recognized this distinction and confirmed the region’s commitment to proactive management of the

transportation system by dedicating a portion of its federal transportation funding allocation to investments specifically targeted to regional TSMO enhancements.

To date, the region has supported TSMO allocations in the 2010-11, 2012-13 and 2014-15 MTIP years totaling nine million dollars. These funds have been sub-allocated to a combination of region wide and corridor specific projects that involve multiple partners. The following is a list of the MTIP funded TSMO projects planned or underway by funding cycle.

FY 2010 – 2011

PORTAL Data Archive	\$ 203,000	Ongoing
Arterial Performance Management RCTO	\$ 150,000	Phase I Complete
Canyon Rd/Beaverton Hillsdale Hwy Adaptive Signal System	\$ 750,000	Underway
Active Corridor Management on Powell/Glisan/Sandy/ Division/NE SE 122nd/I-84 (Preliminary Engineering)	\$ 500,000	Underway

FY 2012 – 2013

PORTAL Data Archive	\$ 200,000	Ongoing
Trip Check Enhancement for Arterial Travel Information	\$ 300,000	Planned
ITS Network Upgrade	\$ 47,000	Planned
Tualatin-Sherwood Rd Active Traffic Management Ph II (Preliminary Engineering and Construction)	\$1,850,000	Underway
Active Corridor Management (Construction) (Powell/Glisan/Sandy/Division/NE SE 122nd/I-84)	\$1,400,000	Planned
East Metro Connections ITS	\$ 200,000	Planned
Regional Traffic Signal System Software Upgrade	\$ 100,000	Planned
Bi-state I-5 and I-205 Travel Time Signage	\$ 200,000	Planned

FY 2014 – 2015

PORTAL Data Archive	\$ 250,000	Ongoing
Regional TSMO Policy and Grant Coordination	\$ 120,000	Ongoing
Regional ITS Architecture Update	\$ 50,000	Planned
Regional ITS Communications Master Plan	\$ 50,000	Planned
Regional ITS Communications Infrastructure Update	\$ 530,000	Planned
Sunnyside Rd Adaptive Signal System (Preliminary Engineering and Construction)	\$ 500,000	Planned
N/NE Columbia Blvd Traffic and Transit Signal Upgrade (Preliminary Engineering and Construction)	\$ 500,000	Planned
Upper Boones Ferry Rd Active Corridor Management (Preliminary Engineering and Construction)	\$ 600,000	Planned
Cornell Rd/Cornelius Pass Rd Adaptive Signal Expansion	\$ 400,000	Planned

V. Major Accomplishments

Following is a list of recent accomplishments for regional TSMO implementation.

- Completed sub-allocation process for TSMO regional and corridor projects for the FY 2012-15 MTIP.

- Established an on-going allocation of TSMO MTIP funds to support maintenance and enhancements to PORTAL, the region's web-based transportation data archive housed at Portland State University.
- Completed the *Portland Regional Arterial Traffic Control Enhancement Project*, a \$3.37 million American Recovery and Reinvestment Act project that upgraded signal hardware at 290 intersections and updated timing plans at 160 intersections.
- Completed Phase I of the *Multimodal Arterial Performance Management Regional Concept of Traffic Operations* project to develop an arterial data collection system utilizing existing and enhanced traffic control devices. This project was funded by MTIP.
- Completed the *Multimodal Data Set Clean-up for Portland Oregon Metropolitan Region* project in partnership with Portland State University, TriMet and the City of Portland. The project was funded by FHWA's Real-Time Data Capture and Management Program.
- Provided on-going support for regional coordination activities through TransPort, the regional TSMO committee.
- Coordinated TSMO professional development and training opportunities. Since 2007, the region has hosted and benefited from ten TSMO-focused FHWA hosted events ranging from a workshop on traffic incident management to systems engineering process training.

VI. Opportunities

The Regional Mobility Program is in its youth. While the region has actively used the Regional TSMO Plan as its road map for investing, many of the investments programmed to date are just underway or still in the planning stage. The benefits of intentional and active management of the regional transportation system are still emerging. The upside is the tremendous potential for improving conditions for the traveling public with TSMO solutions. Continued investment in creating a 21st multimodal traffic management system means upgrading existing equipment, refreshing signal timing at regular intervals, and maximizing data collection capabilities. Enhancing traveler information means harnessing system data to provide real-time information for both pre-trip and en route travel for all modes. Improving traffic incident management means investing in cameras and sensors for faster detection, employing active traffic management techniques like variable speed limits, and improving inter-agency communication to reduce incident-related congestion and restore system capacity as quickly as possible.

With the recent passage of the Moving Ahead for Progress in the 21st Century (MAP-21) legislation, the Regional Mobility Program is poised to be integral for meeting the new requirements for performance-based planning. The program supports both the development of data necessary to measure system performance as well as projects that contribute to congestion management for system users.

VII. Proposed Regional Allocation Request

Requested amount: \$3,000,000

Guided by the Regional TSMO Plan, the allocation will continue to implement major initiatives under Multimodal Traffic Management and Traveler Information investment areas. TPAC and TransPort will direct the sub-allocation of these funds to individual projects through an evaluation process.