Agenda



Meeting:			ТРАС							
Date: Time:			Friday, January 27, 2017 9:30 a.m. to noon							
Place:			Council Chamber							
0.00.414										
9:30 AM	1.		CALL TO ORDER AND DECLARATION OF A QUORUM	Tom Kloster, Chair						
9:35 AM	2.		 COMMENTS FROM THE CHAIR AND COMMITTEE MEMBERS Welcome TPAC new community representatives: Glenn Koehrsen, Tyler Bullen, Alfred McQuarters RFFA active transportation project development Regional Leadership Forum #3 Regional SRTS program RTP Technical Work Group Meetings Update 	Tom Kloster, Chair						
9:40 AM	3.		CITIZEN COMMUNICATIONS ON AGENDA ITEMS							
9:45 AM	4.	*	CONSIDERATION OF THE TPAC MINUTES FOR JANUARY 6, 2017							
9:50 AM	5.	*	 REGIONAL FLEXIBLE FUND ALLOCATION MTIP FORMAL AMENDMENT 17-01F - Purpose: Review and recommend Resolution 17-4766 to allow two new projects to be added to the approved 2015- 18 MTIP. <u>Recommendation</u> 	Ken Lobeck, Metro						
10:10	6.	#	 DRAFT 2017-2018 UNIFIED PLANNING WORK PROGRAM (UPWP) Purpose: Provide an overview of the FY2017-2018 UPWP in compliance with federal transportation planning requirements. <u>Prepare for Recommendation</u> 	Chris Myers, Metro						
10:30	7.	*	 SPECIAL TRANSPORTATION FUND ALLOCATION PROCESS Purpose: Discuss allocation of federal 5310 and state special transportation funds for fiscal years 2018 – 2019 <u>Information/Discussion</u> 	Alan Lehto, TriMet Grace Cho, Metro						
11:00	8.	*	2018 RTP: SYSTEM EVALUATION MEASURES • Purpose: Discuss proposed refinements to the RTP System evaluation measures and provide suggestions for effectively summarizing the recommended measures to policymakers. <u>Information/Discussion</u>	John Mermin, Grace Cho, Metro						
11:30	9.	*	 2018 RTP: VISION ZERO AND SAFETY PLAN UPDATE Purpose: Provide an update and receive input from TPAC on the Vision Zero target and update of the Safety Plan. Information/Discussion 	Lake McTighe, Metro						

12:00 10. ADJOURN

Tom Kloster, Chair

Upcoming TPAC Meetings: Friday, February 24, 2017 Friday, March 31, 2017 Friday, April 28, 2017 	 Material will be emailed with meeting notice Material will be emailed at a later date after notice Material will be distributed at the meeting. For agenda and schedule information, call 503-797-1839.
	To check on closure/cancellations during inclement weather please call 503-797-1700.

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2017 TPAC Work Program

As of 1/20/17

NOTE: Items in italics are tentative; bold denotes required items

January 27, 2017	February 24, 2017
 MTIP Formal Amendment 17-01F - <u>Recommendation</u> (Lobeck; 20 min) 	• Final Unified Planning Work Program (UPWP) 2017- 2018 <u>Recommendation to JPACT</u> (Myers; 15 min)
 Draft Unified Planning Work Program (UPWP) 2017-2018 Information/Discussion (Myers; 20 min) Special Transportation Fund Allocation Process - Information/Discussion (Cho, Lehto; 30 mins) 2018 RTP: System Evaluation Measures Information/Discussion (Mermin and Cho; 30 min) 2018 RTP: Vision Zero and Safety Crash Data Analysis Information/Discussion (McTighe; 30 mins) 	 2017 MPO Endorsement Process for National Grants Approaches and Criteria Recommendation to JPACT (Cho, 25 min) Division BRT Locally Preferred Alternative Resolution/RTP Amendment Introduction Information/Discussion (Mros -O'Hara, 30 mins) 2018 RTP: Regional Transit Strategy Vision Information/Discussion (Snook, 30 mins) 2018 RTP: Building the RTP Investment Strategy Revenue Forecast Call for Projects Intro/Prepare for Recommendation (Ellis, 45 min.)
March 31, 2017	April 28, 2017
 Designing Livable Streets Update <u>Information/Discussion</u> (McTighe, 30 min.) 2018 RTP: Regional Freight Plan <u>Information/Discussion</u> (Collins, 30 min.) 2018 RTP: Building the RTP Investment Strategy <u>Recommendation to JPACT</u> (Ellis, 45 min.) Regional SRTS program. <u>Information/Discussion</u> Kaempff, 40 mins) 	 Division BRT Locally Preferred Alternative Resolution/RTP Amendment <u>Recommendation to JPACT</u> (Mros -O'Hara, 20 mins) <i>MAP-21 Update <u>Information/Discussion</u> (Frisbee; 20 mins)</i> 2018 RTP Call for Projects <u>Information/Discussion</u> (Ellis; Lobeck 30 mins)
<u>May 26, 2017</u>	<u>June 30</u>
• 2018 RTP: Digital Mobility <u>Information/Discussion</u> (Frisbee, 20 min.)	•
 2018 RTP: Resiliency <u>Information/Discussion</u> (Frisbee, 20 min.) 	

Parking Lot

- TAP project delivery contingency fund pilot update (Leybold, Cho)
- Vehicle Electrification Project Options Information/Discussion (Leybold, Winter)
- Federal Training Group Concept (Lobeck)
- Metro/TriMet RFFA Bond Agreement (Leybold)

For agenda and schedule information, call Lisa Hunrichs at 503-797-1839. e-mail: lisa.hunrichs@oregonmetro.gov To check on closure or cancellations during inclement weather please call 503-797-1700.



2017 JPACT Work Program

As of 01/20/17

Items in italics are tentative; **bold** denotes required items

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<u>February 16, 2017</u>	<u>March 16, 2017</u>
• Chair comments TBD (5+ min)	• Chair comments TBD (5+ min)
 Resolution No. 17-4766, For the Purpose of Amending the 2015-18 Metropolitan Transportation Improvement Program (MTIP) to Include TriMet's New Open Trip Planner and Low or No Emission (Low-No) Bus Program Projects (consent) – Recommendation 	 Draft Unified Planning Work Program (UPWP) 2017-2018 – Information/Discussion (Chris Myers, Metro; 15 min) 2018 RTP: Regional Transit Vision (Jamie Snook, Metro; 30 min)
 Special Transportation Fund/5310 Allocation/Process – Information/Discussion (TriMet; 10 min) 	 Powell-Division Transit LPA and RTP Amendment – Recommendation (Elizabeth Mros-O'Hara, Metro; 30 min)
 2018 RTP Update: Building the RTP Investment Strategy – Information/Discussion (Ellis, Metro; 40 min) 	
 2018 RTP Update: Vision Zero and Safety Crash Data Analysis – Information/Discussion (Lake McTighe, Metro; 20 min) 	
 JPACT Legislative Agenda – Action (Noah Siegel, Metro; 15 min) 	
<u>Jan. 30, 7:30-9am:</u> JPACT Finance Subcommittee <u>Feb. 25 – Mar. 1:</u> National Association of Counties	<u>Mar. 11-15:</u> National League of Cities Conference, Washington, D.C.
Legislative Conference, Washington, D.C.	<u>Mar. 26-31:</u> Spring Break
<u>April 20, 2017</u>	<u>May 18, 2017</u>
• Chair comments TBD (5+ min)	• Chair comments TBD (5+ min)
 Draft Unified Planning Work Program (UPWP) 2017-2018 – Recommendation (Chris Myers, Metro; 10 min) 	 Powell-Division Transit LPA and RTP Amendment – Recommendation (Elizabeth Mros-O'Hara, Metro; 40 min)
• 2018 RTP Update: Building the RTP Investment Strategy – Recommendation (Ellis, Metro; 45 min)	
• 2018 RTP: Regional Freight Plan Update (Tim Collins, Metro; 20 min)	

June 15, 2017	<u>July 20, 2017</u>
• Chair comments TBD (5+ min)	• Chair comments TBD (5+ min)
2018-2021 Metropolitan Transportation Improvement Program (MTIP) –	• 2018 RTP: Digital Mobility (Ellis, Metro; TBD)
Information/Discussion (Ted Leybold/Grace	• 2018 RTP: Resilience (Ellis, Metro; TBD)
Cho, Metro; TBD)	 2018-2021 Metropolitan Transportation Improvement Program (MTIP) – Recommendation (Ted Leybold /Grace Cho, Metro; TBD)
<u>August 17, 2017</u>	<u>September 21, 2017</u>
• Chair comments TBD (5+ min)	• Chair comments TBD (5+ min)
October 19. 2017	November 16, 2017
Chair comments TBD (5+ min)	• Chair comments TBD (5+ min)
	• 2018 RTP: Analysis Findings and Background on Regional Leadership Forum #4 (Ellis, Metro; TBD)
December 21, 2017	
• Chair comments TBD (5+ min)	
• Chair comments TBD (5+ min)	

<u>RTP Regional Leadership Forums:</u>

- April 2016: RTP Regional Leadership Forum #1 (Exploring Big Ideas for Our Transportation Future)
- September 2016: RTP Regional Leadership Forum #2 (Building the Future We Want)
- December 2016: RTP Regional Leadership Forum #3 (Connecting Our Priorities to Our Vision)
- **December 2017**: RTP Regional Leadership Forum #4 (Drafting Our Shared Plan for the Region)
- **June 2018**: RTP Regional Leadership Forum #5 (Finalizing Our Shared Plan for the Region)

Parking Lot:

- Southwest Corridor Plan
- Land use & transportation connections
- Prioritization of projects/programs
- Westside Freight Study/ITS improvements & funding
- All Roads Safety Program (ODOT)
- Air Quality program status update
- Washington County Transportation Futures Study (TBD)



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TRANSPORTATION POLICY ALTERNATIVES COMMITTEE January 6, 2017 Metro Regional Center, Council Chamber

<u>MEMBERS PRESENT</u>	<u>AFFILIATION</u>
Tom Kloster, Chair	Metro
Don Odermott	Cities of Hillsboro and Washington County
Katherine Kelly	Cities of Gresham and Multnomah County
Nancy Kraushaar	City of Wilsonville and Cities of Clackamas County
Judith Gray	City of Portland
Eric Hesse	TriMet
Dave Nordberg	ODEQ
Joanna Valencia	Multnomah County
Steve Williams	Clackamas County
Chris Deffebach	Washington County
MEMBERS EXCUSED	AFFILIATION
Patricia Kepler	Community Representative
Heidi Guenin	Community Representative
Lynda David	SW Washington Regional Transportation Council
Charity Fain	Community Representative
Michael Williams	WSDOT
Rachel Tupica	Federal Highway Administration
ALTERNATES PRESENT	AFFILIATION
Phil Healy	Port of Portland
Jon Makler	ODOT

<u>Guests Present</u>: Lloyd Purdy, City of Tigard; Dayna Webb, City of Oregon City; Zoe Monahan, City of Tualatin; Mark Lear, PBOT, Kari Schlosshauer, SRTS.

<u>Metro Staff Present</u>: Dan Kaempff, Ted Leybold, Lake McTighe, Mike Serritella, Chris Myers, Grace Cho, Ken Lobeck, Tyler Frisbee, Noelle Dobson, Tim Collins

1. CALL TO ORDER AND DECLARATION OF A QUORUM

Chair Kloster called the meeting to 9:30 a.m. and declared a quorum was present.

2. COMMENTS FROM THE CHAIR AND COMMITTEE MEMBERS

- Chair Kloster announced that three new TPAC members have been recruited and appointments will be confirmed on January 26.
- Mr. Jon Makler noted that some highway project development projects which have received FASTLANE grants (for example, one of the I-205 projects) will require some RTP amendments

as they are not in the current financially constrained 2014 RTP. Metro staff provided clarification and agreed to discuss further with ODOT staff.

3. CITIZEN COMMUNICATIONS ON AGENDA ITEMS

There were no comments.

4. CONSIDERATION OF THE TPAC MINUTES FOR NOVEMBER 18, 2016

<u>MOTION</u>: Mr. Phil Healy moved to approve the TPAC minutes November 18, 2016. Ms. Nancy Kraushaar seconded the motion.

<u>ACTION</u>: The motion <u>passed</u> unanimously.

5. SW CORRIDOR PROJECT AND LRT PLAN UPDATE

Mr. Chris Ford, a Principal Planner and Eryn Kehe, Communications Specialist at Metro, provided an update on the SW Corridor Light Rail project, and an overview of the process to select a locally preferred alternative in 2018. The project is currently entering the National Environmental Policy Act (NEPA) environmental review process.

Background: In 2013, regional leaders on the Southwest Corridor Plan steering committee adopted the Southwest Corridor Plan Shared Investment Strategy. The strategy identified critical strategies for the corridor, including:

- invest in local transit service and high capacity transit
- invest in roadways and active transportation
- invest in parks, trails and nature
- consider new regulations and policies, and develop incentives to promote private investment consistent with community vision
- develop a collaborative funding strategy for the Southwest Corridor Plan

The shared investment strategy continues to be the guiding framework that partners are pursuing to support local land use visions and improve transportation choices and safety for all users.

The Southwest Corridor Light Rail Project that is undergoing federal environmental review focuses on the components of the Southwest Corridor Plan that are specific to designing and constructing a light rail project and those bicycle, pedestrian and roadway projects that are critical to providing safe and reliable access to light rail stations. While most of the work during the environmental review will focus on the Southwest Corridor Light Rail Project, local, regional and state agencies will also continue to work on strategies to implement the comprehensive set of goals and strategies outlined in the Shared Investment Strategy.

Ms. Kehe discussed the public engagement component of the scoping process that preceded environmental review and the process of creating a Community Advisory Committee (CAC), which was appointed by the Southwest Corridor Steering Committee on Dec. 12, 2016. The CAC's role will be to advise the steering committee and project staff by bringing a broad perspective on community and social issues throughout the Southwest Corridor during the review and the selection of a route and station areas. The committee includes balanced representation from communities along the proposed light rail route. Committee members will likely meet monthly beginning in early 2017 through spring 2018.

Mr. Ford noted that activities for 2017 include:

- Preparation of the Draft Environmental Impact Statement Identify significant impacts and mitigations Discussions with partners and CAC toward draft preferred alternative Reviews by participating agencies
- Development of the LRT funding strategy
- Planning efforts on other Southwest Corridor Plan components Housing / equitable development Station area planning

Committee members appreciated the update and noted the importance of community collaboration and transit connections to other service providers.

6. <u>REGIONAL FLEXIBLE FUND ALLOCATION</u>

Mr. Dan Kaempff and Mr. Ted Leybold provided an update on the regional flexible fund allocation and asked TPAC to discuss and adopt a recommendation to JPACT on the 2019-2021 Regional Flexible Funds Allocation list of projects in Step 2. Mr. Kaempff called the committee's attention to the memo and spreadsheets provided in the packet and reminded the committee that following the recommendation, the final steps of the process are:

- Jan. 19 JPACT: discuss and take action on TPAC recommendation
- Feb. 2 Council meeting: public hearing and take action on proposed package

He noted that previous guidance from TPAC and JPACT recommendation a balanced approach and considered:

- 1. Technical merit the technical scores reflect how well the projects adhere to the criteria via scores
- 2. Local benefit public comments are reflective of local support and need
- 3. Sub-regional benefit sub-regional prioritization indicates the support of county coordinating committees and City of Portland for a project or group of projects
- 4. Regional and federal policy alignment how it aligns with RFFA objectives and the package of projects adheres to regional and federal policy

Committee discussed and clarified various details and concerns at length. Discussion on the Active Transportation/Complete Streets resulted in the following.

Active Transportation/Complete Streets

TPAC's recommendation includes funding for the City of Gresham's Complete Cleveland Street project. TPAC indicated that JPACT, as a part of their deliberations on the RFFA Recommendation, should consider funding the Complete Division Street project in place of the Cleveland Street project, at an identical funding level of \$3,141,156. Elements of the Division Street project are included in the Division Bus Project funding assumptions, and it is unclear. TPAC did not recommend changing any other projects' recommended amount to cover all or part of the cost differential between Cleveland and Division. TriMet pledged to work with the City and stakeholders to find potential cost savings within the Division Bus Project to help close the funding gap. The City of Oregon City agreed to pursue a federal fund exchange for the Molalla Avenue project, and accepted a funding amount of \$3,800,632.

Tualatin Hills Parks and Recreation District increased the amount of local matching funds to the Beaverton Creek Trail project, and accepted a funding amount of \$3,693,212.

Prior to the TPAC discussion on January 6, the City of Portland had indicated funding reductions totaling \$2,933,303 to the four projects included in the recommendation. These reductions were achieved through a combination of scope refinements, project reductions, and design element changes. During the TPAC discussion, they indicated they are willing to pursue a federal fund exchange and thus could reduce their requested funding level to the Cully project to \$2,200,000.

After discussion, the following committee action occurred:

MOTION: Ms. Katherine Kelly moved to recommend the list above the line noted on the spreadsheet entitled, "DRAFT 2019-21 RFFA Step 2 Project Recommendation - for discussion" with the request that JPACT, as a part of their deliberations on the RFFA Recommendation, should consider funding the Complete Division Street project in place of the Cleveland Street project, at an identical funding level of \$3,141,156. Mr. Steve Williams seconded the motion.

ACTION: The motion <u>passed</u> unanimously.

The committee then focused their discussion on the regional freight initiatives section of the spreadsheet. Various details and concerns were discussed and clarified at length. Discussion on the Regional Freight Initiatives resulted in the following.

Regional Freight Initiatives

The three project applicants all agreed to accept a funding reduction of 6.55% to their requested amounts in order to make the funding package balance to the available amount of freight funding. Project cost reductions will be achieved through a combination of federal fund exchange and additional modifications to the project's scope.

The City of Portland offered to look for ways to reduce RFFA funding for the Central Eastside project, beyond the TPAC-recommended reduced funding level of \$2,805,879, and return any cost savings up to \$210,000 to the region so that it can be used to continue funding Regional Freight Studies. The specific studies and activities to be funded through these means will be discussed by TPAC prior to any expenditure of these funds, and approved through the UPWP and/or MTIP amendment/adoption process.

TPAC indicated that in future RFFA cycles, funding for Regional Freight Studies should be considered through the Step 1 process.

After discussion, the following committee action occurred:

MOTION: Mr. Phil Healy moved to recommend Scenario 2 on the spreadsheet entitled "DRAFT 2019-21 RFFA Step 2 Project Recommendation - for discussion" to JPACT. Mr. Eric Hesse seconded the motion.

ACTION: The motion <u>passed</u> with Mr. Williams opposed and Mr. Nordberg abstaining.

7. <u>ADJOURN</u>

Chair Kloster noted that the next TPAC meeting would be held January 27, 2017. The meeting was adjourned at 12:00 pm.

Respectfully submitted,

~ Ma (

Lisa Hunrichs Planning & Development

ATTACHMENTS TO THE PUBLIC RECORD FOR THE MEETING OF JANUARY 6, 2017

ITEM	ТҮРЕ	Doc Date	DOCUMENT DESCRIPTION	DOCUMENT NO.
1	Agenda	1/6/17	1/6/17 TPAC Agenda	010617T-01
2	Work Program	12/30/16	2017 TPAC Work Program	010617T-02
3	Work Program	12/30/16	2017 JPACT Work Program	010617T-03
4	Meeting Summary	11/18/16	11/18/16 TPAC meeting summary	010617T-04
5	Memo and attachments	1/6/17	To: TPAC and Interested parties From: Chris Ford, SW Corridor Project Manager Re: SW Corridor Plan update	010617T-05
6	Memo and attachments	12/28/16	To: TPAC and Interested parties From: Dan Kaempff Re: DRAFT 2019-21 RFFA Step 2 Project Recommendation	010617T-06
7	Memo and attachments	1/5/17	To: TPAC and Interested parties From: Dan Kaempff Re: Addendum to DRAFT 2019-21 RFFA Step 2 Project Recommendation	010617T-07
8	Presentation	1/6/17	2019-21 RFFA Project Recommendation Development	010617T-08
9	Presentation	1/5/17	SW Corridor Plan Update	010617T-09
10	Handout	1/6/17	Provided by: City of Portland. Portland FRRA Active Transportation Project Applications – Proposed Cost Reductions	010617T-10
11	Email	1/5/17	To: Tom Kloster, Elissa Gertler, Heidi Guenin From: Duncan Hwang, APANO Re: RFFA and TPAC	010617T-11
12	Email	1/5/17	To: Tom Kloster, Elissa Gertler From: Heidi Guenin Re: RFFA and TPAC	010617T-12
13	Email	1/5/17	To: Tom Kloster, Elissa Gertler From: Chris Rall Re: RFFA Active Transportation Funding	010617T-13



2018 REGIONAL TRANSPORTATION PLAN

Regional Leadership Forum 3 | Connecting Our Priorities to Our Vision | Oregon Convention Center, Portland OR | Dec. 2, 2016

The Metro Council convened the Metro Policy Advisory Committee (MPAC), the Joint Policy Advisory Committee on Transportation (JPACT), state legislators and community and business leaders to foster leadership and collaboration to address regional transportation challenges through the 2018 Regional Transportation Plan. Working together across interests and communities can help ensure every person and business in the Portland metropolitan region has access to safe, reliable, affordable and healthy ways to get around. Find out more at **oregonmetro.gov/rtp**.

Graphic recording created by Darren Cools for Metro.



Graphic recording of conversations from Regional Leadership Forum 3. The illustrations were created by Darren Cools for Metro to support the 2018 Regional Transportation Plan. Find out more at oregonmetro.gov/rtp.

BEFORE THE METRO COUNCIL

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FOR THE PURPOSE OF AMENDING THE 2015-18 METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM (MTIP) TO INCLUDE TRIMET'S NEW OPEN TRIP PLANNER) AND LOW OR NO EMISSION (LOW-NO) BUS PROGRAM PROJECTS

RESOLUTION NO. 17-4766

Introduced by: "Chief Operating Officer Martha Bennett in concurrence with Council President Tom Hughes"

WHEREAS, the Metropolitan Transportation Improvement Program (MTIP) prioritizes projects from the Regional Transportation Plan to receive transportation related funding; and

WHEREAS, the Joint Policy Advisory Committee on Transportation (JPACT) and the Metro Council approved the 2015-18 MTIP on July 31, 2014; and

WHEREAS, JPACT and the Metro Council must approve any subsequent amendments to add new projects or substantially modify existing projects in the MTIP; and

WHEREAS, the Federal Transportation Administration now requires new transit projects to be submitted for MTIP inclusion via a Formal amendment; and

WHEREAS, TriMet received a discretionary federal grant of \$678,000 from FTA's Mobility on Demand (MOD) Sandbox Program for their new Open Trip Planner project that will create a platform integrating transit and shared-use mobility options allowing TriMet to build on its existing trip planning application to incorporate shared use mobility options and more sophisticated functionality and interfaces, including data sharing for shared-use mobility providers integrating data enabling users to plan trips that address first/last mile issues while traveling by transit; and

WHEREAS, TriMet's MOD Sandbox Program award is one of eleven total nationwide and is part of a larger research effort at DOT that supports transit agencies and communities as they integrate new mobility tools like smart phone apps, bike- and car-sharing, and demand-responsive bus and van services helping make transportation systems more efficient and accessible, particularly for people who lack access to a personal vehicle.

WHEREAS, TriMet received a discretionary FTA grant of \$3,405,750 to purchase zero-emission battery electric buses with en-route fast charging equipment and depot plug-in charging in the Portland area to evaluate future procurements of zero emission buses to create a cleaner, and more energy-efficient fleet also referred to as the Low or No-Emission (Low-No) Bus Program; and

WHEREAS, the zero-emission bus purchase will be for replacement buses; and

WHEREAS, the TriMet Board on December 14, 2016 authorized the submission of grant applications for receipt of the FY2017 federal discretionary funds to the Federal Transit Administration to progress forward with project implementation; and

WHEREAS, the Open Trip Planner project supports the 2014 RTP goals of Expanding Transportation Choices and Emphasizing Effective and Efficient Management of the Transportation System, while the Low or no Emission (Low-No) Bus Program supports the RTP goal of Promoting Environmental Stewardship; and

WHEREAS, both FTA awarded discretionary grants qualify as an exempts project as cited in 40 CFR 93.126, Table 2, within the category of "Mass Transit", and therefore is exempt from needing to demonstrate conformity with the air quality emissions budget; and

WHEREAS, the MTIP's financial constraint finding has been adjusted to reflect the new awarded 5312 and 5339c funding from the FTA grants ensuring the MTIP financial constraint requirement has been maintained; and

WHEREAS, TPAC received their notification and recommended approval on January 27, 2017; now therefore

BE IT RESOLVED that the Metro Council hereby adopts the recommendation of JPACT on February 16, 2017 to formally amend the 2015-18 MTIP to include the new TriMet Open Trip Planner and Low or No Emission (Low-No) Bus Program projects.

ADOPTED by the Metro Council this _____ day of ______ 2017.

Tom Hughes, Council President

Approved as to Form:

Alison R. Kean, Metro Attorney

Exhibit A to Resolution No. 17-4766

2015-18 Metropolitan Transportation Improvement Plan Chapter 5 Tables Amendment

Action: Amend MTIP to include TriMet's new Low or No-Emission (Low-No) Bus Program – FY16 and Open Trip Planner projects

Existing programming: None - new project

Amended programming: Low or No-Emission (Low-No) Bus Program

Project Name	Project Description	ODOT Key #	Lead Agency	Estimated Total Project Cost (all phases, all years)	Project Phase	Fund Type	Program Year	Federal Funding	Minimum Local Match	Other (Local Overrmatch) Funds	Total Funding
Low or No- Emission (Low-No) Bus Program – FY16	Purchase replacement zero emission battery electric buses	TBD	TriMet	\$7,265,000	Other	5339c	2017	\$3,405,750	\$601,015	\$3,258,235	\$7,265,000
			<u></u>	<u></u>			Totals:	\$3,405,750	\$601,015	\$3,258,235	\$7,265,000

Notes:

- 1. Fund code Notes:
 - a. 5339c = federal FTA Section 5339c Bus and Bus Related Equipment and Facilities and Low-No Programs
 The Grants for Buses and Bus Facilities program (49 U.S.C. 5339) makes federal resources available to states and direct recipients to replace,
 rehabilitate and purchase buses and related equipment and to construct bus-related facilities including technological changes or innovations to
 modify low or no emission vehicles or facilities.
 - b. Local = required local minimum matching funds to the federal funds. The minimum match to the 5339c was set at 15%
 - c. Other = Additional local funds the lead agency provides beyond the minimum match. Also referred to as "Overmatch" funds.
- 2. Phase Notes: Other phase = An implementation phase (like the construction phase), but generally used for transit and ITS projects. The associated activities reflect project implementation scope elements.

Existing programming: None - new project

Project Name	Project Description	ODOT Key #	Lead Agency	Estimated Total Project Cost (all phases, all years)	Project Phase	Fund Type	Program Year	Federal Funding	Minimum Local Match	Other (Local Overrmatch) Funds	Total Funding
Open Trip Planner (OTP) Project – FY16	Complete open platform for the integration of transit and shared- use mobility options.	20665	TriMet	\$962,000	Other	5312	2017	\$678,000	\$169,500	\$114,500	\$962,000
							Totals:	\$678,000	\$169,500	\$114,500	\$962,000

Amended Programming: Open Trip Planner project

Notes:

- 1. Fund code Notes:
 - a. 5312 = federal FTA Section 5312 Mobility on Demand (MOD) Sandbox Demonstration Program Funds projects that promote innovative business models to deliver high quality, seamless and equitable mobility options for all travelers.
 - b. Local = required local minimum matching funds to the federal funds. The minimum match to the 5339c was set at 15%
 - c. Other = Additional local funds the lead agency provides beyond the minimum match. Also referred to as "Overmatch" funds.
- 2. Phase Notes: Other phase = An implementation phase (like the construction phase), but generally used for transit and ITS projects. The associated activities reflect project implementation scope elements.

STAFF REPORT

FOR THE PURPOSE OF AMENDING THE 2015-18 METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM (MTIP) TO INCLUDE TRIMET'S NEW OPEN TRIP PLANNER AND LOW OR NO EMISSION (LOW-NO) BUS PROGRAM PROJECTS

Date: January 11, 2017

Prepared by: Ken Lobeck, 503-797-1785

BACKGROUND:

TriMet New Discretionary FTA Grant Awards

This Formal MTIP amendment involves two discretionary FTA grants awarded to TriMet. The two grants include:

- \$3,405,750 in Section 5339c funding from the Low or No Emission Vehicle Program FY 16 for bus replacements.
- \$678,000 in Section 5312 funding from the FY 2016 Mobility on Demand (MOD) Sandbox Program for the Open Trip Planner project.

Staff is requesting TPAC approval of Resolution 17-4766 to enable required approvals to move forward to JPACT and Council to allow both TriMet new projects to be added to the approved 2015-18 MTIP.

Open Trip Planner Project - FTA MOD Sandbox Program:

- FTA's MOD Sandbox Program is part of a larger research effort at DOT that supports transit agencies and communities as they integrate new mobility tools like smart phone apps, bike- and car-sharing, and demand-responsive bus and van services. MOD projects help make transportation systems more efficient and accessible, particularly for people who lack access to a car. FTA developed the MOD initiative to envision a multimodal, integrated, automated, accessible, and connected transportation system in which personalized mobility is a key feature. MOD allows for the use of on-demand information, real-time data, and predictive analysis to provide travelers with transportation choices that best serve their needs and circumstances. MOD leverages technologies that allow for a traveler-centric approach that provides better mobility options for everyone. FTA made eleven total nationwide awards including TriMet.
- TriMet will receive funding for an Open Trip Planner Share Use Mobility project that will create a platform integrating transit and shared-use mobility options. TriMet will build on its existing trip planning app to incorporate shared use mobility options and more sophisticated functionality and interfaces, including data sharing for shared-use mobility providers. By integrating data, the project will allow users to plan trips that address first/last mile issues while traveling by transit.

• The awarded Section 5312 funds require a minimum local match of 20%. Based on the federal award of \$678,000, the minimum match is \$169,500. For this project, TriMet will provide additional local funding (overmatch) in the amount of \$114,500. Total local contribution to the project will be \$284,000 with a total project estimated cost of \$962,000. Implementation of the project is proposed to occur during CY 2017.

Bus Replacement Procurement – FTA Low or No Emission Vehicle Program – FY16:

- The Low or No Emission Competitive program provides funding to state and local governmental authorities for the purchase or lease of zero-emission and low-emission transit buses as well as acquisition, construction, and leasing of required supporting facilities Eligible projects include:
 - Purchasing or leasing low- or no-emission buses.
 - Acquiring low- or no-emission buses with a leased power source.
 - Constructing or leasing facilities and related equipment (including intelligent technology and software) for low- or no-emission buses.
 - Constructing new public transportation facilities to accommodate low- or noemission buses.
 - Rehabilitating or improving existing public transportation facilities to accommodate low- or no-emission buses.
- TriMet will receive funding to purchase zero-emission battery electric buses with enroute fast-charging equipment and depot plug-in charging in the Portland area. TriMet will engage the Center for Transportation and the Environment (CTE) to determine the most efficient and cost effective routes on which to deploy the buses. TriMet has plans to procure future zero emission buses to create a cleaner, more energy-efficient fleet.
- The awarded Section 5339c funds cannot exceed 85% which then requires a minimum local match of 15%. Based on the federal award of \$3,405,750, the minimum match is \$601,015. For this project, TriMet will provide additional local funding (overmatch) in the amount of \$3,258,235. Total local contribution to the project will be \$3,859,250 with a total project estimated cost of \$7,265,000. Implementation of the project is proposed to occur during CY 2017.

Review for MTIP Inclusion:

The MTIP is a federal document and must comply with programming guidelines identified in 23 CFR 450.300-336. Adding a new project to the MTIP involves an initial review process that includes the following seven steps:

- 1. <u>Project Funding Justification, Eligibility, and Verification. Yes:</u>
 - a. The Open Trip Planner and Low or No Emission (Low-No) Bus Replacement projects received federal funds and are required to be programmed in the MTIP.
 - b. Eligibility and proof of grant funding for both projects have been verified through the FTA grant award.
 - c. The 5312 and 5339c funds are under the allocation management of FTA.

2. <u>RTP Verification. Yes:</u>

- a. New projects proposed for submission in the MTIP must be included in the current long range Regional Transportation Plan (RTP).
- b. The Open Trip Planner project falls within RTP project ID 11591, Electronic Fare System, development of protocol specifications for and installation of eFare system.
- c. The Low-No Emissions Bus Replacement project falls within RTP project ID 10998, Bus Replacements.
- 3. Consistency with RTP Goals and Strategies Verification. Yes:
 - a. As part of the federal and state performance measurements compliance, projects in the RTP and MTIP must be consistent with the RTP's approved strategies and goals.
 - b. The Open Trip Planner project meets two RTP goals:
 - i. Goal 3: Expand Transportation Choices:
 - 1. Objective 3.1 Travel Choices
 - 2. Objective 3.3 Equitable Access and Barrier Free Transportation
 - ii. Goal 4: Emphasize Effective and Efficient Management of the Transportation System, Objective 4.4 – Demand Management
 - c. The Low or No-Emission (Low-No) Bus Program project meets RTP goal #6, Promoting Environmental Stewardship, Objective 6.3 Clean Air.
- 4. <u>MTIP Formal or Administrative Amendment Verification A Formal Amendment is</u> <u>Required:</u>
 - a. Per discussions with FTA, all new transit projects requiring MTIP programming will be submitted and processed as a Formal amendment. Normally, exceptions to this guidance will not occur.
 - b. Once approved by the Metro Council, the Formal amendment will require final approval from USDOT.
- 5. Conformity Verification. Yes:
 - a. Federal air conformity exemption requirements are outlined in 40 CFR 93.126, Exempt Projects, Tables 2 and 40 CFR 93.127, Table 3. These two tables assist in determining if the project is required to complete air conformity analysis.
 - b. The Open Trip Planner project qualifies as an exempt project as cited in 40 CFR 93.126, Table 2, within the category of "Other" Grants for training and research programs. The project is not a capacity enhancing project nor will lead to directly to construction. It is exempt from air conformity analysis requirements.
 - c. The Low-No Emissions Bus Replacement project also qualifies as an exempt project as cited in 40 CFR 93.126, Table 2, within the category of "Mass Transit" Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet

6. <u>Financial Constraint Verification</u>. <u>Yes</u>:

- a. 23 CFR 450.324(e) requires the MTIP to demonstrate financial constraint by each year at all times. Financial or fiscal constraint simply means the commitment of funds programmed for projects in the MTIP for each year does not exceed the available funding (or capacity) identified for the specific fund type. In other words, for each year in the MTIP, fund programming does not exceed identified fund capacity.
- b. FTA's two grant awards to TriMet are discretionary awards and will use the fund codes of 5312 and 5339c.
- c. These two fund types are not currently programmed in the MTIP. They are being added to the MTIP financial plan as part of this amendment. The change in financial constraint is as follows:

			2015-	2018 MTIP Finan	cial Constraint U	pdate		
Fund		Before This Ar	nendment	Financial C	Changes from Am		Quar	
Type Code	Year	Existing Programming	Existing Capacity	Programming Change to the Year	Fund Capacity Change	Revised Yearly Total Capacity	Programmed % of Capacity	Programmed ?
5312	2017	\$0	\$0	+ \$678,000	Increase from \$0 to \$678,000 in 2017	\$678,000	100%	No
5339c	2017	\$0	\$0	+\$3,405,750	Increase from \$0 to \$3,405,750 in 2017	\$3,405,750	100%	No

- d. No other financial changes are occurring to federal or state funding as part of this amendment.
- e. As a result of this amendment 5312 and 5339c funds and funding are added to the MTIP. There is not a negative impact to the financial constraint finding as a result of adding TriMet's Open Trip Planner and Low-No Emission Bus Replacement projects.
- 7. <u>Metro Programming Responsibilities.</u> As the MPO, Metro is completing the required MTIP programming actions in accordance with 23 CFR 450.300-336 and with emphasis on Section 326:
 - a. As part of the Formal amendment, Metro is completing a 30+ day public notification and comment opportunity for both projects as part of Metro's Public Engagement Plan. Both Metro and TriMet addressed all submitted comments. A summary of the comments received to date is provided in Attachment 2.
 - b. The TriMet Board approved their resolution to move forward and required fund obligation and project implementation with FTA.
 - c. The project's proposed funding does not impact any appropriated funding Metro receives.

Summary:

Staff is seeking approval of this Formal MTIP amendment to enable TriMet to move forward with their grant application in FTA's Transit Award Management System (TrAMS) system to obligate and begin expending awarded grant funding for both projects.

Staff will complete the MTIP programming action upon final approval from the Metro Council and monitor subsequent required approvals up and through USDOT for final inclusion in the MTIP/STIP. The programming summary is shown in Exhibit A to the Resolution 17-4766.

Proposed approval schedule:

- JPACT: February 16, 2017
- Metro Council: March 9, 2017

ANALYSIS/INFORMATION

- 1. Known Opposition: None known at this time.
- 2. Legal Antecedents: Amends the 2015-2018 Metropolitan Transportation Improvement Program adopted by Metro Council Resolution 14-4532 on July 31, 2014 (For The Purpose of Adopting the Metropolitan Transportation Improvement Program for the Portland Metropolitan Area).
- 3. Anticipated Effects: Enables the projects to obligate and expend awarded federal funds.
- 4. Budget Impacts: None

RECOMMENDED ACTION:

Staff recommends the approval of Resolution 17-4766.

Attachments:

- 1. Amendment Narrative and MTIP Worksheet Cover Pages
- 2. Comments Summary

Metro Formal Amendment 17-01F

New TriMet Discretionary Grant Projects

Number of projects within this amendment: 2

Programming Action



Narrative/Comments

Project Summary

ODOT Key 20665

Description: The Tri-County Metropolitan Transportation District of Oregon (TriMet) will receive funding for an Open Trip Planner Share Use Mobility project that will create a platform integrating transit and shared-use mobility options. TriMet will build on its existing trip planning app to incorporate shared use mobility options and more sophisticated functionality and interfaces, including data sharing for shared-use mobility providers. By integrating data, the project will allow users to plan trips that address first/last mile issues while traveling by transit.

Project Status: NEW – Added January 2017 as a Formal amendment to the MTIP

Project Details

Reason for Amendment: New federally funded project required to be in the MTIP

- Add Lead Agency: TriMet
- Add Name: "Open Trip (OTP) Planner"
- Add Short Description: "Complete open platform for the integration of transit and shared-us mobility options"
- Project Type: Transit

Name: Open Trip Planner

Project Funding

- Add federal 5312 fund type FY 2017 Other phase funds of \$678,000
- Total federal amount is \$678,000.
- Add Local fund type FY 2017 minimum match amount of \$169,500
- Add Local Overmatch fund type FY 2017 amount of \$114,500
- Total local programmed amount is \$284,000
- Total local match percent to the project: 29.5%
- Total programmed amount and YOE project cost is \$962,000

MTIP Review and Inclusion Details

- <u>Amendment submission</u>: Add as a Formal amendment: **Yes** Per FTA guidance for new transit projects
- Metro legislation required: Yes reference Resolution 17-4766.
- <u>Consistency with RTP</u>: Yes Applicable RTP ID# 11591 Electronic Fare System, development of protocol specifications for and installation of eFare system.
- <u>Consistency with RTP Goals</u>: Yes
 - i. Goal 3: Expand Transportation Choices:
 - 1. Objective 3.1 Travel Choices
 - 2. Objective 3.3 Equitable Access and Barrier Free Transportation
 - ii. Goal 4: Emphasize Effective and Efficient Management of the Transportation System, Objective 4.4 – Demand Management
- <u>Conformity Status</u>: Exempt project per 40 CFR 93.126, Table 2 "Other" Grants for training and research and programs.
- <u>Financial Constraint Verification</u>: Yes 5312 and 5339c are new federal funds added to the MTIP as part of the amendment and have been incorporated into the MTIP Financial Plan
- <u>Public Notification process included</u>: Yes Comment period is open from January 5, 2017 until February 16, 2017

The MOD Sandbox Program is part of a
larger research effort at DOT that
supports transit agencies and communities
as they integrate new mobility tools like
smart phone apps, bike- and car-sharing,
and demand-responsive bus and van
services. MOD projects help make
transportation systems more efficient and
accessible, particularly for people who
lack access to a car.

5312 funds awarded to TriMet from the FTA Fiscal Year 2016 Mobility on Demand (MOD) Program

State	Project Sponsor	Description	Funding
OR	Tri-County Metropolitan Transportation District	The Tri-County Metropolitan Transportation District of Oragon (TriMgd) will reserve funding for an Open Trip Hanner Share Use Mobility project that will create a platform integrating transit and shared-use mobility options. TriMgd will build on its scitting trip planning app to incorporate shared use mobility options and more sophisticated functionality and interfaces, including data sharing for shared-ase anobility provides. By integrating data, the project will allow users to plan trips that address first bat mis is uses while traveling by transit.	\$678,000

Attachment 1 to Staff Report: Amendment Narrative and MTIP Worksheet Cover Pages

Metro Formal Amendment 17-01F

New TriMet Discretionary Grant Projects

Number of projects within this amendment: 2

Programming Action



Project Summary					
Name: Low or No-Emission (Low-No) Bus Program – FY16	ODOT Key: TBD				
Description: TriMet will receive funding to purchase zero-emission battery electric buses v	with en-route fast-charging				

Description: TriMet will receive funding to purchase zero-emission battery electric buses with en-route fast-charging equipment and depot plug-in charging in the Portland area. TriMet will engage the Center for Transportation and the Environment (CTE) to determine the most efficient and cost effective routes on which to deploy the buses. TriMet has plans to procure future zero emission buses to create a cleaner, more energy-efficient fleet.

Project Status: NEW – Added January 2017 as a Formal amendment to the MTIP

Project Details	This is a bus replacement project and does			
 Reason for Amendment: New federally funded project required to be in the MTIP Add Lead Agency: TriMet Add Name: "Low or No-Emission (Low-No Bus Program (FY16)" Add Short Description: "Purchase zero emission battery electric buses" Project Type: Transit 	<u>not</u> reflect a fleet expansion			
Project Funding	5339c funds awarded to TriMet from the			
 Add federal 5339c fund type FY 2017 Other phase funds of \$3 405 750 	FTA Fiscal Year 2016 Low or No- Emission (Low-No) Bus Program			
- Total federal amount is \$3.405.750	State Project Sponsor Project Description Funding Amount			
 Add Local fund type FY 2017 minimum match amount of \$601,015 Add Local Overmatch fund type FY 2017 amount of \$3,258,235 Total local programmed amount is \$3,859,250. 	OR Tri-County Metropolitan TriMat will receive funding to purchase zero- eminicino battery electric to use with en-couts fast-charging acquipment and dept play in charging the Perind areas. TriMat will engage the Center for Transportation and the Environment (CET) to determine the most efficient and cost effective routes on which to deploy the bases. TriMat aplans to processe future zero emission buse to create a cleaner, more energy-efficient fleet. \$3,405,750			
- Total local match percent to project cost: 53.1%				
- Total programmed amount and YOE project cost is \$7,265,000				
MTIP Review and Inclusion 1	Details			
 <u>Amendment submission</u>: Add as a Formal amendment: Yes – Per FTA guidance for new transit projects <u>Metro legislation required</u>: Yes – reference Resolution 17-4766. 				
• <u>Consistency with RTP</u> : Yes – Applicable RTP ID# 10998, Bu	as Replacements			

- <u>Consistency with RTP Goals</u>: Yes Goal 6, Emphasize Promoting Environmental Stewardship, Objective 6.3, Clean Air.
- <u>Conformity Status:</u> Exempt project per 40 CFR 93.126, Table 2 "Mass Transit" Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet.
- <u>Financial Constraint Verification</u>: Yes 5312 and 5339c are new federal funds added to the MTIP as part of the amendment and have been incorporated into the MTIP Financial Plan
- <u>Public Notification process included</u>: Yes The comment period was extended and is open from January 5, 2017 until February 16, 2017

Metro Formal Amendment 17-01F

New TriMet Discretionary Grant Projects Number of projects within this amendment: 2



Programming Action

Narrative/Comments

Lead Agency: TriMet Project Type: Transit Mile Points: N/A	
	MIPID: IBD
Project Name: Open Trip Planner (OTP) Project – FY16 Short Description: Complete open platform for the integration of transit and shared-use mobility options.	ODOT KEY: TBD RTP ID: N/A RFFA ID: N/A RFFA Cycle:
Requested Action: Create a new key code to reflect \$678.000 awarded under Federal Fiscal Year 2016 Section 5312 Research, Development and Deployment Program. Add \$678,000 Section FFY17 Add \$678,000 Section FFY17 Add \$678,000 Section FFY17	CT: tion 5312 funds to OTHER phase iried local match at 20%
PROJECT FUNDING DETAILS - Add3 114,500 L00 - Total project osti - Amendment type: Ad	\$962,000 ministrative
PROJECT FUNDING DETAILS	
Project Phases	
Preliminary Purchase Right- Fund Type Year Planning Engineering of-Way Construction Other Total	
Federal Funds	00 \$0
	\$0 \$0
Federal Total \$0 \$0 \$0 \$0 \$678,00 \$678,00	00
State Funds	\$0
State Total \$0 \$0 \$0 \$0 \$0	\$0
Local Funds 5169,50 Local (20%) 2017 \$169,50 Overmatch 2017 \$114,500	00 00 \$0
	\$0
Local lotal 50 50 50 50 5284,000 \$284,0 Programming Total \$0 \$0 \$0 \$0 \$962.000 \$962.0	00

	Metro		Metropolitan F	Me Transportation I ROJECT DETA	etro mprovement Pro I IL WORKSHEE	gram (MTIP) T	Adminis	strative Amendment Request
Lead Agency	y: TriMet			Project Type:	Transit	Mile Points:	N/A	MTIPID: TBD
Project Nam Short Descri	e: Low or No- iption: Purch	Emission (Low-N ase zero emissio	lo) Bus Progran on battery electr	n – FY16 ic buses.				ODOT KEY: TBD RTP ID: N/A RFFA ID: N/A RFFA Cycle:
Requested # Fiscal Year 2	Action: Create 2016 Low or No	a new key code Emission Bus P	to reflect \$3,40! rogram.	5,750 awarded un	der Federal	Action: ADD N - Add \$ phase - Add \$	IEW PROJECT: 3,405,750 Sectio e in FFY17 601,015 required	n 5339 funds to OTHER
				PROJECT FUN	DING DETAILS	Add \$3,258,235 Local overmatch funds Total project cost is \$7,265,000 Amendment type: Administrative		265,000 strative
			PROJECT FU	NDING DETAILS				
	-		Project Phases					
Fund Type	Year	Planning	Engineering	of-Way	Construction	Other	Total	
Federal Funds FTA - 5339(c)	2017					\$3,405,750	\$3,405,750 \$0 \$0	
	Federal Total	\$0	ŚO	Śŋ	Śŋ	\$3,405,750	\$3,405,750	
State Funds		, , , , , , , , , , , , , , , , , , ,	Ç.	Ç.	, , , , , , , , , , , , , , , , , , ,	<i>43, 103, 130</i>	\$0	
	State Total	\$0	\$0	\$0	\$0	\$0	\$0	
Local Funds Local (15%) Overmatch	2017 2017					\$601,015 \$3,258,235	\$601,015 \$3,258,235 \$0 \$0	
	Local Total	\$0	\$0	\$0	\$0	\$3,859,250	\$3,859,250	
Prog	ramming Total	\$0	\$0	\$0	\$0	\$7,265,000	\$7,265,000	

MTIP Formal Amendment 17-01F TriMet New Discretionary Grant Projects Summary of Comments

BACKGROUND

Public notification and the opportunity to submit comments or concerns for new projects being added to the MTIP are provided to the public two ways:

- 1. At Metro TPAC, JPACT, and Council during the Public Comments section of the agenda.
- 2. Though the Metro MTIP webpage at <u>http://www.oregonmetro.gov/metropolitan-</u> <u>transportation-improvement-program</u>.

All comments received are logged and reviewed by Metro Staff. As best as possible, Metro staff will reply to the comments. The lead agency is also provided a copy of all submitted. For some comments, Metro may request the lead agency to provide the response as the comment may involve technical details the lead agency is more qualified to provide.

Notice of pending amendment

Metro is in receipt of the 2015-2018 MTIP Amendment for a new project addition on behalf of TriMet: Low or No-Emission (Low-No) Bus Program and Open Trip Planner (OTP) Project.

The public review period for this starts on Thursday, Jan. 5, 2017 and concludes on Thursday, Feb. 16, at 5 p.m.

Requests to submit comments or concerns about this amendment should be submitted to Pamela Blackhorse, pamela.blackhorse@oregonmetro.gov.

As of January 11, Metro has received 5 total comments for both TriMet's new projects. A summary of the comments includes the following

Low-or No Emission (Low-No) Bus Replacement Project					
Lead Agency: TriMet					
Federal funding	g award: Discretiona	ry 5339c fi	unds of \$3,405,750		
Estimated total	project cost: \$7,265	,000			
Comment perio	d initially opened or	n Decembe	r 19, 2016 and has l	been extended to February 16, 2017 as part of a	
bundled Forma	I MTIP Amendment				
	C	omments	Received as of Ja	anuary 11, 2017	
Name	Comment	Reply	Who	Response Summary	
Carol Renaud	Planned use of buses in Washington County?	Yes	Ken Lobeck Metro Eric Hesse, TriMet	Reply confirmed TriMet is planning to operate the buses primarily in Washington County out of the Merlo garage and will definitely want to include WashCo in the public engagement."	
Dick Springer	Urgency of posting amendment during holiday season question	Yes	Ken Lobeck Metro	Clarified initial administrative amendment processing structure in relation to implementation timing and that the project now would be processed as formal amendment.	
Ralph Cohen	Request for additional technical details about the EV buses	Yes	Roberta Altstadt TriMet	Detailed reply about the grant and the New Flyer XE40 Xcelsior 40-foot-long battery-electric buses as well as the design and installation of associated charging infrastructure.	

Attachment 2 to Staff Report TriMet Formal MTIP Amendment Summary of Comments

Susan Anderson	Letter of support	Yes	Pam Blackhorse Metro	Acknowledgement
John Wasiutynsko	Support for project	Yes	Pam Blackhorse Metro	Acknowledgement

Open Trip Planner Project						
Lead Agency: TriMet						
Federal fund	ling award: Discreti	onary 5312 f	unds of \$678,000			
Estimated to	tal project cost: \$96	52,000				
Comment pe	eriod initially opene	d on January	5, 2017 and will cl	ose on February 16, 2017.		
		Comment	s Received as of .	January 11, 2017		
Name	Comment	Reply	Who	Response Summary		
No comments received						

Memo



Date:	December 9, 2016
To:	Transportation Policy Alternatives Committee and Interested Parties
From:	Grace Cho, Associate Transportation Planner
Subject:	2018-2021 MTIP - Federal 5310 and State Special Transportation Fund Allocation – FY 2018 and 2019

Purpose

To provide TPAC an overview of the upcoming allocation of federal 5310 and state Special Transportation funds for fiscal years 2018 – 2019. The resulting projects from the allocation within the Portland metropolitan region will be included as part of the 2018-2021 Metropolitan Transportation Improvement Program (MTIP).

Introduction

Metro, as the metropolitan planning organization (MPO), is responsible for the development of the MTIP, which is a federally mandated schedule of upcoming federal transportation expenditures for the Portland metropolitan region. The MTIP has several functions, but its main purposes are:

- 1. To coordinate across the entities which have discretion over federal transportation funds in the region;
- 2. To ensure the package of federal transportation investments in the Portland metropolitan region being expended in the upcoming four years comply with federal statues; and
- 3. To ensure the package of federal transportation investments are furthering the implementation of regional transportation policies.

Many of the federal transportation funding allocations processes in the Portland metropolitan region are well-known to TPAC and comprise the majority of the MTIP. These include the Regional Flexible Fund, overseen by Metro, and the State Transportation Improvement Program (STIP) Enhance process, overseen by ODOT. The federal 5310 and state Special Transportation funds are two small discretionary fund programs in which the resulting Portland area projects from the allocation are included in the MTIP. Because the projects are programmed into the MTIP, information regarding the federal 5310 and state Special Transportation funds are being brought forward to the MPO as part of coordination activities to ensure the MTIP is satisfying its main objectives.

Federal 5310 and Special Transportation Fund

The federal 5310 and state Special Transportation fund programs are targeted to supporting transportation services benefiting seniors and persons with disabilities. The allocation of the federal 5310 and Special Transportation takes place statewide and on a biennium schedule. In the Portland metropolitan region, TriMet is the designated recipient for disbursing the federal 5310 and state Special Transportation funds and therefore coordinates the allocation process for the Portland metropolitan region. An oversight body comprised of transportation service providers for seniors and people with disabilities, users of the services/community members, and advocates are part of the advisory body for Portland metropolitan region's allocation of these funds.

Details and Information Regarding the Federal 5310 and Special Transportation Fund Allocation

TriMet staff will provide materials to the December 16 TPAC meeting.

GRANT APPLICATION FORMS AVAILABLE FOR TRANSPORTATION SERVICES BENEFITTING SENIORS AND PERSONS WITH DISABILITIES

Special Transportation Fund (STF) Advisory Committee Public Notice

The Tri-County Metropolitan Transportation District of Oregon (TriMet) announces the availability of applications for **FY18-19 State of Oregon 5310 Formula funds and Special Transportation Formula (STF) Formula Funds.** These programs fund transportation services benefiting seniors and persons with disabilities. Eligible applicants are public and private non-profit organizations with managerial and financial capability to provide transportation services for the older adults and people with disabilities.

Funds are limited. The priority for funding is to maintain existing transportation services derived from the Coordinated Transportation Plan for Elderly and People with Disabilities that are cost effective and coordinate service between transportation providers to avoid duplication in the region. Completed applications will be evaluated and prioritized by TriMet's Special Transportation Fund Advisory Committee (STFAC) at public meetings. There will be time for public testimony at the meetings.

Application Deadlines

Private non-profit transportation providers:

Application Deadlines:

- DRAFT Applications from non-profit organizations are due at Ride Connection by 5 PM on December 16th, 2016.
- FINAL Applications from non-profit organizations are due at Ride Connection by 5 PM on December 23rd, 2016.

Send applications to:

Cora Potter at Ride Connection Phone: 503-528-1727 | Email: <u>cpotter@rideconnection.org</u>

Transit Agencies and Ride Connection:

Application Deadline:

• All applications are due at TriMet by 5 PM on January 6th, 2017. Send applications to:

Hannah R. Quinsey at TriMet Phone: 503-962-4912 | Email: <u>quinseyh@trimet.org</u>

Application forms and submitted applications will be added to the STFAC website: <u>http://trimet.org/meetings/stfac/grants.htm</u>

Application Instructions

All Applicants

Instructions: Submit one copy of this form per Applicant (including Ride Connection Partner Providers). Questions marked with * do not apply to Ride Connection or Partners.

• Applicant Information Form_FY18-19 Biennium.pdf

STF Formula Applicants

Instructions: Applicants submit one copy of this form per Project Proposal (including Ride Connection Partner Providers):

• STF Formula - Project Application Form_FY18-19 Biennium.pdf

5310 Formula Applicants

Instructions: Applicants submit one copy of both 5310 forms per Project Proposal (including Ride Connection Partner Providers):

- 5310 Formula- Project Application Form Supplemental Questions_FY18-19 Biennium.pdf
- 5310 Formula- Project Application Form ODOT_FY18-19 Biennium.pdf

Note: When requesting for vehicle maintenance, replacement, or expansion funding, please indicate if vehicles will be used in urban or rural areas.

Upcoming STFAC Meetings

STFAC Meeting - FY18/19 STF and 5310 Applicants Present Requests

This STFAC meeting will take place on Friday, *January 27, 2017* at the ODOT Public Meeting Room A & B, 123 NW Flanders (1st Floor), Portland, from 9:00 am to 12:00 pm. The meeting is open to the public. The purpose of the meeting is to have STF and 5310 applicants present each project application and have a Q&A session with the STFAC. The STFAC will discuss how the grant requests meet the priorities established in STFAC meeting held in December.

STFAC Meeting - FY18/19 STF Application Evaluation & STFAC Recommendation

This STFAC meeting will take place on Friday, *February 10, 2017* at the ODOT Public Meeting Room A & B, 123 NW Flanders (1st Floor), Portland, from 9:00 am to 12:00 pm. The meeting is open to the public. The purpose of the meeting is to have the STFAC evaluate project proposals, hold a funding straw proposal, and vote on a recommended list of projects and funding amounts.

TriMet will provide a sign language interpreter for anyone who requests it at least 48 hours before the meeting by calling 503-962-4831 or TDD 503-962-5811 Mon. through Fri., 8:00 am to 5:00 pm.

Memo



Date:	January 20, 2017
То:	Transportation Policy Alternatives Committee (TPAC) and interested parties
From:	John Mermin, Performance Measures Work Group Lead
Subject:	2018 RTP: Recommended Refinements to RTP System Evaluation Measures

Action Requested

TPAC review and comment on proposed refinements to the RTP System evaluation measures and provide suggestions for effectively summarizing the recommended measures to policymakers. This discussion follows up on TPAC's previous discussion on October 28, 2016.

Background

The Performance Measures Work Group is one of eight technical work groups identified to provide input and technical expertise to support development of the 2018 Regional Transportation Plan (RTP). The main charge of the work group is to provide technical input and make recommendations to Metro staff on updating the RTP performance measures. Additionally, work group members have been asked to:

- Provide information to their organization's leadership and/or staff about the progress of the work (in addition to technical and policy committee representatives).
- Integrate input from partners, the public and other RTP work groups (safety, transit, equity and freight) to develop recommendations to Metro staff.
- Identify issues that need to be resolved by Metro Council, MPAC and JPACT.

The Performance Measures work group met six times in 2016 to review and recommend updates to the *RTP system evaluation measures*, with an emphasis on simplifying and decreasing the number of measures. Measures were pulled from and based upon industry best practices, the 2014 RTP, the 2014 Climate Smart Strategy and those identified by other RTP work groups. The system evaluation measures will be used to evaluate performance of the 2018 RTP as a whole. The evaluation will help policymakers understand the degree to which projects and programs advance the region towards RTP goals, and identify where additional efforts may be needed.

Recommended changes to RTP System Evaluation Measures

Attachment 1 summarizes recommended changes to the existing RTP system evaluation measures based on discussion at the Performance work group meetings as well at the meetings of the Transit, Equity, Safety and Freight work groups. The proposed refinements include changes to methods, geographies, collapsing measures into themes, and the addition of new measures. Further refinements to the measures may be recommended pending the RTP system evaluation in 2017.

Attachment 2 summarizes how each measure relates to each RTP goal.

Attachment 3 provides information to be included in the methodology documentation to be included in the RTP appendix. TPAC will not be asked to approve the methodologies, but any comments or suggestions are welcome through the end of February, 2017. Please submit them to john.mermin@oregonmetro.gov

Attachment 4 provides the membership roster for the RTP Performance Measures workgroup

Next Steps

Metro Technical Advisory Committee (MTAC) will review the measures February 15 and TPAC will take action at their March 31 meeting. This recommendation will be included within a package of items to support building the RTP Investment Strategy: the revenue forecast, priorities, evaluation framework and call for projects.

In 2017, the work group will focus on setting performance targets and establishing monitoring measures for the RTP. Target setting will address recent federal rulemaking in response to the Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation Act (FAST Act), as appropriate. As noted previously, further refinements to the measures may be recommended pending the RTP system evaluation.

Attachment 1. Summary of Recommended changes to RTP System Evaluation Measures for TPAC

ID#	Recommended System Evaluation Measure ¹	Initial Staff Recommendation	Notes
Hov	v much do people and goods travel in our region?		
1.	 Multimodal travel System-wide # of miles traveled (total and share of overall travel), sub-region # of miles (total and share of overall travel) A) Vehicle Miles Traveled (VMT) (total, per capita, and per employee) B) Bicycle miles traveled (total and per capita) C) Freight miles traveled D) Pedestrian miles traveled (total and per capita) 	Refine and rename Vehicle travel and Bicycle travel-Multimodal travel Previously Metro reported vehicle miles traveled and bicycle miles traveled (both total and per capita). Staff now recommends reporting auto, bike, pedestrian and freight, as well as auto vmt per employee and person miles traveled.	 This measure provides information on the amount of travel in the region. VMT per employee may better factor in fluctuation in VMT due to economic swings. For geographies smaller than regionwide, this calculation covers travel to, from and
	E) Person miles traveled		within the boundary of the geography.
2.	Active transportation and transit mode share System-wide (total and share): A) walking B) bicycling C) transit Non-driving travel (total and share): A) Central City B) Regional Centers C) Mobility corridors D) Sub-regions.	Refine and rename: <u>"Active transportation and transit</u> mode share "	Narrow this measure to evaluate mode share for the Central City and Regional Centers (as well as region-wide and by mobility corridor) as done in past RTP updates. This formally acknowledges that Metro cannot accurately measure mode share at geographies as small as town centers, industrial and employment areas. Chapter 2 of the RTP (p.2-22) and table 2.5 will need to be updated to reflect this recommended change. These refinements are consistent with the state's Transportation Planning Rule (TPR) - the original impetus for creating these targets. Regional-level mode share targets will be addressed in 2017 as part of the broader RTP target-setting discussions. Report "non-driving" travel rather than "non- SOV" travel to address issue of model's generous definition of shared ride (includes driving kids to school).
Hov	v much do households spend on housing and transportation	in our region?	
3.	Affordability* Combined cost of housing and transportation	Refine methodology. Updated 12.5.16 – Staff is continuing to work through the methodology development, but may consider this a monitoring measure recommendation.	Staff will continue to develop a methodology. This measure is a major priority of the equity work group. The methodology will identify cost burdened households in the region.

¹ Reflects staff, workgroup, TPAC and MTAC input.

Comments from Work Group(s), TPAC & MTAC

Performance work group supports the staff recommendation and recommends reporting by # of miles and % of overall miles traveled by sub-region (urban Washington Co, urban Clackamas County, Portland, East Multnomah County) to better show variations across the region.

TPAC - "Travel Characteristics" is too ambiguous of a theme name. Try phrasing themes as questions, e.g. initial staff response for this theme: *"How much and by what methods are we traveling?"*

Performance and transit work groups support the staff recommendation and requested the analysis be reported by sub-region (urban Washington Co, urban Clackamas County, Portland, East Multnomah County) to better show variations across the region.

The Equity work group supports the staff recommendation with the recognition that there are a number of methodological components that need further work in order to be useful.

Transit Work Group has expressed concerns that current tools and methods won't capture the transit cost component very well.

Attachment 1. Summary of Recommended changes to RTP System Evaluation Measures for TPAC

ID#	Recommended System Evaluation Measure ¹	Initial Staff Recommendation	Notes
Hov	v safe is travel in our region?		
4.	Share of safety projects Percent of number and cost of safety projects in the RTP investment packages regionwide, in areas with historically marginalized communities, in areas with focused historically marginalized communities and per person in each area.	Add as new measure.	Safety is a key concern of the RTP and has not been part of past system evaluations. This measure will assess where safety investments are being made. Safety projects are defined as: "Transportation infrastructure projects with the primary intent to address a safety issue, and allocate a majority of the project cost to a documented safety countermeasure(s) to address a specific documented risk, or improve safety for vulnerable users, including people walking and bicycling, people with disabilities, older adults and youth."
5.	Exposure to crash risk* The sum of all non-freeway vehicle miles traveled (VMT) in Transportation Area Zones (TAZ) for RTP investment packages region-wide, in historically marginalized communities, and in focused historically marginalized communities.	Add as new measure.	Safety is a key concern of the RTP and has not been part of past system evaluations. This is an interim measure until a safety and crash predictive model is developed involving other factors. Measuring transportation safety is a priority topic area for historically marginalized communities and there is interest in looking at forecastable indicators to flag potential transportation safety issues. Staff has found a statistical correlation between VMT and crashes.
Hov	v easily, comfortably and directly can we access jobs and de	stinations in our region?	
6.	Access to travel options – system connectivity & completeness * Miles, network percent complete, connectivity, density and timing of sidewalk, bikeway, trail and new street investments region wide, in historically marginalized communities, in focused historically marginalized communities and within 1/2mile of transit.	Refine, continue to develop methodology and rename -"Basic Infrastucture Access to travel options – system connectivity and completeness"	Developing this measure will have resource impacts for both Metro and local governments. This measure replaces the basic infrastructure measure that was composed of total mileage of (regional networks) of sidewalk, bikeways and trails. The access to transit sub-measure supports the transit supportive elements part of the regional transit vision.

Comments from Work Group(s), TPAC & MTAC

PAC - A challenge with this measure is that current H+T tools are better at monitoring what's happening currently rather than projecting into the future (which is needed for a system evaluation measure).

The Safety, Equity and Performance work groups support the staff recommendation.

In response to feedback from the performance and safety work groups, references to high-injury corridors and safe routes to school projects were removed from an earlier draft safety project definition.

PAC - Safety is a difficult issue for Washington County. Its arterials have access management, so they don't have as many high-injury crash locations as other parts of the region.

The Safety, Equity and Performance work groups support the general approach of the staff recommendation. Additionally, the Performance work group provided general support to continue to explore this measure and use It for an initial assessment, and asked staff to use "non-throughway" or "non-freeway" instead of "non-interstate" to ensure that limited access facilities such as JS 26 and OR 217 are accounted for. The safety work group recommends further testing the measure, including whether per capita is the right approach. *In response, staff tested and decided that per TAZ area would be used instead of per capita*.

TPAC – Crash risk is more of an output measure than an output measure.

The Equity work group's preliminary recommendation is to expand this measure to add street connectivity to sidewalks, bikeways and trails with an emphasis on looking at the timing of basic infrastructure investments in historically marginalized communities. The Performance work group recommends backaging all of the "access" measures as a suite, being sure to address completeness, route directness/ connectivity, origins & destinations.

Attachment 1. Summary of Recommended changes to RTP System Evaluation Measures for TPAC

ID#	Recommended System Evaluation Measure ¹	Initial Staff Recommendation	Notes	
7.	Access to jobs* Number of jobs (classified by wage groups – low, middle, and high) accessible within A) 30 minutes by auto B) 45 minutes by transit C) 30 minutes by bike D) 20 minutes by walking.	Add as a new measure.	Access to jobs is a significant transportation priority identified by historically marginalized communities. Metro Planning and Research Center staff will work to further develop this accessibility-related measure.	F F F
8.	 Access to community places* 1) Measure access by bicycling, walking, transit, driving 2) Adjust the time sheds for each mode 3) Define existing "daily needs" consistent with other similar efforts, including the TriMet Equity Index. 	Refine and rename - " Access to Daily Needs Access to Community Places."	Metro staff recommends this measure replace the Access to Daily needs measure that was composed of: Number of essential destinations accessible within 30 minutes by bicycling & public transit for low-income, minority, senior and disabled populations. Metro Planning and Research Center staff will work to further develop this accessibility-related measure.	T e E r
9.	Access to bicycle and pedestrian parkways Number and percent of households within ½ mile of a bicycle or pedestrian parkway.	Refine and rename – "Access to Trails <u>Bicycle</u> and Pedestrian Parkways	This change would better reflect access to the major regional off-street and on- street bicycling and walking routes throughout the region.	r
10.	Access to transit Number and share of households, low-income households and employment within ¼- mile of high capacity transit or frequent service transit	Add as a new measure.	This measure was recommended through the Climate Smart Strategy and by the Transit Work Group. This measure provides information on how much of the region's households and jobs are served by transit.	T F
11.	Access to industry and freight intermodal facilities	Under development. Intending to look at the extent that industrial land and freight intermodal facilities are transportation constrained – which is the way the state defines a bottleneck based on a combination of volume/capacity, travel times and unreliability	This will be measured by determining the number of forecasted truck trips that are coming from or going to areas of industrial land and freight intermodal facilities; and evaluating any improvements in congested locations or freight bottlenecks that these truck trips encounter. Maps will display the locations for industrial land and intermodal facilities and the corresponding number of truck trips along with locations where major truck delay occurs.	

Comments from Work Group(s), TPAC & MTAC

This measure was recognized by work groups and staff as extremely important.

Equity, Transit and Performance work groups support the staff recommendation.

TPAC – Noted the importance of high wage jobs (accessed via US 26). Asked if the data set will capture the low wage jobs at Intel's Ronler Acres campus? *Staff response: Yes.*

This measure was recognized by work groups and staff as extremely important.

Equity, Transit and Performance work groups support the staff recommendation.

The Performance work group supports the staff recommendation.

The Transit work group supports the staff recommendation.

The Performance work group noted that this measure will eventually be replaced by the access measures.
ID#	Recommended System Evaluation Measure ¹	Initial Staff Recommendation	Notes
Hov	v efficient is travel in our region?		
12.	Multi-modal travel times Between key origin-destinations for mid-day and 2-hr PM peak	Refine and rename – "Multimodal travel times"	Metro staff recommends renaming and refining this measure to evaluate bicycling and freight travel times in addition to auto and transit for each regional mobility corridor. <i>Note: the</i> <i>regional travel model is not currently able</i> <i>to forecast walking travel times.</i> Metro Staff developed pairs of origins & destination that match up with each mobility corridor, plus others for biking and freight that don't match up with mobility corridors. There is a lot of overlap between auto, transit and bike O/D pairs which will allow for comparisons between modes to see where each corridors where various modes are competitive. After the system evaluation is completed in Summer 2017, staff will review these to determine whether these pairs should be changed.
13.	 Congestion A) Vehicle hours of delay per person B) Interim Regional Mobility Policy - Locations of throughways, arterials, and regional freight network facilities that that exceed LOS threshold C) Freight Truck delay D) Total cost of delay on freight network 	Under development.	 Discussions are underway with ODOT regarding updates to regional and state congestion measures and the Interim Regional Mobility Policy. Developing a recommendation for this measure is especially challenging since the new federal regulations relating to congestion measurement were not finalized until January 17. The Freight work group recommends evaluating delay per truck trip exclusively on regional freight network rather than the entire roadway system. Also, the measure should be called "Freight truck delay" rather than the current misnomer, "freight reliability", since it does not measure for current conditions will be developed as part of RTP Monitoring Measures discussions in 2017.

Comments from Work Group(s), TPAC & MTAC

The Performance and Transit work groups support the staff recommendation.

Work Group – Don't lose the importance of reliability in the congestion story, even if it is difficult to forecast with travel model.

TPAC – Continuing to measure delay *per capita* is very important to factor all people into the measure, including those that walk, bike, drive, take transit or telecommute.

Attachment 1. Summary of Recommended changes to RTP System Evaluation Measures for TPAC

ID#	Recommended System Evaluation Measure ¹	Initial Staff Recommendation	Notes	(
14.	 Transit efficiency A) Boarding rides per revenue hour for HCT & bus B) Revenue hours by transit mode C) Transit ridership system-wide by each transit service type 	No change to measure but rename <u>Transit</u> Efficiency Productivity .	The measure provides information on the productivity and efficiency of transit service provided. Revenue hours was recommended through Climate Smart Strategy and by the Transit Work Group and provides information on the amount of transit service provided.	ä
Hov	v will transportation impact climate change, air quality and	the environment?		
15.	Climate change Tons of transportation-related greenhouse gas emissions (total and per capita)	No change.	The region is required to measure greenhouse gas emissions to help demonstrate whether the RTP is meeting state-required per capita greenhouse gas emissions reductions. During 2017 target setting discussion, ensure that the new target is consistent with statewide target and Climate Smart Strategy.	1
16.	Clean air Tons of transportation related air pollutants (e.g. CO, ozone, PM-10)	Refine air pollutants reported. Updated 12.5.16 – Staff will continue looking into the potential of sub-regional air quality analysis, but this may be a recommendation for future work in subsequent RTPs.	Metro staff recommends this measure be refined. This is an important measure for evaluating transportation impact on air quality and human health. Pollutants reported may change pending further consultation with DEQ.	-
17.	Habitat impact* Number and percent of projects that intersect high value habitat	Refine methodology. Updated 12.5.16 – methodology refined to include contextual language about the purpose, clearly indicate the measure is a "flagging" mechanism for projects, and recognize that project development will look into these issues more in depth.	The Equity work group recommends assessing whether there are disparities between historically marginalized communities and transportation projects that may impact habitat conservation/ preservation, primarily focusing the assessment on roadway projects.	۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲

* Reflects the transportation priorities identified by historically marginalized communities and will serve as the basis for the federally-required Title VI Benefits and Burdens analysis.

Comments from Work Group(s), TPAC & MTAC

The Transit work group supports collapsing transit productivity and revenue hours into one measure as recommended by staff.

The Performance work group supports the staff recommendation.

The Performance work group supports the staff recommendation. The work group member requested staff to provide mapping at the sub-regional level if possible since the Tualatin Valley has unique air quality compared to the east side of the region.

The Equity and Performance work groups support the staff recommendation. The Performance work group recommends adding contextual language to describe the purpose of this measure, better define high value habitat, and note that it is tied to federal requirements to consult with resource agencies as part of an RTP update. The Performance work group also supports continuing to use this measure to identify projects in the RTP for informational purposes for the public and project sponsors.

TPAC – Remember that many transportation projects improve habitat.

MTAC – transportation project impact on habitat is very complex and varies depending on many factors – width of asphalt, retaining walls, wildlife crossing treatments, volume of auto traffic, etc.

RTP System Evaluation Measures			RTP Goals									
			Sustain Economic Competitiveness and Prosperity	Expand Transportation Choices	Effective and Efficient Management of System	Enhance Safety and Security	Promote Environmental Stewardship	Enhance Human Health	Demonstrate leadership reducing greenhouse gas emissions	Ensure Equity	Ensure Fiscal Stewardship	Deliver Accountability
	How much do people and goods travel in our	region	?									
1	Multimodal Travel – System-wide # of miles traveled (total and share of overall travel) and subregion # of miles traveled (total and share of overall travel): Vehicle miles traveled (VMT) – total, per capita, per employee, Bicycle miles traveled – total and per capita, Freight miles traveled, Pedestrian miles traveled- total and per capita, Person miles traveled total and per capita.	•	•	•	•	•	•	•	•			
2	Active transportation and transit mode share – System-wide – total and share for walking, bicycling, transit. Non-Single Occupancy Vehicle (SOV) – total and share for: Central City, Regional Centers, Mobility corridors, sub-regions.	•	•	•	•		•	•	•			
	How much do households spend on housing	and tra	nsporta	ation in	our reg	gion?						
3	Affordability* – Combined Housing and Transportation (methodology TBD)										Ś	S.
	How safe is travel in our region?										y goal	y goal
4	Share of Safety Projects – Percent of number and cost of projects in the RTP investment packages regionwide and in areas with historically underrepresented communities.		•		•		•	•	•	•	Accountabilit	Accountabilit
5	Exposure to crash risk * – Non-Freeway VMT exposure per capita Exposure to crash risk through the sum of all non-interstate vehicle miles traveled (VMT) in Transportation Area Zones (TAZ) for RTP investment packages region-wide, and in historically underrepresented communities.		•		•			•		•	dship and Delive	dship and Delive
		•	•			•			•		teward	leward
1	How easily, comfortably and directly can we a	iccess j	obs an	d desti	nations	s in our	region	?			scal St	scal St
0	completeness* - methodology TBD. Sub measure: Access to transit (percent of bike or pedestrian network gaps completed within ½-mile of transit)	•		•		•	•	•	•	•	e "Ensure Fi	e "Ensure Fi
7 8	Access to Jobs* - Number of jobs (classified by wage groups – low, middle, and high) accessible within 30 minutes by auto; 45 minutes by transit; 30 minutes by bike, and 20 minutes by walking Access to Community Places* - 1)Measure access by bicycling	•	•	•			•	•		•	ures for the	ures for the
0	walking, transit, driving 2)Adjust the time sheds for each mode 3) Define existing "daily needs" consistent with other similar efforts, including the TriMet Equity Index.	•		•			•	•		•	uation meas	lation meas
9	percent of households within ½ mile of a bicycle or pedestrian parkway.	•	•	•		•	•	•	•	•	em evalı	em evalı
10	Access to transit – Number and share of households, low-income households and employment within ¼-mile of high capacity transit or frequent service transit	•		•		•	•	•	•	•	e no syste	e no syste
11	Access to Industry and Freight Intermodal Facilities – Methodology TBD										There ar	There ar
	How efficient is travel in our region?								_			
12	Multi-modal Travel Times – between key origin-destinations for mid-day and 2-hr PM peak	•	•	•	•							
13	Congestion – A) Vehicle hours of delay per person B) Interim Regional Mobility Policy – Locations of throughways, arterials, and regional freight network facilities that exceed LOS threshold C) Freight Truck delay D) Total cost of delay on freight network		•		•	•	•		•			
14	Transit efficiency – A)Boarding rides per revenue hour for HCT & bus B) Revenue hours by transit mode C) Transit ridership systemwide by each transit service type	•		•		•	•	•	•			
How will transportation impact climate change, air quality and the environment?												
15	Climate Change - Tons of transportation-related greenhouse		•	•			•	•	•			
16	Clean Air - Tons of transportation-related air pollutants <i>(e.g.CO, ozone, and PM</i> , 10)		•	•			•	•		•		
17	Habitat impact* - Number and percent of projects that intersect high value habitat	•					•	•		•		

*Reflects the transportation priorities identified by historically underrepresented communities and will serve as the basis for the federally-required Title VI Benefits and Burdens analysis.



2018 REGIONAL TRANSPORTATION UPDATE

DRAFT System Evaluation Measures Methodologies

January 2017



2018 RTP Draft System Evaluation Measures Methodologies

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- 12. Multi-modal travel times
- 13. Congestion
- 14. Transit efficiency
- 15. Climate change
- 16. Clean air
- 17. Habitat impact

Background information for equity measures* (3. Affordability, 5. Exposure to crash risk, 6. Access to

travel options – system connectivity & completeness, 7. Access to jobs, 8. Access to community places, 17. Habitat impact)

*Reflects the transportation priorities identified by historically marginalized communities and will serve as the basis for the federally-required Title VI Benefits and Burdens analysis.

Measure #1 - Multimodal travel

Evaluation Measure Title: Multimodal travel

Purpose and Goals

<u>Overall Purpose</u>: To identify whether the package of future transportation investments will increase different forms of travel including auto, bicycle, pedestrian, freight and overall travel (person miles traveled).

<u>Questions to Be Addressed</u>:

The **Multimodal travel** performance measures look to assess the following questions for the region's transportation system:

- 1) How much travel is happening in the region? And within each subregion? (Portland, urban Washington County, urban Clackamas County, East Multnomah County)
- 2) By what modes is this travel happening?

2014 RTP Goals

•	Foster vibrant communities and compact urban form	•	Promote environmental stewardship
•	Sustain economic competitiveness and prosperity	•	Enhance human health
•	Expand transportation choices	•	Demonstrate leadership at reducing greenhouse gas emissions
•	Effective and efficient management of system		Ensure equity
•	Enhance safety and security		

Function of Performance Measure

•	System Evaluation	Project Evaluation	System Monitoring	•	Performance Target

Associated 2014 RTP Target – By 2040, reduce vehicle miles traveled per person by 10 percent compared to 2010.

Measure #1 – Multimodal travel

Methodology Description:

Miles traveled is a direct output of the regional travel model. For each trip, the trip distance is calculated between the origin and destination. For per capita calculations these trip distances are divided by the regional population.

Output Units: Miles traveled (total and per capita) by mode

Potential Output of Assessment:

	Base Year	Interim Year	Future Year - Financially Constrained	Future Year - Strategic
Regionwide Person Miles				
Traveled (PMT)				
Regionwide				
Vehicle Miles				
Regionwide				
Bicycle Miles				
Traveled (BMT)				
Regionwide				
Pedestrian Miles				
Traveled				
Regionwide				
Freight Miles				
traveled				

Key Assumptions to Method:

Dataset Used:

Dataset	Type of Data
Geospatial project information for proposed transportation projects	observed
Miles traveled	forecasted

Tools Used for Analysis: Metro Travel Demand Model,

Measure #1 - Multimodal travel

Other assumptions

For analysis by sub-regional geography, staff included all TAZs within the subregion. Any TAZ crossing sub-regional boundaries has been assigned to the sub-region for which the majority of the area of the TAZ is located.

Measure #2 – Active transportation and transit mode share

Evaluation Measure Title: Active Transportation and Transit Mode Share

Purpose and Goals

<u>Overall Purpose</u>: To identify whether the package of future transportation investments will increase

- A) Walking, Bicycling and Transit usage(total and share):
 - Systemwide
- B) Non-driving travel (total and share):
 - Central City
 - Regional Centers
 - Mobility Corridors
 - Sub-regions (Portland, urban Washington County, urban Clackamas County, East Multnomah County)

Questions to Be Addressed:

The **Active Transportation and Transit Mode Share** performance measures look to assess the following questions for the region's transportation system:

1) What is the share of travel utilizing non driving modes across the region and within various sub-geographies.

2014 RTP Goals

•	Foster vibrant communities and compact urban form	•	Promote environmental stewardship
•	Sustain economic competitiveness and prosperity	•	Enhance human health
•	Expand transportation choices	•	Demonstrate leadership at reducing greenhouse gas emissions
•	Effective and efficient management of system		Ensure equity
	Enhance safety and security		

Measure #2 – Active transportation and transit mode share

Function of Performance Measure

•	System Evaluation	Project Evaluation	System Monitoring	•	Performance Target

Associated 2014 RTP Target – By 2040, triple walking, biking and transit mode shares compared to 2010 modeled mode shares.

Methodology Description:

Mode Share is a direct output of the regional travel model. Modal accessibility functions were estimated as an input to the mode choice modes. For each trip purpose, they measure the utility of choosing one of seven discrete modes. Drive alone, Drive with passenger, Transit by walk access – Transit by park-and-ride access, Bike, Walk .Probabilities are applied to distributed trips to determine the number of trips by each mode.

Output Units:

% share of travel by a given mode.

Potential Output of Assessment:

	Base Year	Interim Year	Future Year - Financially Constrained	Future Year - Strategic
% by Transit				
% by Bicycle				
% by Walk				

Key Assumptions to Method:

Dataset Used:

Dataset	Type of Data
Geospatial project information for proposed transportation projects	observed
Share of travel by mode	forecasted

Tools Used for Analysis: Metro Travel Demand Model,

Attachment 3. RTP System Evaluation Measures Methodology

Measure #2 – Active transportation and transit mode share

Other assumptions:

For analysis by sub-regional geography, staff included all TAZs within the subregion. Any TAZ crossing sub-regional boundaries has been assigned to the sub-region for which the majority of the area of the TAZ is located.

Measure #3 – Affordability

Evaluation Measure Title: Affordability

This methodology for this measure is under development.

Measure #4 - Multimodal travel

Evaluation Measure Title: Share of safety projects

(New System Evaluation Measure)

Purpose: To identify where and at what level of investment the package of future transportation projects addresses transportation safety through the development of transportation infrastructure with proven safety countermeasures, region-wide and in areas with high concentrations of historically marginalized communities and in areas with high concentrations of focused historically marginalized communities.¹

The **Share of safety projects** performance measure will assess the following questions for the region's transportation system region-wide and in areas with high concentrations of historically marginalized communities:

- 1) What percentage of the region's proposed transportation projects are identified as safety projects?²
- 2) What percentage of the total transportation investment package (cost) is attributed to safety projects?
- 3) What percentage of the total number of transportation safety investments are located in historically marginalized communities?
- 4) Is there a difference of transportation safety investment levels (cost) in areas with historically marginalized communities?
- 5) What is the per-person expenditure of transportation safety investments region-wide and for historically marginalized communities?

	Foster vibrant communities and compact urban form		Promote environmental stewardship
•	Sustain economic competitiveness and prosperity	•	Enhance human health
	Expand transportation choices		Demonstrate leadership at reducing greenhouse gas emissions
	Effective and efficient management of system	•	Ensure equity
•	Enhance safety and security		

2014 RTP Goals

¹ Historically marginalized communities are areas with high concentrations (compared to the regional average) of people of color, people with low-incomes, people with limited English proficiency, older adults and/or young people. Focused historically marginalized communities are areas with high concentrations (compared to the regional average) of people of color, people with low-incomes, and people with limited English proficiency.

² Safety Projects in the RTP are capital infrastructure projects with the primary intent to address a safety issue, and allocate a majority of the project cost to a documented safety countermeasure(s) to address a specific documented risk, or improve safety for vulnerable users, including people walking and bicycling, older adults and youth. Safety countermeasures are actions taken to improve transportation safety and therefore decrease the number of injuries and fatalities. Safety countermeasures may include geometric design, systemic safety, and intelligent transportation systems. Examples of proven safety countermeasures include, but are not limited to, FHWA's nine proven safety countermeasures: road diets, medians and pedestrian crossing islands, pedestrian hybrid beacons, roundabouts, access management, retroreflective backplates, safety edge, enhanced curve delineation, and rumble strips.

Function of Performance Measure

Measure #4 – Multimodal travel

•	System Evaluation	Project Evaluation	System Monitoring	•	Performance Target

<u>Associated 2014 RTP Performance Target:</u> By 2040, reduce the number of fatal and severe injury crashes for pedestrians, bicyclists and motor vehicle occupants each by 50% compared to 2007-2011 average. (*Target proposed to be updated in 2018 to: By 2040 eliminate transportation related fatalities and serious injuries for all users of the region's transportation system, with a 16% reduction by 2020 (as compared to the 2015 five year rolling average), and a 50% reduction by 2025.*)

Methodology Description:

The method for calculating the **Transportation Safety – Infrastructure Investments** performance measure will entail:

- 1. Calculating the number of safety projects in the regional transportation investment packages region-wide, in historically marginalized communities and in focused historically marginalized communities;
- 2. Calculating the cost of safety projects in the regional transportation investment packages region-wide, in historically marginalized communities and in focused historically marginalized communities;
- 3. Geospatial analysis of safety projects in the regional transportation investment packages region-wide, in historically marginalized communities and in focused historically marginalized communities.
- 4. Calculating the per-person expenditure of transportation safety projects for the number of people region-wide and for the number of people identified within in historically marginalized communities and focused historically marginalized communities.

Output Units: Percentage (%) of transportation safety projects and percentage of cost for transportation safety projects region-wide, in historically marginalized communities, in focused historically marginalized communities, and per person in each of these areas.

Area	Base Year	Interim Year	Future Year – Financially Constrained	Future Year – Strategic
Design suide	% Safety Projects, %			
Region-wide	Cost allocated to Safety			
	Projects, % Per person			
Historically marginalized	% Safety Projects, %			
communities	cost allocated to Safety			
communicies	Projects, % Per person			
Focused historically	% Safety Projects, %			
marginalized	cost allocated to Safety			
communities	Projects, % Per person			

Potential Output of Assessment:

<u>Key Assumptions to Method</u>: Dataset Used:

Dataset	Type of Data
Geospatial and cost information for proposed transportation safety	Observed
projects	

Tools Used for Analysis: ArcGIS

Measure #5 – Exposure to crash risk

Evaluation Measure Title: Exposure to Crash Risk

(New System Evaluation Measure)

Purpose: To approximate risk of exposure to crashes by identifying whether the package of future transportation investments increases or decreases non-freeway vehicle miles traveled (VMT) within each transportation area zone (TAZ), region-wide, and in areas with high concentrations of historically marginalized communities and focused historically marginalized communities.¹

The **Exposure to Crash Risk** performance measure will assess the following questions for the region's transportation system region-wide and in areas with high concentrations of historically marginalized communities:

- 1) What is the region's vehicle miles traveled in each TAZ and how does it change with the proposed package of transportation investments?
- 2) Is there a difference in exposure to vehicle miles traveled in TAZ's with high concentrations of historically marginalized communities?
- 3) Has the proposed transportation investment program held steady, increased or decreased the vehicle miles traveled exposure in historically marginalized communities?

2014 RTP Goals

	Foster vibrant communities and compact urban form		Promote environmental stewardship
•	Sustain economic competitiveness and prosperity	•	Enhance human health
	Expand transportation choices		Demonstrate leadership at reducing greenhouse gas emissions
	Effective and efficient management of system	•	Ensure equity
•	Enhance safety and security		

Function of Performance Measure

•	System Evaluation	Project Evaluation	System Monitoring	•	Performance Target
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<u>Associated 2014 RTP Performance Target:</u> By 2040, reduce the number of fatal and severe injury crashes for pedestrians, bicyclists and motor vehicle occupants each by 50% compared to 2007-2011 average. (*Target proposed to be updated in 2018 to: By 2040 eliminate transportation related fatalities and serious injuries for all users of the region's transportation system, with a 16% reduction by 2020 (as compared to the 2015 five year rolling average), and a 50% reduction by 2025.*)

¹ Historically marginalized communities are areas with high concentrations (compared to the regional average) of people of color, people with low-incomes, people with limited English proficiency, older adults and/or young people. Focused historically marginalized communities are areas with high concentrations (compared to the regional average) of people of color, people with low-incomes, and people with limited English proficiency.

Measure #5 – Exposure to crash risk

Methodology Description: This analysis uses vehicle miles traveled per capita as a proxy for crash exposure risk. The **Transportation Safety – Vehicle Miles Traveled Exposure** system evaluation performance measure is calculated by:

- 1. Aggregating non-freeway vehicle miles traveled (VMT) within each transportation analysis zone (TAZ).
- 2. To determine increased or decreased exposure to VMT, the total non-freeway, average weekday VMT for each TAZ is divided by the area of the TAZ.
- 3. Calculate the total area of TAZs within the Metropolitan Planning Area boundary and the area of TAZs comprising historically marginalized communities and focused historically marginalized communities; divide the average weekday VMT by the area of TAZs with above average historically marginalized communities and the remainder of the region to control for the differing geographical extents of historically marginalized communities (around 28% of the region's land area) and the remainder of the region (around X%).

Output Units: Vehicle miles traveled per TAZ area (VMT/sq. foot TAZ)

	Base Year	Interim Year	Future Year – Financially Constrained	Future Year – Strategic
Region-wide	VMT			
Historically Marginalized Communities	VMT			
Focused Historically Marginalized Communities	VMT			

Potential Output of Assessment:

Key Assumptions to Method

Dataset Used:

Dataset	Type of Data
Geospatial project information for proposed transportation projects	Observed
Vehicle miles traveled by TAZ	Forecasted

Tools Used for Analysis: Metro's travel demand model and ArcGIS

Considerations:

Analysis conducted showed correlation between VMT and crashes in the region; the R2 was just over 0.25, so ¼ of the crash relationship can be explained by exposed VMT at the TAZ level.

Facilities excluded from VMT exposure analysis are (see map):

Measure #5 – Exposure to crash risk

- Hwy 26 W
- Hwy 217
- Hwy 224 the sunrise corridor
- Hwy 26 E from Burnside intersection in Gresham
- I-5
- I-205
- I-84
- I-405



Measure #6 – Access to travel options

<u>Evaluation Measure Title: Access to Travel Options – System Connectivity and Completeness</u> (Replacing the 2014 RTP System Evaluation Measure– Miles of sidewalk, bikeways, and trails)

Purpose: To identify how the package of future transportation investments will increase the connectivity and completeness of the pedestrian, bicycle, trail and roadway network and increase access to transit through the development of sidewalks, bikeways, trails and new street connections, region wide, and in areas where there are high concentrations of historically marginalized communities and focused historically marginalized communities.¹

The Access to Travel Options – System Completeness and Connectivity performance measures will assess the following questions for the region's transportation system, region-wide and in areas with historically marginalized communities and focused historically marginalized communities:

- 1) How many miles of the pedestrian, bicycle, trail and street networks are completed? How many miles are left to complete?
- 2) What percentage of bicycle and pedestrian gaps within ½ mile of transit stops and stations are completed?
- 3) Has connectivity and density of the walking, bicycling and roadway networks increased?
- 4) What time-frame are the infrastructure investments being proposed for, compared to other investments in the RTP?

2014	I RTP	Goals	

•	Foster vibrant communities and compact urban form	•	Promote environmental stewardship
	Sustain economic competitiveness and prosperity	•	Enhance human health
•	Expand transportation choices	•	Demonstrate leadership at reducing greenhouse gas emissions
	Effective and efficient management of system	•	Ensure equity
	Enhance safety and security		

Function of Evaluation Measure

•	System Evaluation	Project	System		Performance Target
		Evaluation	Monitoring		

<u>Associated 2014 RTP Performance Target:</u> Basic Infrastructure: Increase by 50% the miles of sidewalk, bikeways, and trails compared to the regional network in 2010. (*This target will be updated in the 2018 RTP.*)

Methodology Description:

¹ Historically marginalized communities are areas with high concentrations (compared to the regional average) of people of color, people with low-incomes, people with limited English proficiency, older adults and/or young people. Focused historically marginalized communities are areas with high concentrations (compared to the regional average) of people of color, people with low-incomes, and people with limited English proficiency.

Measure #6 – Access to travel options

- 1) <u>Sidewalk, bikeway, trail and street completeness</u>: Use a geospatial analysis to compare miles of existing facilities and miles of proposed projects to miles in planned regional pedestrian, bike, trail and street networks.
 - a) Calculate the **miles** of sidewalks, bikeways, trails and street connections for the base year and future year investment packages, region-wide and in areas where there are high concentrations of historically marginalized communities and focused historically marginalized communities.
 - b) Calculate **percent** sidewalk, bikeway, trail and new street connections complete for the base year and future year investment packages, compared to the planned regional pedestrian, bicycle, trail and street networks region-wide and in areas where there are high concentrations of historically marginalized communities and focused historically marginalized communities.
- 2) <u>Access to transit</u>: Use geospatial analysis to calculate the linear **miles and percentage** of sidewalks and bikeways completed within ½ mile buffer of all transit stops and stations region-wide and in areas where there are high concentrations of historically marginalized communities.
- 3) <u>Network connectivity and density</u>: Use a geospatial analysis to measure the **spacing and intersection** of sidewalks, bikeways, trails and streets and compare the existing networks and miles of proposed facilities in the investment packages to planned networks to produce connectivity ratios and density levels.
 - a) *Street connectivity*: calculate the ratio of three-way or more intersections per Transportation Area Zone (TAZ) for the base year and future year investment packages, region-wide and in areas where there are high concentrations of historically marginalized communities. A higher number would indicate more intersections, and presumably, higher connectivity.
 - b) *Street density*: calculate the linear miles of streets per TAZ for the base year and future year investment packages, region-wide and in areas where there are high concentrations of historically marginalized communities. A higher number would indicate higher density.
 - c) *Sidewalk connectivity*: first calculate the linear miles of streets per TAZ for the base year and future year investment packages, region-wide and in areas where there are high concentrations of historically marginalized communities. Next, remove street segments with less than fifty percent of sidewalk complete. Re-calculate the linear miles of streets per TAZ area. The ratio of the first two calculations is the sidewalk connectivity measure. A high ratio indicates better sidewalk connectivity.
 - d) *Sidewalk density*: calculate the miles of street segments with more than 50 percent of sidewalks completed per TAZ area for the base year and future year investment packages, region-wide and in areas where there are high concentrations of historically marginalized communities. A higher number would indicate higher density.

Measure #6 - Access to travel options

- e) *Bikeway connectivity*: first calculate the linear miles of streets per TAZ for the base year and future year investment packages, region-wide and in areas where there are high concentrations of historically marginalized communities. Next, remove street segments with no bikeway. Re-calculate the linear miles of streets per TAZ area. The ratio of the first two calculations is the sidewalk connectivity measure. A high ratio indicates better sidewalk connectivity.
- f) Bikeway density: calculate the miles of street segments with bikeways completed per TAZ area for the base year and future year investment packages, region-wide and in areas where there are high concentrations of historically marginalized communities. A higher number would indicate higher density.
- 4) <u>Timing of investments:</u> Calculate the percentage of sidewalk, bikeway, trail and new street connections proposed for the first ten-years of the RTP (from 2017-2027) for the region and in areas with higher concentrations of historically underrepresented communities. Then the measure will look at the percentage of proposed active transportation investments for the latter years (2028 2040) for the region and in areas with higher concentrations of historically underrepresented communities. This will help to determine whether there is an imbalance in the timing and locations of these types of investments.

Output Units: Miles and percentage (%) of bikeways, sidewalks, trails and new street connections, region-wide and in areas with high concentrations of historically underrepresented communities

	Base Year			Interim Year			Fut Fi Co	ture nan nsti	Yea cial rain	ar – lly led	Future Year – Strategic					
Type of investment	В	S	Т	NS	В	S	Т	NS	В	S	Т	N S	В	S	Т	N S
Region-wide	Number of miles, % network complete, connectivity ratio, density level															
Historically Underrepresented Communities																
Focused Historically Underrepresented Communities																

Potential Output of Assessment: Maps and tables

B – Bikeways; P –Sidewalks; T –Trails; NS – New Street Connections

Measure #6 - Access to travel options

Key Assumptions to Method

Dataset Used:

Dataset	Type of Data		
Line features in a GIS for proposed sidewalk, bikeway, trail and new street	Observed		
connection projects			
Line features in a GIS for existing (constructed) sidewalks, bikeways,	Observed		
trails, and streets			
Line features in a GIS for planned regional bicycle, pedestrian and	Observed		
roadway networks			

Tools Used for Analysis: ArcGIS

Definitions

Connectivity is defined as the directness of links and the density of connections in path or road network. A well connected road or path network has many short links, numerous intersections, and minimal dead-ends (cul-de-sacs). As connectivity increases, travel distances decrease and route options increase, allowing more direct travel between destinations, creating a more accessible and resilient system.²

Completeness is defined as the percentage of miles of the planned pedestrian, bicycle or roadway network that has been completed.

New Street Connection Project is a project that creates a new street where none existed before; street widening projects are not new street connections.

Active Transportation Project are projects that allocate a majority of the project cost to increasing bicycling and/or walking access on the regional active transportation network.

Bikeway Project is a project that allocates a majority of the project cost to developing a bikeway. Bikeways included in larger street projects will be included in this analysis.

Sidewalk Project is a project that allocates a majority of the project cost to developing a sidewalk. Sidewalks included in larger street projects will be included in this analysis.

Trail Project is a project that allocates a majority of the project cost to developing a trail.

² Victoria Transport Policy Institute

Evaluation Measure Title: Access to Jobs

(New System Evaluation measure)

Purpose and Goals

<u>Overall Purpose</u>: To identify whether the package of future transportation investments will increase the ability of region's residents to get to jobs (by wage profile) in the region.

<u>Transportation Equity Purpose</u>: Furthermore, to look at how the region's future transportation investments increase access jobs, but more specifically to low and middle-wage jobs, particularly for those areas where there are high concentrations of communities of color, lower-income communities, limited English proficiency populations, older adults, and youth relative to the region.

The **Access to Jobs** performance measure looks to assess the following questions for the region's transportation system:

- 1) How many jobs can be reached in a given time window by different travel modes?
- 2) How many more jobs can be reached with the future package of transportation investments? Is the increase in jobs accessible in proportion or providing greater access to jobs in light of anticipated future employment and population growth?
- 3) Are different transportation modes outpacing its ability to get the region's residents to jobs?

More specifically, from the transportation equity perspective, the **Access to Jobs** performance measure looks to assess the following questions:

- 1) How many low and middle-wage jobs can be reached in a given time window by different travel modes?
- 2) What are differences in low and middle-wage job access for the region and specifically for communities of color, lower-income communities, limited English proficiency populations, older adults, and youth?
- 3) Is the difference in low and middle-wage job access between automobile and transit? Is there a difference which extends beyond a reasonable threshold and creating a "transit access disadvantage" to low and middle-wage jobs in certain areas? If so, do those "transit access disadvantage" areas overlap with areas with high concentrations of communities of color, lower-income communities, limited English proficiency populations, older adults, and youth?
- 4) Is the access to low and middle-wage jobs also in proportion or providing greater access to jobs in light of anticipated future population and employment growth?

•	Foster vibrant communities and compact urban form	•	Promote environmental stewardship
•	Sustain economic competitiveness and prosperity	•	Enhance human health
•	Expand transportation choices		Demonstrate leadership at reducing greenhouse gas emissions
	Effective and efficient management of system	•	Ensure equity
	Enhance safety and security		

2014 RTP Goals

Function of Performance Measure

System Evaluation Evaluation System Evaluation Performance Target	•	System Evaluation	Project Evaluation	System Monitoring	Performance Target
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Associated 2014 RTP Performance Target: None to date

Methodology Description:

The **Access to Jobs** performance measure is calculated by using forecasted data from Metroscope to identify and geographically distribute jobs throughout the region, including categorized lowwage and middle-wage jobs (defined in assumptions). The analysis will determine the number of jobs, and additionally the low and middle-wage jobs, reached using the existing transportation system. The analysis will look at the differences in jobs, including low and middle-wage jobs, accessed by travel mode (automobile, transit, bicycle, and walking) in a given travel time window for the entire region and in areas with high concentrations of communities of color, lower-income communities, limited English proficiency populations, older adults, and youth to determine base year conditions. The next step is to conduct the same assessment, but use the proposed package of transportation investments in the long-range regional transportation plan as the input to determine the future year accessibility to forecasted jobs, including more focused look at low and middle-wage jobs, by mode for the entire region and in areas with high concentrations of communities of color, lower-income communities, limited English proficiency populations, older adults, and youth. Lastly, the measure will look at the change in the accessibility to jobs between the base year and future year with the added transportation investments, but with a particularly emphasis on the change in access to low and middle-wage jobs in areas with high concentrations of communities of color, lower-income communities, limited English proficiency populations, older adults, and youth. In considering transportation equity further, the Access to Jobs measure will also look at the number of low and middle-wage jobs accessible by transit and by automobile and compared the access. A threshold will be applied to determine whether there is a "transit access disadvantage" to low and middle-wage jobs. (Meaning there is significantly less access to low and middle-wage jobs by transit compared to automobile access.) These areas which are identified as "transit access disadvantaged" will be compared to areas where there are higher concentrations of historically underrepresented communities.

Output Units: Number of jobs, by wage profile, accessed by mode (Auto; Transit; Bike; Walk)

Potential Output of Assessment: Number of jobs reached within different travel time sheds by different modes.

Job Access – All Jobs:

		Base Year			Ir	Interim Year			Future Year – Financially Constrained				Future Year – Strategic			
	Α	Т	В	W	Α	Т	В	W	Α	Т	В	W	Α	Т	В	W
Region-wide																
Historically																
Marginalized																
Communities																
Focused																
Historically																
Marginalized																
Communities																

A – Automobile; T – Transit; B – Bicycle; W - Walk

Job Access – Low-Wage Jobs:

		Base Year			Ir	Interim Year			Future Year – Financially Constrained				Future Year – Strategic			
	А	Т	В	W	A T B W A			А	Т	В	W	Α	Т	В	W	
Region-wide																
Historically																
Marginalized																
Communities																
Focused																
Historically																
Marginalized																
Communities																

A – Automobile; T – Transit; B – Bicycle; W - Walk

Job Access – Middle-Wage Jobs:

		Base Year			Ir	Interim Year			Future Year – Financially Constrained				Future Year – Strategic			
	Α	Т	В	W	А	Т	В	W	Α	Т	В	W	Α	Т	В	W
Region-wide																
Historically																
Marginalized																
Communities																
Focused																
Historically																
Marginalized																
Communities																

A – Automobile; T – Transit; B – Bicycle; W - Walk

	Base	Year	Interin	n Year	Future Finan Constr	Year – cially rained	Future Year – Strategic		
	Jobs Inac	ccessible	Jobs Inac	ccessible	Jobs Ina	ccessible	Jobs Inaccessible		
	By Tr	ansit	By Tr	ansit	By Tr	ansit	By Transit		
	LW	MW	LW	MW	LW	MW	LW	MW	
Region-wide									
Historically									
Marginalized									
Communities									
Focused									
Historically									
Marginalized									
Communities									

Job Access – Transit Access Disadvantage

LW – Lower-wage; MW – Middle-wage

Key Assumptions to Method:

Dataset	Type of Data
Geospatial project information for proposed transportation projects	Observed
Employment/jobs outputs from Metroscope ¹	Forecasted

Tools Used for Analysis: Metro's Travel Demand Model, Metro's Metroscope Model

Specifically for the transportation equity assessment, populations to apply in this measure include:

- People of Color
- Persons with Limited English Proficiency
- Low-Income Households

Young people and older adults are not being proposed for assessment in this system evaluation as it considered that traveling to and from employment is less likely a priority.

Definition of Low-Wage Jobs: Jobs which pay an annual salary between \$0 - \$39,999.²

Definitions of Middle-Wage Jobs: Jobs which pay an annual salary between \$40,000 - \$65,000.³

Methods for Defining and Identifying All Jobs:

The projections (total jobs) and geographic distribution of employment is based on underlying U.S. Bureau of Labor Statistics data and assumptions regarding growth for the employment industries in MetroScope. (See MetroScope documentation regarding employment forecast.)

² Wages are set as static for the purposes of the analysis and are not indexed to inflation. Therefore, the wage bands for low-wage and middle wage will not adjust between the based-year and future year. ³ See Footnote 4.

¹ Forecasted estimates are based on MetroScope assumptions on employment industries and based off U.S. Bureau of Labor Statistics data. Documentation can be found at: http://www.oregonmetro.gov/forecastingmodels-and-model-documentation

Methods for Defining and Identifying Low and Middle-Wage Jobs:

The annual salary band was based on the average household size of three (3) and a combination of different income, program eligibility, and self-sufficiency definitions (HUD median income, UW self-sufficiency index, federal poverty level, and uniform relocation assistance and real property acquisition act) The definition of low and middle-wage jobs is not taking into consideration employer benefits provided as part of the identification of wages.

Distribution of Low and Middle-Wage Jobs Assumptions:

The distribution of low and middle-wage jobs is based on underlying U.S. Bureau of Labor Statistics data and assumptions regarding growth for the employment industries in MetroScope. (See MetroScope documentation regarding employment industry forecast assumptions.) The low and middle-wage band will not change according to inflation. Low and middle-wage jobs were determined by the wage profile of each MetroScope industry, looking at the percentage of jobs, which paid within the annual salary range. This range was applied to the employment forecast for the future year to determine the distribution.

Definition of Transit Access Disadvantage: TBD through initial baseline and beta testing work to take place prior to the conducting the transportation equity system evaluation.

Travel Time Windows by Mode⁴:

- Automobile 30 minutes*
- Transit 45 minutes*
- Bicycle 30 minutes
- Walk 20 minutes

*Includes access and egress times.

Travel Time Assumptions:

Travel time windows by mode were developed with information from the Oregon Household Activity Survey (OHAS) and research from around the country on travel time by different modes for different types of trips. Additionally, internal Metro staff consultation was conducted and work groups were provided the opportunity to give input.

Transit Service Networks Used:⁵

- Peak Transit service running from 6am 9am & 3pm 6pm
- Off-Peak Transit service running at any other time

⁴ The travel time windows represents the average number of places which can be reached within a +/- 5 minutes of the stated travel time window. For example, for automobile, the number of jobs accessed will be an average of places reached between 25 minutes – 35 minutes. This is to address in the travel demand model the potential for a "cliff effect" when a hard cut off time is used and a number of jobs may not be reached because the travel time to reach the jobs in the travel model is one (1) second beyond the cut off time. ⁵ Metro is currently transitioning how it will be developing its transit service networks in the demand model

to better reflect transit service within the model. This transition is looking at service typology. If this method is used for the system evaluation, information will be updated in the assumptions and available to the work group.

Evaluation Measure Title: Access to Community Places

(Replacing the 2014 RTP System Evaluation Measure– Access to daily needs - # of essential destinations accessible within 30 minutes by bicycling and public transit for low-income minority, senior and disabled populations)

Purpose and Goals

<u>Overall Purpose</u>: To identify whether the package of future transportation investments will increase the ability of region's residents to get to existing community places that provide/serve daily or weekly needs.

<u>Transportation Equity Purpose</u>: Furthermore, to look at how the region's future transportation investments increase access to existing community places that provide/serve daily or weekly needs, but with a particular emphasis in areas where there are high concentrations of communities of color, lower-income communities, limited English proficiency populations, older adults, and youth relative to the region.

<u>Questions to Be Addressed</u>:

The **Access to Community Places** performance measure looks to assess the following questions for the region's transportation system:

- 1) What are the number of existing community places (i.e. places which provide services or items) that can be reached on the existing transportation system by travel mode (e.g. driving, transit, biking, and walking) in a given travel time?
- 2) How does accessibility, measured by the number of existing community places reached, change (across travel modes) with the proposed set of transportation investments?

More specifically from a transportation equity perspective, the **Access to Community Places** performance measures looks to further assess the additional question:

- 1) What are the differences between the number of community places accessible by communities of color, lower-income communities, limited English proficiency populations, older adults, and youth relative to the entire region? Are there large differences in access seen between travel modes?
- 2) Are there significant differences (or lack of differences) seen between communities of color, lower-income communities, limited English proficiency populations, older adults, and youth and the region once the proposed transportation investments are added?

•	Foster vibrant communities and compact urban form	•	Promote environmental stewardship
•	Sustain economic competitiveness and prosperity	•	Enhance human health
•	Expand transportation choices		Demonstrate leadership at reducing greenhouse gas emissions
	Effective and efficient management of system	•	Ensure equity
	Enhance safety and security		

2014 RTP Goals

Function of Performance Measure

• System Evalu	ation	Project Evaluation	System Monitoring	•	Performance Target
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Associated 2014 RTP Performance Target – By 2040, increase by 50% the number of essential destinations accessible within 30 minutes by bicycling & public transit for low-income, minority, senior and disabled populations compared to 2010.

Methodology Description:

The **Access to Community Places** performance measure is calculated by using existing data from the U.S. Bureau of Labor Statistics to identify the existing community places which provide key services and/or daily needs (defined in assumptions) for people in the region. The analysis will determine the number of community places reached using existing transportation system and looking at the differences in places accessed by travel mode (automobile, transit, bicycle, and walking) in a given travel time window for the entire region and for areas with a high concentration of communities of color, lower-income communities, limited English proficiency populations, older adults, and youth to determine base year conditions. The same assessment will be conducted, but use the proposed package of transportation investments in the long-range regional transportation plan as the input to determine the future year accessibility to community places by mode for the entire region and in areas with high concentrations of communities of color, lower-income communities, limited English proficiency populations, older adults, and youth. Lastly, the measure will look at the change in the accessibility to these existing community places between the base vear and future year with added transportation investments, with an emphasis in looking at the change in communities of color, lower-income communities, limited English proficiency populations, older adults, and youth.

Output Units: Number of community places accessed by mode (# - Auto; # - Transit; # - Bike; # - Walk)

		Base Year				Interim Year			Future Year – Financially Constrained				Future Year – Strategic			
	А	Т	В	W	А	Т	В	W	А	Т	В	W	А	Т	В	W
Region-wide																
Historically																
Marginalized																
Communities																
Focused																
Historically																
Marginalized																
Communities																

Potential Output of Assessment:

A – Automobile; T – Transit; B – Bicycle; W - Walk

<u>Key Assumptions to Method</u>: Dataset Used:

Dataset	Type of Data
Geospatial project information for proposed transportation projects	Observed
U.S. Bureau of Labor Statistics – Quarterly Census of Employment and	Observed
Wages (2013)	

Tools Used for Analysis: Metro Travel Demand Model and ArcGIS

Definitions of Places:

Select North American Industry Classification System (NAICS) codes. Codes include those used as part of TriMet's Transit Equity Index with select additions based on consultation with 2018 RTP work groups, TPAC, and Metro Planning and Development Department and Diversity, Equity, and Inclusion staff.

Category	NAICS	Description
Civic/Health	491110	Postal Service
	519120	Libraries and Archives
	611110	Elementary and Secondary Schools
	611210	Junior/Community Colleges
	611310	Colleges, Universities, and Professional Schools
	624110	Child and Youth Services
	624120	Services for the Elderly and Persons with Disabilities
	624190	Other Individual and Family Services
	624210	Community Food Services
	624229	Other Community Housing Services
	624230	Emergency and Other Relief Services
	624310	Vocational Rehabilitation Services
	624410	Child Day Care Services
	624221	Temporary Shelters
	813110	Religious Organizations
Essential Retail	444130	Hardware Stores
	446110	Pharmacies and Drug Stores
	452111	Department Stores
	452990	All Other General Merchandise Stores
	812111	Barber Shops
	812112	Beauty Salons
	812310	Coin-Op Laundry
	812320	Dry Cleaning and Laundry Service
Financial/Retail	522110	Commercial Banking
	522120	Savings Institutions
	522130	Credit Unions
Food	445110	Supermarkets and Other Grocery (except convenience) Stores
Medical	621111	Offices of Physicians (except Mental Health Specialists)
	621112	Office of Physicians, Mental Health Specialists
	621210	Offices of Dentists
	621310	Offices of Chiropractors

6	521320	Offices of Optometrists
6	521330	Offices of Mental Health Practitioners (except Physicians)
6	521340	Offices of Physical, Occupational, and Speech Therapists and
6	521391	Audiologists
6	521399	Offices of Podiatrists
6	521410	Offices of All Other Miscellaneous Health Practitioners
6	521420	Family Planning Centers
6	521491	Outpatient Mental Health and Substance Abuse Centers
6	521492	HMO Medical Centers
6	521498	Kidney Dialysis Centers
6	521512	All Other Outpatient Care Centers
6	522110	Diagnostic Imaging Centers
6	522210	General Medical and Surgical Hospitals
6	522310	Psychiatric and Substance Abuse Hospitals
		Specialty (except Psychiatric and Substance Abuse) Hospitals

For the purpose of the analysis, the existing places which currently provide/serve daily needs are being used to determine access to community places in both the base year conditions and the future year. This approach is being taken because Metro's land use forecast model, Metroscope, currently does not project the locations of these types of businesses (i.e. food, commercial, retail, civic, and health-related services). In assessing the access to existing places which provide/serve daily needs, the rational is that greater access to existing community places will further increase as new places to provide services open as a result of population and employment growth.

Travel Time Windows by Mode¹:

- Automobile 20 minutes*
- Transit 30 minutes*
- Bicycle 15 minutes
- Walk 20 minutes

*Includes access and egress times.

Travel Time Assumptions:

Travel time windows by mode were developed with information from the Oregon Household Activity Survey (OHAS) and research from around the country on travel time by different modes for different types of trips. Additionally, work groups provided input and suggested manual adjustments to travel time windows as reflected in the final.

Transit Service Networks Used:²

¹ The travel time windows represents the average number of places which can be reached within a +/- 5 minutes of the stated travel time window. For example, for automobile, the number of daily needs accessed will be an average of places reached between 15 minutes – 25 minutes. This is to address in the travel demand model the potential for a "cliff effect" when a hard cut off time is used and a destination may not be reached because the travel time to reach the destination in the travel model is one (1) second beyond the cut off time.

- Peak Transit service running from 6am 9am & 3pm 6pm
- Off-Peak Transit service running at any other time

² Metro is currently transitioning how it will be developing its transit service networks in the travel demand model to better reflect transit service within the model. This transition is looking at a transit service typology. If this method is used for the system evaluation, information will be updated in the assumptions and available to the work group.

Measure #9 - Access to Bicycle and Pedestrian Parkways

Evaluation Measure Title: Access to Bicycle and Pedestrian Parkways

Purpose and Goals

<u>Overall Purpose</u>: To identify whether the package of future transportation investments will increase the number and percent of households within ½ mile of a bicycle or pedestrian parkway.

Questions to Be Addressed:

The **Access to Bicycle and Pedestrian Parkways** performance measure looks to assess the following questions for the region's transportation system:

1) How easily can people in the region get to high quality and comfortable biking and walking routes that provide mobility for non-motorized travel.

2014 RTP Goals

•	Foster vibrant communities and compact urban form	•	Promote environmental stewardship
•	Sustain economic competitiveness and prosperity	•	Enhance human health
•	Expand transportation choices	•	Demonstrate leadership at reducing greenhouse gas emissions
	Effective and efficient management of system	•	Ensure equity
•	Enhance safety and security		

Function of Performance Measure

•	System Evaluation		Project Evaluation		System Monitoring	•	Performance Target
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Associated 2014 RTP Performance Measure: RTP Target – None

Measure #9 - Access to Bicycle and Pedestrian Parkways

Methodology Description:

Evaluates household access to regional bicycle and pedestrian parkways by number and percent of homes. The regional bicycle and pedestrian parkway designations are overlaid on the existing and future transportation networks. These facilities will be used to calculate the # and % of households within $\frac{1}{2}$ mile of them.

Output Units:

and % of households

Potential Output of Assessment:

	Base	Year	Interim Year		Future Finan Const	e Year - icially rained	Future Year - Strategic		
	# of HH	% of HH	# of HH	% of HH	# of HH	# of HH % of HH		% of HH	
Bicycle Parkways									
Pedestrian Parkways									

Key Assumptions to Method:

Dataset Used:

Dataset	Type of Data
Geospatial project information for proposed transportation projects	observed
Metroscope household data at the Census block level	forecasted

Tools Used for Analysis: Metro Travel Demand Model, U.S Census,

Definitions:

Regional Bicycle Parkway: A bicycle route designed to serve as a bicycle highway providing for direct and efficient travel for large volumes of cyclists with minimal delays in different urban environments and to destinations outside the region. These bikeways connect 2040 activity centers, downtowns, institutions and green spaces within the urban area. The specific design of a

Measure #9 - Access to Bicycle and Pedestrian Parkways

bike parkway will vary depending on the land use context within which it passes through. These bikeways could be designed as an off-street trail along a stream or rail corridor, a cycle track along a main street or town center, or a bicycle boulevard through a residential neighborhood.

Regional Pedestrian Parkway: The highest functional class for pedestrian route sin the Regional Transportation Plan. They are high quality and high priority routes for pedestrian activity. Pedestrian parkways are major urban streets that provide frequent and almost frequent transit service (existing and planned) or regional trails. Adequate width and separation between pedestrians and bicyclists should be provided on shared use path parkways.

Other assumptions:

Staff is assuming equal area distribution assumption of households within a census block.

Measure #10 – Access to transit

Evaluation Measure Title: Access to transit (New System Evaluation Measure)

This methodology for this measure is under development.

Measure #11 - Access to industrial land and freight intermodal facilities

Evaluation Measure Title: **Freight – Access to industrial land and intermodal facilities** *(New System Evaluation Measure)*

Purpose and Goals

<u>Overall Purpose</u>: To identify whether the package of future transportation investments will change the accessibility to designated industrial land and freight intermodal facilities. This will be measured by determining the number of forecasted truck trips that are coming from or going to areas of industrial land and freight intermodal facilities; and evaluating any improvements in congested locations or freight bottlenecks that these truck trips encounter. Maps will display the locations for industrial land and intermodal facilities and the corresponding number of truck trips along with locations where major truck delay occurs.

2014 RTP Goals

	Foster vibrant communities and compact urban form	•	Promote environmental stewardship
•	Sustain economic competitiveness and prosperity	•	Enhance human health
	Expand transportation choices		Demonstrate leadership at reducing greenhouse gas emissions
•	Effective and efficient management of system		Ensure equity
	Enhance safety and security		

Function of Performance Measure

•	System Evaluation	•	Project Evaluation		System Monitoring		Performance Target
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Methodology Description:

This analysis uses truck volumes from the regional travel demand model at various times of the day. The hours during the day for calculating truck volumes from the model would be from 7:00 - 9:00 AM (AM peak), 1:00 - 3:00 PM (off-peak) and from 5:00 - 7:00 PM (PM peak). The congested locations or freight bottlenecks will be determined by evaluating regional freight network facilities with the highest levels of truck hours of delay. General truck trip routing will be determined by the regional travel demand model (select zone).

Freight - Access to industrial land and intermodal facilities system evaluation

performance measure is calculated by:

1. Determine the locations of industrial land and freight intermodal facilities (based on groups of TAZs), and determine the number of truck trips from the travel demand model for each of the time periods (AM peak, off-peak and PM peak).
Measure #11 - Access to industrial land and freight intermodal facilities

- 2. Determine the locations for major truck delay from maps of the freight truck delay and the magnitude of that truck delay (see measure: Congestion Freight truck delay and Cost of delay on the freight network).
- 3. Evaluate the general truck trip routes used (using select zone results) for each of the industrial land and freight intermodal facilities locations truck trips.
- 4. Evaluate all of the industrial land and freight intermodal facilities locations region-wide for improvements to accessibility (more access points and reductions in truck delay at major truck delay locations), by comparing the 2015 base year, the 2040 financially constrained, and 2040 strategic. Also evaluate each of the industrial land and freight intermodal facilities locations separately to help determine which facilities, with high levels of truck delay, are impacting truck access and could provide better accessibility with an improvement project.

Output Units:

	Base Year	Interim Year	Future Year – Financially Constrained	Future Year – Strategic
Region-wide	Truck volumes		Truck volumes	Truck volumes
	and delay		and delay	and delay
	locations		locations	locations
Separate clusters	Truck volumes		Truck volumes	Truck volumes
of TAZs for	and delay		and delay	and delay
intermodal	locations		locations	locations
facilities				
Separate clusters	Truck volumes		Truck volumes	Truck volumes
of TAZs for	and delay		and delay	and delay
industrial land	locations		locations	locations

Potential Output of Assessment:

Key Assumptions to Method

Dataset Used:

Dataset	Type of Data
Truck volumes from Travel Demand Model	Forecasted
Truck Vehicle hours of delay at major truck delay locations	Forecasted

Tools Used for Analysis: Metro Travel Demand Model

Measure #12 – Multimodal travel times

Evaluation Measure Title: Multi-modal Travel Times

Purpose and Goals

<u>Overall Purpose</u>: To identify whether the package of future transportation investments will change the travel times between key origin-destinations for the mid-day and 2-hr PM peak

Questions to Be Addressed:

The **Multi-modal travel times** performance measure looks to assess the following questions for the region's transportation system:

1) How long does it take to travel between key regional origin and destinations by driving, biking, transit and freight.

2014 RTP Goals

•	Foster vibrant communities and compact urban form	Promote environmental stewardship
•	Sustain economic competitiveness and prosperity	Enhance human health
•	Expand transportation choices	Demonstrate leadership at reducing greenhouse gas emissions
•	Effective and efficient management of system	Ensure equity
	Enhance safety and security	

Function of Performance Measure

•	System Evaluation		Project Evaluation		System Monitoring	•	Performance Target
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Associated 2014 RTP Performance Measure: RTP Target – None

Measure #12 – Multimodal travel times

Methodology Description:

Evaluates the time it takes to travel between key regional origin and destinations by driving, biking, transit and freight.

Output Units:

Minutes of travel time.

Potential Output of Assessment:

	Base	Year	Interim Year		Future Finan Const	e Year - icially rained	Future Year - Strategic		
	Mid-day	PM Peak	Mid-day	PM Peak	Mid-day	PM Peak	Mid-day	PM Peak	
Central City to									
Beaverton (auto)									
Central City to									
Beaverton									
(transit)									
Central City to									
Beaverton (bike)									

Key Assumptions to Method:

Dataset Used:

Dataset	Type of Data
Geospatial project information for proposed transportation projects	observed
Travel times by mode	forecasted

Tools Used for Analysis: Metro Travel Demand Model,

Other assumptions:

Includes "in vehicle" travel times, not the amount of time to get to and from the automobile, bicycle or transit vehicle. When a tour-based model is available in the future, this measure will include the full travel time for each mode.

Measure #13 Congestion – A) Hours of delay per person B) Interim mobility policy

Evaluation Measure Title: Congestion

Purpose and Goals

<u>Overall Purpose</u>: To identify whether the package of future transportation investments will change congestion levels as measured by vehicle hours of delay person and maps displaying locations of throughways, arterials, and regional freight network facilities that exceed the congestion threshold.

Questions to Be Addressed:

The **congestion** performance measures look to assess the following questions for the region's transportation system:

- A) How much delay is occurring for vehicles in the region
- B) Where is is it occurring in relation to the interim regional mobility policy which includes different thresholds for different facilities and locations within the region.

2014 RTP Goals

	Foster vibrant communities and compact urban form	•	Promote environmental stewardship
•	Sustain economic competitiveness and prosperity		Enhance human health
	Expand transportation choices	•	Demonstrate leadership at reducing greenhouse gas emissions
•	Effective and efficient management of system		Ensure equity
•	Enhance safety and security		

Function of Performanc Measure

•	System Evaluation	Project Evaluation	System Monitoring	•	Performance Target

Associated 2014 RTP PerformanceTarget – By 2040, reduce vehicle hours of delay (VHD) per person by 10 percent compared to 2010.

Measure #13 Congestion – A) Hours of delay per person B) Interim mobility policy

Methodology Description:

The model identifies how much delay is occurring for vehicles in the region and where it is occurring in relation to the interim regional mobility policy which includes different thresholds for different facilities and locations within the region.

Output Units:

Hours of delay

Potential Output of Assessment:

	Base Year	Interim Year	Future Year - Financially Constrained	Future Year - Strategic
Mid-day				
PM Peak				



Measure #13 Congestion – A) Hours of delay per person B) Interim mobility policy

Key Assumptions to Method:

Dataset Used:

Dataset	Type of Data
Geospatial project information for proposed transportation projects	observed

Tools Used for Analysis: Metro Travel Demand Model,

Definitions:

Motor vehicle delay is the time accrued above the travel time in congested conditions (vehicle / capacity is greater than 0.90)

Measure #13 Congestion – C) Freight truck delay D) Total cost of delay on freight network

Evaluation Measure Title: Congestion – Freight truck delay and Cost of delay on freight network

Purpose and Goals

<u>Overall Purpose:</u> To identify whether the package of future transportation investments will change the overall truck delay on the region-wide system and the regional freight network. This will be measured by truck vehicle hours of delay on these networks. Maps of the regional freight network will display locations where truck delay occurs and the magnitude of that truck delay. The cost of delay will be determined by multiplying the hours of truck delay on the regional freight network by the hourly value of time for truck trips.

2014 RTP Goals

	Foster vibrant communities and compact urban form	•	Promote environmental stewardship
•	Sustain economic competitiveness and prosperity		Enhance human health
	Expand transportation choices	•	Demonstrate leadership at reducing greenhouse gas emissions
•	Effective and efficient management of system		Ensure equity
•	Enhance safety and security		

Function of Performance Measure

System Evaluation System Evaluation System Monitoring Performance Targe	•	System Evaluation	Project Evaluation	System Monitoring	•	Performance Target	
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Associated 2014 RTP performance target: By 2040, reduce vehicle hours of delay per truck trip by 10 percent compared to 2010.

Methodology Description:

This analysis uses truck vehicle hours of delay (VHD) from the regional travel demand model (see Definitions). The selected hours during the day for calculated truck delay from the model would be from 7:00 AM to 7:00 PM. After looking at the results of these hours, the reported hours for the RTP would be determined for a morning peak hour, multiple mid-day hours and an evening peak hour. The hourly value of freight truck travel will be determined by using the value assumed in ODOT's truck model or the value in USDOT's 2015 update of "The Value of Travel Time Savings" (departmental guidance).

Congestion – Truck Vehicle Hours of Delay (VHD) system evaluation performance measure is calculated by:

1. Determining the number of hours of truck delay during each of the selected hours (both peak period and off-peak hours) on the regional freight network.

Measure #13 Congestion – C) Freight truck delay D) Total cost of delay on freight network

- 2. Comparing the regional freight network hours of truck delay for each of the selected hours between the 2015 base year, the 2040 (future year) financially constrained, and the 2040 (future year) strategic.
- 3. Determining the hourly value of freight truck travel to use for the cost of truck delay on the regional freight network.
- 4. Comparing the regional freight network cost of truck delay for each hour between the 2015 base year, the 2040 (future year) financially constrained, and the 2040 (future year) strategic.

Output Units:

Potential Output of Assessment:

	Base Year	Interim Year	Future Year – Financially Constrained	Future Year – Strategic
Region-wide	Truck VHD		Truck VHD	Truck VHD
Regional Freight Network	Truck VHD and cost of truck VHD		Truck VHD and cost of truck VHD	Truck VHD and cost of truck VHD
Highway and roadway segments within the Regional Freight Network	Truck VHD and cost of truck VHD		Truck VHD and cost of truck VHD	Truck VHD and cost of truck VHD

Key Assumptions to Method Dataset Used:

Dataset	Type of Data
Value of time for truck trips	Sourced data
Truck Vehicle hours of delay on Regional Freight Network	Forecasted

Tools Used for Analysis: Metro Travel Demand Model

Definitions:

Truck Vehicle Hours of Delay is the total truck travel time on each of the roadway segments in the travel demand model that exceed the threshold for congestion.

Measure #10 – Access to transit

Evaluation Measure Title: Transit efficiency

This methodology for this measure is under development.

Measure #10 – Access to transit

Evaluation Measure Title: Transit efficiency

This methodology for this measure is under development.

Measure #15 Climate Change

Evaluation Measure Title: Climate Change

Purpose and Goals

<u>Overall Purpose</u>: To identify how the package of future transportation investments will affect the greenhouse gas emissions per capita from transportation sources and determine whether the region is making progress towards its state and regional targets.

Questions to Be Addressed:

The **Climate Change** performance measure looks to assess the following questions for the region's transportation system:

- 1) What is the per capita of greenhouse gas emissions does proposed set of transportation investments produce? Do the tons of greenhouse gas emissions change, relative to a baseline and no-build scenario, with the proposed set of transportation investments? Are there differences in the growth?
- 2) Are the per capita of greenhouse gas emissions increasing, decreasing, or holding steady with the proposed set of transportation investments? Is the per capita greenhouse gas emissions change in proportion to population growth?
- 3) How does the proposed set of transportation investments get the region towards its greenhouse gas target(s)? (State and regional)

2014 RTP Goals

	Foster vibrant communities and compact urban form	•	Promote environmental stewardship
•	Sustain economic competitiveness and prosperity	•	Enhance human health
•	Expand transportation choices		Demonstrate leadership at reducing greenhouse gas emissions
	Effective and efficient management of system	•	Ensure equity
	Enhance safety and security		

Function of Performance Measure

Evaluation Evaluation Monitoring	• System Evaluation	Project Evaluation	System Monitoring	•	Performance Target
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Associated 2014 RTP Performance Target – Reduce per capita transportation-related greenhouse gas emissions below 2010 levels.

Methodology Description:

The **Climate Change** performance measure is calculated by using existing and proposed transportation project information and inputting the project information into the travel demand model to understand the travel behavior in the region with and without the proposed investments at key times in the future. Key travel behavior outputs include trip generated, mode split (i.e. percentage of trips taken by different transportation modes), trip distances, and vehicles miles traveled. This information is then taken into a post-processing model which includes information about vehicle fleet mix, fuel composition, and emissions rates to determine what the projected emissions of greenhouse gases would be with and without the proposed transportation

Measure #15 Climate Change

investments. The analysis will determine the tons of transportation-generated greenhouse gas emissions for the entire region. The same assessment will be conducted, but use the proposed package of transportation investments in the long-range regional transportation plan as the input to determine the future year tons of greenhouse gas emissions produced for the entire region. Finally the tons of greenhouse gas emissions will be converted to a per capita emissions rate to understand how the proposed package of transportation investments are making progress towards state and regional greenhouse gas targets.

Output Units: per capita greenhouse gas emissions and percent (%) reduction from 2010 levels.

Potential Output of Assessment:

	Base Year	Interim Year	Future Year - Financially Constrained	Future Year - Strategic
Greenhouse Gas				
(GHG) per capita				
Percent (%)				
reduction				

Key Assumptions to Method:

Dataset Used:

Dataset	Type of Data
Geospatial project information for proposed transportation projects	Observed
Greenhouse gas emissions	Forecasted

Tools Used for Analysis: Metro Travel Demand Model, ArcGIS, EPA Emissions Model – MOVES2014b

Measure #16 Clean air

Evaluation Measure Title: Clean Air

Purpose and Goals

<u>Overall Purpose</u>: To identify how the package of future transportation investments will affect the tons of vehicle emissions of air pollutants. Emphasis is placed on air pollutants: ozone (as represented by its precursors), fine particulates, coarse particulates, and transportation generated air toxics (defined in definitions).

<u>Questions to Be Addressed</u>:

The **Clean Air** performance measure looks to assess the following questions for the region's transportation system:

- 1) How many tons of air pollutant emissions does proposed set of transportation investments produce? Do the tons of air pollutant emissions change, relative to a baseline and no-build scenario, with the proposed set of transportation investments?
- 2) Are the tons of air pollutants emissions increasing, decreasing, or holding steady with the proposed set of transportation investments? If the tons of air pollutant emissions is increasing or decreasing, is the change in proportion to population growth?
- 3) How does the proposed set of transportation investments get the region towards it target of reaching zero days of at-risk exposure to transportation-related air pollution?

More specifically from a transportation equity perspective, the **Clean Air** performance measure looks to further assess the additional question:

1) What are the differences between the tons of air pollutant emissions in areas where there are high concentrations of communities of color, low-income populations, limited English proficiency populations, older adults, and youth and the entire region? Are there large differences seen between the region and the communities?

	Foster vibrant communities and compact urban form	•	Promote environmental stewardship
•	Sustain economic competitiveness and prosperity	•	Enhance human health
•	Expand transportation choices		Demonstrate leadership at reducing greenhouse gas emissions
	Effective and efficient management of system	•	Ensure equity
	Enhance safety and security		

2014 RTP Goals

Function of Performance Measure

•	System Evaluation	Project Evaluation	System Monitoring	•	Performance Target		
Δ							

Associated 2014 RTP Performance Target – By 2040, ensure zero percent population exposure to at-risk levels of air pollution from transportation sources.

Methodology Description:

Measure #16 Clean air

The **Clean Air** performance measure is calculated by using existing and proposed transportation project information and inputting the project information into the travel demand model to understand the travel behavior in the region with and without the proposed investments at key times in the future. Key travel behavior outputs include trip generated, mode split (i.e. percentage of trips taken by different transportation modes), trip distances, and vehicles miles traveled. This information is then taken into a post-processing model which includes information about vehicle fleet mix, fuel composition, and emissions rates to determine what the projected emissions of individual air pollutants would be with and without the proposed transportation investments. The analysis will determine the tons of transportation emissions per identified air pollutant (see potential output table below) for the entire region and aggregate for those areas with a high concentration of communities of color, low-income populations, limited English proficiency populations, older adults, and youth to determine base year conditions. The same assessment will be conducted, but use the proposed package of transportation investments in the long-range regional transportation plan as the input to determine the future year tons of air pollutant emissions produced for the entire region and in areas with high concentrations of communities of color, low-income populations, limited English proficiency populations, older adults, and youth. Lastly, the measure will look at the change tons of air pollutant emissions between the base year and future year with added transportation investments, with an emphasis in looking at the change in areas with communities of color, low-income populations, limited English proficiency populations, older adults, and youth.

Output Units: Tons of emissions by air pollutant (i.e. fine particulates, ozone, etc.)

	1	Base Ye	ear	Interim Year		Future Year - Financially Constrained			Future Year - Strategic			
	RW	HMC	FHMC	RW	HMC	FHMC	RW	HMC	FHMC	RW	HMC	FHMC
NOx – Nitrogen												
Oxide												
VOC – Volatile												
Organic												
Compounds												
PM2.5 – Fine												
Particulates												
PM10 – Coarse												
Particulates												
Diesel												
Particulate												
Matter plus												
Diesel Exhaust												
Organic Gases												
(Diesel PM)												
Acrolein												
Arsenic												
Benzene												
1,3-Butadiene												

Potential Output of Assessment:

Measure #16 Clean air

Chromium 6						
Formaldehyde						
Naphthalene						
Polycyclic						
Organic Matter						

RW – Region-wide; HMC – Historically Marginalized Communities; FHMC – Focused Areas of Historically Marginalized Communities

Key Assumptions to Method:

Dataset Used:

Dataset	Type of Data
Geospatial project information for proposed transportation projects	Observed
Emissions per air pollutant	Forecasted

Tools Used for Analysis: Metro Travel Demand Model, ArcGIS, EPA Emissions Model – MOVES2014b

Definitions

Transportation Generated Air Toxics:

Of the 188 air toxics identified and regulated through the Environmental Protection Agency (EPA), seven have been identified with significant contributions from mobile source (i.e. transportation sources) that pose national and regional-scale public health risk. Additionally, consultation with Oregon Department of Environmental Quality (DEQ) staff identified two more air toxics of particular interest to the region because they have been closely associated with transportation facilities in the Portland Air Toxics Study (PATS). These are:

- Acrolein
- Arsenic
- Benzene
- 1,3-Butadiene
- Chromium 6
- Diesel particulate matter plus diesel exhaust organic gases (Diesel PM)
- Formaldehyde
- Naphthalene
- Polycyclic organic matter¹

¹ EPA research work can be found at:

 $https://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/100109 guidmem.cfm$

Measure #17 Habitat impact

Evaluation Measure Title: Habitat impact

Purpose and Goals

<u>Overall Purpose</u>: To identify and flag those proposed future transportation investments within the 2018 RTP investment package which intersect with the region's identified high value habitat areas and note additional environmental consideration and potential mitigation may be needed in implementing the investment.

<u>Transportation Equity Purpose</u>: Furthermore, to look at those proposed future transportation investments within the 2018 RTP investment package which overlap with high value habitat and in areas of high concentrations with communities of color, lower-income communities, limited English proficiency populations, older adults, and youth relative to the region. These projects would be flagged and noted that in addition to further environmental considerations, other environmental justice considerations mitigation and/or strategies may be needed in implementing the investment.

Questions to Be Addressed:

The **Habitat impact** performance measure looks to assess the following questions for the region's transportation system:

- 1) What percentage of the region's proposed roadway transportation investments intersect and have may have a potential conflict with the region's resource habitats and needs further assessment of environmental considerations through project development?
- 2) What is the per-person expenditure of roadway transportation investment for the number of people region-wide which intersect the region's resource habitats?

More specifically, from the transportation equity perspective, the **Habitat impact** performance measure looks to assess the following questions:

- 1) What percentage of resource habitats overlap with areas with high concentrations of communities of color, lower-income communities, limited English proficiency populations, older adults, and youth? Are these resource habitats seeing a greater percentage of proposed roadway transportation investments which may have a potential conflict with the region's resource habitats? Is the percentage in historically underrepresented communities greater than the region?
- 2) What is the per-person expenditure of roadway transportation investment for the number of people identified within in communities of color, lower-income communities, limited English proficiency populations, older adults, and youth which intersect the region's resource habitat?

2014 RTP Goals

•	Foster vibrant communities and compact urban form	•	Promote environmental stewardship
	Sustain economic competitiveness and prosperity	•	Enhance human health
	Expand transportation choices		Demonstrate leadership at reducing greenhouse gas emissions
	Effective and efficient management of	•	Ensure equity

Measure #17 Habitat impact

system	
Enhance safety and security	

Function of Performance Measure

•	System Evaluation		Project Evaluation		System Monitoring		Performance Target
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Associated 2014 RTP Performance Measure: Percent of projects which intersect high value habitats

Methodology Description:

The method for calculating the **Habitat impact** performance measure will entail a geospatial analysis the region's proposed transportation investments which intersect the region's resource habitats. The percentage of projects which intersect resource habitats will be looked at region-wide and in areas where there is a concentration of communities of color, lower-income communities, limited English proficiency populations, older adults, and youth. Additionally, the per person expenditure of transportation investments will be calculated to determine whether the per capita roadway transportation investments which intersect/overlap with the region's high value habitats and areas where there are concentrations of historically underrepresented communities is greater.

Output Units: Percentage (%) of transportation projects intersecting identified resource habitats and per capita expenditure

	Base Year	Interim Year	Future Year – Financially Constrained	Future Year – Strategic
Region-wide				
Historically				
Marginalized				
Communities				
Focused Historically				
Marginalized				
Communities				

Potential Output of Assessment:

<u>Key Assumptions to Method</u>: Dataset Used:

Dataset	Type of Data
Geospatial project information for proposed transportation projects	Observed
Geospatial resource conservation information from Metro identified	Observed
resource and conservation habitat areas	

Tools Used for Analysis: ArcGIS

Definition of Resource Habitats:

Resource habitats are those areas with the top 25% modeled score of high value habitat or riparian quality. Habitat quality took into account factors such as habitat interior, influence of roads, total

Measure #17 Habitat impact

patch area, relative patch area, habitat friction, wetlands, and hydric soils. The riparian areas took into account criteria of floodplains, distance from streams, and distance from wetlands. The analysis and modeled scoring was conducted for the entire Portland-Vancouver region and conducted through a collaborative effort with partners across the region and topic area experts through the development in the Resource Conservation Strategy process. More detail about the high value habitats can be found at www.regionalconservationstrategy.org.

2018 RTP System Evaluation Measures Methodologies

Background information for the equity measures

(*Reflects the transportation priorities identified by historically marginalized communities and will serve as the basis for the federally-required Title VI Benefits and Burdens analysis*).

- #3 Affordability
- #5 Exposure to crash risk
- #6 Access to travel options system connectivity & completeness
- #7 Access to jobs
- #8 Access to community places
- #17 Habitat impact

Community	Definition	Geography Threshold*	Date Source
People of Color	Persons who identify as non- white.	Census tracts above the regional rate (26.5%) for people of color.	2010 Decennial Census
Low-Income	Households with incomes equal to or less than 200% of the Federal Poverty Level (2016); adjusted for household size	holds with incomesto or less than 200% ofderal Poverty Level); adjusted forhold size	
Limited English Proficiency	Persons who identify as unable "to speak English very well."	Census tracts above the regional rate (8.5%) for Limited English Proficiency AND those census tracts which were identified as "safe harbor" tracts for individual language isolation. ¹	Survey, 2009- 2013
Older Adults	Persons 65 years of age and older	Census tracts above the regional rate for Older Adults (11%) AND	2010 Decennial
Young People	Persons 17 years of age and younger	Young People (22.8%)	Census

Definition of Communities & Geography

*See attached map of communities.

¹ Safe Harbor is a provision within Title VI of the Civil Rights Act of 1964 which addresses for when and how agencies are to provide language assistance to limited English proficiency persons to ensure access to all public resources. The safe harbor provision mainly addresses translation of documents and language assistance, however for analysis purposes, it may help to identify areas where additional attention is warranted because of a concentration of language isolation. Safe harbor applies when a language isolated group constitutes 5% or 1,000 persons of the total population in the given area.

Historically Marginalized Communities – Census Tracts Above the Regional Rate and Limited English Proficiency Safe Harbor Tracts



Historically Marginalized Communities – Binary Map (YES/NO) for Transportation Equity Analysis Purpose



Focused Historically Marginalized Communities – Binary Map (YES/NO) – People of Color, Limited English Proficiency Populations, and People with Lower-Incomes with Population Density



Analysis Year	Transportation Inputs	Land use Inputs
Base Year (2015)	All transportation projects completed by 2015	
Interim Year (2027)	Proposed transportation projects to be completed by 2027 (financially constrained only)	Adopted growth distribution
Future Year (2040)	All proposed transportation to be completed by 2040 (financially constrained and strategic project lists)	MetroScope ²³

Analysis Years Assumptions and Inputs

Forecasted Methods Approach for Communities

Community	Base Year	Interim Year Horizon Yea		Horizon Year
People of Color	Identifying the correlating trans zones (TAZ) to census tracts wh than the regional rate of people	e correlating transportation analysis o census tracts which have greater nal rate of people of color.		ll not produce results the horizon year.
Low-Income	Identifying the correlating transportation analysis zones (TAZ) to census tracts which have greater than the regional rate for lower-income households.	Forecasted spatial distribution of households with incomes under 200% of the Federal Poverty Level (2016).		bution of households 0% of the Federal
Limited English Proficiency	Identifying the correlating trans zones (TAZ) to census tracts wh the regional rate of limited Engl	ng the correlating transportation analysis AZ) to census tracts which have greater than anal rate of limited English proficiency. Will not produce results for the hor vear.		Will not produce results for the horizon year.
Older Adults	Identifying the correlating transportation analysis zones (TAZ) to census tracts which have greater than the regional rate for older adults.	Forecasted spatial distribution of household with older adults.		bution of households
Young People	Identifying the correlating transportation analysis zones (TAZ) to census tracts which have greater than the regional rate for young people.	Forecasted spatial distribution of households with older adults.		bution of households

Secondary/Focused Screening Analysis

By request of the work group, the transportation equity analysis will conduct a secondary assessment of the full suite of measures, but primarily focus on a subset of historically marginalized communities. The subset is defined as:

Secondary/Focused Assessment – Subset of Historically Underrepresented Communities for Focus

² Metro Ordinance No. 16-1371. More information regarding the 2016 land use forecast can be found at: oregonmetro.gov

³ Metroscope geographically allocates population and employment projections in five year increments.

Therefore, the nearest land use forecast input to be used for the interim analysis year analysis will be 2025. This is out of respect for the decision that certain communities are not being forecasted and spatially distributed and therefore assumed static for the interim analysis.

Historically Marginalized Community	Geographic Threshold
People of Color	The census tracts which are above the regional rate for people of color AND the census tract has twice (2x) the population density of the regional average (.48 person per acre).
Low-Income	The census tracts which are above the regional rate for low- income households AND the census tract has twice (2x) the population density of the regional average (.58 person per acre).
Limited English Proficiency	The census tracts which are above the regional rate for low- income households AND those census tracts which have been identified as "safe harbor" tracts for language isolation AND the census tract has twice (2x) the population density of the regional average (.15 person per acre).

This secondary assessment is to help take a more focused look at the transportation investments being made in areas in which there are highly concentrated populations of the communities required for evaluation by federal law. Ultimately, the secondary assessment will be able to address how well the 2018 RTP investments are performing and moving towards the priority outcomes identified by historically marginalized communities in areas with the greatest concentration.

Work Group Roster

The work group consists of local jurisdictions, topical experts and representatives from MTAC and TPAC, or their designees.

Name	Affiliation	
John Mermin	Metro - Workgroup lead	
Todd Juhasz	Beaverton, MTAC	
Abbot Flatt	Clackamas County	
Kelly Rodgers	Confluence Planning	
Dan Riordan	Forest Grove	
Kelly Clarke	Gresham	
Don Odermott Christina Fera-Thomas (Alternate)	Hillsboro, TPAC	
Karla Kingsley	Kittelson & Associates Inc.	
Ken Lobeck	Metro – MTIP staff	
Denny Egner	Milwaukie, MTAC	
Jessica Berry	Multnomah County	
Pill Helstrom	Oregon Department of Land	
	Conservation & Development	
Lidwien Rahman	Oregon Department of	
	Transportation, MTAC alternate	
Phil Healy	Port of Portland, TPAC	
Judith Gray	Portland TPAC	
Peter Hurley (Alternate)		
Lynda David	Southwest Washington RTC, TPAC	
Chris Rall Transportation-4-America		
Eric Hesse	TriMet, TPAC & MTAC	
Steve Kelley	Washington County	
Erin Wardell (Alternate)		
Steve Adams	Wilsonville	

Memo



Date:	Thursday, January 19, 2017
То:	TPAC and interested parties
From:	Lake McTighe, Senior Transportation Planner
Subject:	2018 RTP: Vision Zero and Safety Plan update

Purpose

The purpose of this agenda item is to update and receive feedback from TPAC on completed elements of the updated Regional Transportation Safety Action Plan, including a regional Vision Zero target and performance measures, and regional High Injury Corridors.

Background

Safety is one of several policy focus areas for the update of the 2018 Regional Transportation Plan (RTP). Improving transportation safety by targeting fatal and severe crashes is a primary goal of the RTP update. In 2015, there were 519 fatal and severe injury crashes in the region; the number of pedestrian deaths has increased annually for the past four years. The safety work program adopted by the Metro Council calls for these key tasks:

- 1. Update safety crash data in the Metro State of Safety Report
- 2. Update safety targets and develop performance measures, consistent with MAP-21 rulemaking
- 3. Identify High Injury Corridors in the region
- 4. Update actions in the Regional Transportation Safety Action Plan
- 5. Formally adopt and incorporate it into the 2018 RTP. Identifying safety projects in the RTP will help the region track investments in safety, regardless of the funding source.

A Safety Technical Work Group has met three times since May 2016. Over the course of the three meetings the Work Group developed the following elements of the Regional Transportation Safety Action Plan, and which are presented for TPAC discussion.

- **Transportation Safety Policy Framework Report** this report provides the federal, state, regional, and local policy context for the update of the safety plan and recommends establishing a Vision Zero target for the region. Development of the report included an assessment of current state, regional and local activities and actions related to transportation safety.
- **Recommended Vision Zero target and annual targets** information on the targets are included in the attached Transportation Safety Performance Measures and Targets report. The Safety Work Group provided direction on several drafts of the target. The recommended target is consistent with the statewide target adopted by the OTC and complies with MAP-21 performance target setting requirements for MPOs and state DOTs.
- Safety system evaluation measures and a definition of safety projects information on the evaluation measures and safety project definition are included in the attached Transportation Safety Performance Measures and Targets report. The Safety, Equity, and Performance Measures Work Groups provided input throughout their development.

• **Regional High Injury Corridors** – information on the High Injury Corridors is provided in the attached report. Identification of High Injury Corridors was identified as a follow up action in the 2014 RTP as a way to help guide transportation investments in the region.

The next phase of work for the Work Group will be to incorporate these elements into an updated Regional Transportation Safety Action Plan and identify actions and strategies to meet safety targets. Metro staff seeks input from TPAC on the questions below as the work program transitions into identifying actions for the updated safety plan.

Questions for TPAC

Metro staff seeks input from TPAC on the following questions – responses from TPAC will be summarized for the updates to the Metro Council, JPACT and MPAC listed below.

- 1. Does TPAC support moving forward with the Vision Zero transportation safety targets?
- 2. Does TPAC support moving forward with the transportation safety system evaluation measures?
- 3. Does TPAC support moving forward with the Regional High Injury Corridors as a tool to help inform prioritizing investments in the 2018 RTP?

Next Steps

Metro staff will be updating the Metro Council and Metro advisory committees on Vision Zero and the Transportation Safety Plan.

- MTAC Feb 1
- Metro Council work session Feb 7
- JPACT Feb 16
- MPAC Feb 22

The Safety Work Group is scheduled to meet April 4 to discuss draft actions for the updated Regional Transportation Safety Action Plan; feedback provided by the Metro Council and regional technical and policy advisory committees will be brought back to the Work Group at this meeting.

A draft Regional Transportation Safety Action Plan is anticipated to be available for TPAC review in October 2017.

Attachments

- 1. Safety Technical Work Group members
- 2. Transportation Safety Policy Framework Report, July 2016 (*will only be provided electronically, will not be included in printed packet*)
- 3. Transportation Safety Performance Measures and Targets Report, January 2017
- 4. Regional High Injury Corridors Report, January 2017

2018 RTP Sa	2018 RTP Safety Technical Work Group				
First Name	Last Name	Title	Affiliation		
Becky	Bodoyni	Program Specialist, Community Wellness and Prevention Program	Multnomah County Health		
Katherine	Burns	Traffic Analyst, Traffic Division	Region 1, ODOT		
Tegan	Enloe	Project Manager, Public Works	Hillsboro		
Nick	Fortey	Senior Community Planner	OR Division, FHWA, U.S. DOT/ TPAC member		
Joe	Marek	Transportation Safety Program Manager, Transportation Engineer	Clackamas County		
Noel	Mickelberry	Executive Director	Oregon Walks		
Stephanie	Noll	Interim Executive Director	The Street Trust		
Jeff	Owen	Active Transportation Planner	TriMet		
Amanda	Owings	Traffic Engineer	Lake Oswego		
Luke	Pelz	Senior Transportation Planner	Beaverton		
Lidwien	Rahman	Principal Planner	Region 1, ODOT (alternate)		
Stacy	Revay	Associate Transportation Planner	Beaverton (alternate)		
Kari	Schlosshauer	Pacific Northwest Regional Policy Manager	National Safe Routes to School Partnership		
Stacy	Shetler	Principal Traffic Engineer, Department of Land Use & Transportation	Washington County (alternate)		
Chris	Strong	Transportation Planning Manager	Transportation Division, Gresham/ MTAC member		
Aszita	Mansor	Transportation Engineer	Multnomah County		
Dyami	Valentine	Senior Planner, Department of Land Use & Transportation	Washington County		
Clay	Veka	Program Manager, Vision Zero Action Plan/High Crash Corridor Program	Portland		
Zef	Wagner	Associate Planner	Portland (alternate)		
Mike	Ward	Civil Engineer, Engineering	Wilsonville		



2018 Regional Transportation Plan update

REGIONAL TRANSPORTATION SAFETY PLAN

Transportation Safety Policy Framework Report

July 2016



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Metro provides services or accommodations upon request to persons with disabilities and people who need an interpreter at public meetings. If you need a sign language interpreter, communication aid or language assistance, call 503-797-1700 or TDD/TTY 503-797-1804 (8 a.m. to 5 p.m. weekdays) 5 business days before the meeting. All Metro meetings are wheelchair accessible. For up-to-date public transportation information, visit TriMet's website at www.trimet.org.

Metro is the federally mandated metropolitan planning organization designated by the governor to develop an overall transportation plan and to allocate federal funds for the region.

The Joint Policy Advisory Committee on Transportation (JPACT) is a 17-member committee that provides a forum for elected officials and representatives of agencies involved in transportation to evaluate transportation needs in the region and to make recommendations to the Metro Council.

The established decision-making process assures a well-balanced regional transportation system and involves local elected officials directly in decisions that help the Metro Council develop regional transportation policies, including allocating transportation funds.

Project website: www.oregonmetro.gov/rtp

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INTRODUCTION

This report provides an overview of the policies that currently exist at the federal, state and regional level related to transportation safety, highlighting those that have changed since the region's first Regional Transportation Safety Plan (RTSP) was completed in March 2012.¹ In addition to federal, state and region policies, this report includes an overview of equity and health polices as they relate to transportation safety. It also includes city, county and transit profiles documenting policies and actions taken at the local level.

The information in this report will provide the content for the "Federal, State & Regional Policy Framework" chapter of the updated Regional Transportation Safety Plan, planned for adoption in 2018 as part of the update of the 2018 Regional Transportation Plan. More importantly, however, the information in this report sets the direction and framework for the update of the Regional Transportation Safety Plan, including updated goals, performance measures, targets, and actions.

Since the Regional Transportation Safety Plan was completed in 2012, transportation safety has continued to be a central focus at the federal, state, regional and local levels. Efforts to eliminate fatal and serious crashes, Towards Zero Deaths and Vision Zero, have expanded across the country; states, regions, counties and cities are adopting Towards Zero Deaths or Vision Zero in an effort to highlight the urgency of improving transportation safety and to provide a policy framework that leads to less fatal and serious crashes sooner.

Public health and equity are also being tied more explicitly to transportation safety policies because of the direct relationship of crashes to health, and the growing recognition that some populations, including people with low incomes and older adults, can be disproportionately impacted by crashes.

Liability for jurisdictions and agencies is a concern that often comes up when identifying transportation safety problems and developing policy for safety plans. **23 United States Code 409** (liability code) addresses this issue, stating that "Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data."

²

¹ See Section 2.0 "Federal, State & Regional Policy Framework" in the 2012 Regional Transportation Safety Plan.

² 23 United States Code 409 (liability code) <u>https://www.gpo.gov/fdsys/pkg/USCODE-2011-title23/pdf/USCODE-2011-title23-chap4-sec409.pdf</u>

FEDERAL POLICIES

The federal transportation planning process requires Metropolitan Planning Organizations (MPOs) to address ten planning factors, including safety.³ The degree to which each factor is addressed will vary depending on the unique conditions of the area, but efforts should be made to think through and carefully consider how to address each factor.

The safety factor has created challenges for some MPOs as to how safety should be addressed. SAFETEA-LU established the Highway Safety Improvement Program (HSIP) as a core Federalaid program for the first time indicating the importance attached to transportation safety at the federal level. The overall purpose of this program is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads through the implementation of infrastructurerelated highway safety improvements.

Since the Regional Transportation Safety Plan was completed in March 2012, two Federal transportation reauthorization bills were signed into law: MAP-21 and the FAST Act. Both bills continue the focus and prioritization of safety in SAFETEA-LU.⁴ One of the major policy changes, since 2012, is the creation of Federal transportation performance measures, including a Federal Safety performance measure.

MAP-21

On July 6, 2012, President Obama signed into law a two year transportation reauthorization bill, the Moving Ahead for Progress in the 21st Century Act (MAP-21).⁵

MAP-21 established Safety Performance Measures - MAP-21 established a performance-based Federal program, with safety being one of the six performance areas. The Final Rule for the Safety Performance Measures and the Highway Safety Improvement Program (which revised existing regulation in 23 CFR 924) was released in March, 2016.^{6,7} Metro will be required to report on the safety and other federal performance measures. Each of the performance

⁷ MMUCC: <u>http://www.mmucc.us/sites/default/files/MMUCC_4th_Ed.pdf</u> Some attribute

³ The Metropolitan Planning Program under SAFETEA-LU provided funding for the integration of transportation planning processes in the Metropolitan Planning Organizations (MPOs) into a unified metropolitan transportation planning process. Title 23 of the United States Code describes Federal Planning Factors issued by Congress to emphasize planning factors from a national perspective. Under Map-21 these planning factors remained unchanged. Two additional planning factors were added under the FAST-ACT. ⁴ Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, signed into law in 2005. The overall purpose of the HSIP program is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads through the implementation of infrastructure-related safety improvements. ⁵ https://www.fhwa.dot.gov/map21/safety_overview.cfm

⁶ The Federal Highway Administration (FHWA) published the Highway Safety Improvement Program (HSIP) and Safety Performance Management Measures (Safety PM) Final Rules in the Federal Register on March 15, 2016, with an effective date of April 14, 2016. <u>http://safety.fhwa.dot.gov/hsip/spm/measures_final_rules.cfm</u>

names and definitions changed from the 3rd Edition of MMUCC even though the "KABCO" acronym remains. Most notably, "Suspected Serious Injury" (A) has replaced "Incapacitating Injury" and "Suspected Minor Injury" (B) has replaced "Non-incapacitating Injury."

measures are required to have an annual target, set by states and MPOs. The targets are based on a five-year rolling average.⁸

The **Safety Performance Measure Final Rule** establishes five performance measures to carry out the HSIP. (1) Number of Fatalities, (2) Rate of Fatalities per 100 million VMT, (3) Number of Serious Injuries, (4) Rate of Serious Injuries per 100 million VMT, and (5) Number of Non-motorized Fatalities and Non-motorized Serious Injuries. The measures will be calculated based on a 5-year rolling average. The new rule establishes the process for State DOTs and MPOs to establish their safety targets and report on progress towards the safety targets. Both Oregon's DOT and Metro will need to set targets for the Federal performance measures.

These safety performance measures are applicable to all public roads regardless of ownership or functional classification. The Safety Performance Measure Final Rule also establishes a common national definition for serious injuries, determined using MMUCC, which utilizes the KABCO scale.

The **HSIP Rule** updates the existing HSIP requirements under 23 CFR 924 to be consistent with the MAP-21 Act and the FAST Act, and to clarify existing program requirements. Specifically, the HSIP Final Rule contains three major policy changes: Strategic Highway Safety Plan (SHSP) Updates, HSIP Report Content and Schedule, and the Subset of the Model Inventory of Roadway Elements (MIRE).

MAP-21 increased size of HSIP - MAP-21 increased the size of the Highway Safety Improvement Program (HSIP). MAP-21 supported the Department of Transportation's (DOT) aggressive safety agenda, and continued the HSIP, doubling funding for infrastructure safety, strengthening the linkage among modal safety programs, and creating a positive agenda to make significant progress in reducing highway fatalities. It also continued to build on other aggressive safety efforts, including the Department's fight against distracted driving and its push to improve transit and motor carrier safety.

MAP-21 special rule for drivers and pedestrians over 65 - MAP-21 also includes a special rule (23 U.S.C. 148(g)(2)) related to drivers and pedestrians over 65: if statewide traffic fatalities and serious injuries per capita for these groups increase during the most recent two-year period for which data are available, the state must include strategies in its SHSP to address those issues.

FAST Act

Fixing America's Surface Transportation (FAST Act) passed Congress in December 2015, replacing MAP-21. The FAST Act continues the performance-based program implementation as enacted in MAP-21, and establishes a Performance Data Support Program. No new performance measures were added. Overall HSIP funding levels are maintained at the current baseline.

⁸ For the update of the Oregon Transportation Safety Action Plan, ODOT provides summary of the federal rule and relationship to safety performance targets. https://www.oregon.gov/ODOT/TD/TP/TSAP/201604 Memo FederalRuleSummary.pdf

FAST Act supports flexibility in design – the FAST Act adds the AASHTO Highway Safety Manual and the Urban Street Design Guide by the National Association of City Transportation Officials to the list of resources to be utilized for design criteria development. Local entities that are direct recipients of Federal dollars may be allowed to use a design publication that is different than one used by their State DOT. Additionally, the FHWA has recently released multiple resources that support and provide more guidance on flexibility in design, especially for bicycle and pedestrian facilities.⁹

Additional FAST ACT policy changes related to safety¹⁰

- Removes MAP-21 eligibility which allowed use of Highway Safety Improvement Program funds for non-infrastructure safety programs, such as education and enforcement activities.
- Requires FMCSA to remove safety scores assigned to truck companies from a public website.
- Prohibits rental car agencies and car dealers with fleets of more than 35 cars from renting vehicles that have been recalled but not repaired.
- Triples the maximum fine the NHTSA can levy against an automaker that violates safety defect regulations from \$35 million to \$105 million per violation.
- Doubles the time automakers would have to retain safety records from five years to ten years.
- Requires the government to revise the 5-star rating system for new cars to reflect not only the ability of a vehicle to protect passengers in a crash, but also whether the vehicle comes equipped with crash avoidance systems like automatic braking and lane-change monitoring.
- Provides \$21 million for research into in-vehicle sensor technology that can determine if a driver has a dangerously high level of alcohol in his or her body and automatically lock the ignition.
- Requires a study on the impacts of marijuana-impaired driving.
- Sec. 1105 Nationally Significant Freight and Highway Projects (NEW) projects are required to include safety benefits.
- Safety data collection now required on rural roads.
- Eliminates the need for State DOTs to collect safety data and information on unpaved/gravel roads.

⁹ FHWA Bicycle and Pedestrian Program Resources:

ww.fhwa.dot.gov/environment/bicycle_pedestrian/index.cfm ¹⁰ AASHTO Summary of the FAST Act: <u>http://fast.transportation.org/Documents/AASHTO%20Summary%20of%20FAST%20Act%202015-12-</u> 16%20FINAL.pdf

• If a State DOT does not achieve or make significant progress toward achieving targets in any performance measurement area after one reporting cycle, State must submit a report describing the actions they will undertake to achieve their targets in the future.

Toward Zero Deaths

The Federal focus on developing a national strategy for Towards Zero Deaths has continued since the Regional Transportation Safety Action Plan was completed in March 2012.¹¹ The Toward Zero Deaths (TZD) vision is a way of clearly and succinctly describing how an organization, or an individual, is going to approach safety - even one death on our transportation system is unacceptable. The FHWA has adopted a national target of zero deaths, including bicycle and pedestrian deaths.¹²

We embrace the vision of Toward Zero Deaths; it provides an overarching and common vision that drives and focuses our efforts to achieve our shared goal to eliminate injuries and fatalities on our roadways. The U.S. Department of Transportation will do our part by aggressively using all tools at our disposal - research into new safety systems and technologies, campaigns to educate the public, investments in infrastructure and collaboration with all of our government partners to support strong laws and data-driven approaches to improve safety.

-U.S. Transportation Secretary Anthony Foxx

FHWA has a Safety Strategic Plan to focus different offices at FHWA on a common safety vision.¹³ Since 2012, the following elements of the strategy have been developed:

- A growing number of state and cities have adopted "Zero" fatality visions.¹⁴
- Published Toward Zero Deaths: A National Strategy on Highway Safety (June, 2014), part of USDOT's development of a national strategy with National Cooperative Highway Research Program.¹⁵

Global Actions

As a member of the United Nations, the United States is partner to the "Global Plan for the Decade of Action for Road Safety 2011-2020."16 The plan identifies four pillars and associated activities to reduce forecast level of road traffic fatalities around the world by 2020: Road Safety Management, Safer Roads and Mobility, Safer Vehicles, Safer Road Users, and Post Crash Response.

¹¹ US DOT FHWA Safety, Toward Zero Deaths: http://safety.fhwa.dot.gov/tzd/

¹² FHWA Strategic Agenda for Bicycle and Pedestrian Transportation

https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/strategic_agenda/fhwahep16086.p df

¹³ Safer Roads for a Safer Future- a Joint Safety Strategic Plan <u>http://www.towardzerodeaths.org/strategy/</u>

¹⁴ Strategic Highway Safety Plan Community of Practice identifies state's that support Toward Zero Deaths in the State Highway Safety Plan https://rspcb.safety.fhwa.dot.gov/shsp_cop.aspx

¹⁵ Toward Zero Deaths: A National Strategy on Highway Safety (June 2014) http://www.towardzerodeaths.org/strategy/ ¹⁶ http://www.who.int/roadsafety/decade_of_action/plan/plan_english.pdf?ua=1
STATE POLICIES

Safety continues to be an important focus in Oregon's transportation plans and policies. The Oregon Department of Transportation has been expanding its focus to include non-state owned facilities in programs such as the All Roads Transportation Safety (ARTS) program and the Safety Priority Index System (SPIS). One of the main areas for policy changes at the state level will be with the adoption of the updated Transportation Safety Action Plan (TSAP) in 2016.

In 2013, ODOT and the Oregon Health Authority (OHA), Public Health Division, officially signed a Memorandum of Agreement on coordination and joint policy objectives. The two agencies identified joint work tasks that will create efficiencies and leverage resources, such as data collection and research.

Oregon Transportation Plan

The Oregon Transportation Plan (OTP) is the long-range blueprint for the state's transportation system. The OTP's Goal 5 – Safety and Security, sets statewide policy for improving the safety for all modes and transportation facilities. The OTP serves as the framework for the Oregon Transportation Safety Action Plan, and all ODOT modal and topic plans. The Transportation Safety Action Plan serves as Oregon's Strategic Highway Safety Plan, as required by federal law.

Oregon Transportation Safety Action Plan

Oregon is in the process of updating the state's Transportation Safety Action Plan (TSAP).¹⁷ The existing Transportation Safety Action Plan was adopted in 2011 and focuses primarily on implementing actions. It is adopted by the Oregon Transportation Commission and establishes the state's approach to transportation safety. The Plan serves as Oregon's Strategic Highway Safety Plan (SHSP) as required by federal law. This federal law, now the FAST Act, continues a requirement that SHSPs be updated every five years, and adds additional requirements for inclusion of Highway Safety Improvement Program planning elements. The TSAP also serves as Oregon's long-range safety policy plan that is integrated with ODOT's other long-range transportation plans and refines the direction of the Oregon Transportation Plan (OTP). State DOTs are required to consult with MPOs as part of the SHSP (TSAP) development.

Like the 2011 Plan, the updated TSAP will set statewide vision, goals, polices, strategies, targets and performance measures for reducing fatalities and serious injuries on the state transportation system. A vision statement for the plan has been finalized by the TSAP Policy Advisory Committee. The Committee will develop targets and performance measures to achieve the vision. The current 2011 Oregon TSAP sets a target of 9.25 deaths per 100,000 in 2020 and 8.75 per 100,000 in 2030. The draft plan identifies specific actions for vulnerable users, risky

¹⁷ ODOT Transportation Safety Action Plan update <u>https://www.oregon.gov/ODOT/TD/TP/Pages/tsap.aspx</u>

behaviors, infrastructure, and improved systems and includes a zero deaths and life-changing injuries vision.¹⁸

Oregon envisions no deaths or life-changing injuries on Oregon's transportation system by 2035. —Preliminary Report, Oregon Transportation Safety Action Plan Update, Nov. 2015 Draft

Oregon Highway Plan

Based on both the OTP and TSAP, the Oregon Highway Plan (1999), the plan emphasizes "Efficient management of the system to increase safety, preserve the system and extend its capacity." Safety is referred to throughout the plan. Goal 2: System Management seeks to create a transportation system the "Enhances system efficiency and safety." Policy 2F: Traffic Safety, calls for the state to continually improve safety for all users of the highway system and to address safety problems with treatments involving engineering, education, enforcement, and emergency medical services. A set of actions are identified to implement Policy 2F. Under Investment Policies, the plan states that safety is an element of all major programs, and that it is the policy of the State of Oregon to place the highest priority for making investments in the state highway system on safety and managing and preserving the physical infrastructure." The plan also directs ODOT to: "Focus safety expenditures where the greatest number of people are being killed or seriously injured."

Other State Plans

The TSAP is a one of several modal and topic plans that informs and updates the Oregon Transportation Plan. Since 2012, the state has developed Oregon's first Transportation Options Plan (2015), has updated the Oregon Bicycle and Pedestrian Plan (2015 draft, pending adoption), and is in the process of starting an updated to the Oregon Public Transportation Plan. Since 2012, ODOT's Traffic-Roadway Section has also developed several plans and guidelines that focus on specific safety issues, including bicycle and pedestrian, intersections, bicycle and pedestrian safety, and safe routes to school. A plan for roadway departure safety was developed in 2010.

Oregon Transportation Options Plan –This topic plan addresses safety throughout. The first goal of the plan is related to safety, and notes that safety is a public health issue.

Oregon Bicycle and Pedestrian Plan - The Oregon Bicycle and Pedestrian Plan is proposed for adoption by the Oregon Transportation Commission sometime this year. Safety is a major focus

¹⁸ Vulnerable Users, Risky Behaviors, Infrastructure and Improved Systems Actions Matrices: <u>https://www.oregon.gov/ODOT/TD/TP/TSAP/201604_VulnerableUserActions.pdf</u> <u>https://www.oregon.gov/ODOT/TD/TP/TSAP/201604_RiskyBehaviorActions.pdf</u> <u>https://www.oregon.gov/ODOT/TD/TP/TSAP/201604_InfrastructureActions.pdf</u> <u>https://www.oregon.gov/ODOT/TD/TP/TSAP/201604_InfrastructureActions.pdf</u>

area of the plan which establishes a new safety goal, as well as policies and actions to improve safety for people walking and bicycling.

Eliminate pedestrian and bicycle fatalities and serious injuries, and improve the overall sense of safety of those who bike or walk.

-Goal 1: Safety, Oregon Bicycle and Pedestrian Plan Update, Nov. 2015 Draft To provide a safe transportation system through investments in education and training for roadway designers, operators, and users of all modes.

-Safety, Goal 1, Oregon Transportation Options Plan, 2015

Bicycle and Pedestrian Safety Implementation Plan- In 2014, the Traffic-Roadway Section developed the Bicycle and Pedestrian Safety Implementation Plan (following up on the 2010 Roadway Departure Safety Plan). The plan identifies high priority locations on both state and non-state roadways using a crash based (hot-spot) and risk-based systemic methodology. The plan provides a toolbox of countermeasures.

Oregon Intersection Safety Implementation Plan – Completed in June 2012, ODOT partnered with FHWA to develop this plan that focuses on reducing crashes at intersections. Countermeasures for each Region were developed to apply both systemic improvements as well as hot spot improvements.

A Guide to School Area Safety – Draft February 2016 – updates a 2009 guide. The guide clearly states that it does not set policy, but does provide a comprehensive reference

Implementing the Highway Safety Improvement Program

In addition to updating the TSAP, ODOT has developed resources to support implementation of the Highway Safety Improvement Program (HSIP).

ODOT Highway Safety Improvement Guide - In April 2016, ODOT published the "ODOT Highway Safety Improvement (HSIP) Guide."¹⁹ The purpose of the guidebook is to document program philosophy and the project selection process for all Highway Safety funding, including HSIP funds. A process was developed and piloted in 2012 to include both on-state and off-state highways into the Safety Priority Index System (SPIS), making it easier to dedicate HSIP funding to these roadways. ODOT has also developed guidance on the application of the Highway Safety Manual.²⁰

All Roads Transportation Safety - Following the Federal HSIP requirements, ODOT has developed a new safety program, known as the All Roads Transportation Safety (ARTS)

¹⁹ <u>https://www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/docs/pdf/odot_safety_program_guide.pdf</u>

²⁰ The 1st Edition of the Highway Safety Manual (HSM) was published by the American Association of State Highway Transportation Officials (AASHTO) in 2010. It was developed to help measurably reduce the frequency and severity of crashes on highways by providing tools for considering safety in the planning and project development processes. <u>https://www.oregon.gov/ODOT/HWY/TRAFFIC-</u> <u>ROADWAY/Pages/highway_safety_manual.aspx</u>

Program, which addresses safety on all public roads including non-state roadways. ODOT worked with the representatives from the League of Oregon Cities (LOC) and the Association of Oregon Counties (AOC) to document principles for a jurisdictionally blind safety program for Oregon to address safety on all public roads of the state, which eventually led to the development of the ARTS Program. The "ODOT Highway Safety Improvement (HSIP) Guide" provides guidelines for ARTS. ²¹

²¹ <u>https://www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/docs/pdf/odot_safety_program_guide.pdf</u>

REGIONAL POLICIES

Several new plans and policies have been adopted by Metro since the Regional Transportation Safety Plan was completed in 2012. These plans and policies continue the region's commitment to a safe transportation system that serves all people equitably.

2014 Regional Transportation Plan

The region updated its transportation system plan in 2014. The plan continues the focus on outcomes based planning. The regional vision, goals, targets and performance measures related to safety did not change substantially in the updated plan. The regional safety target was slightly updated to compare crash numbers to a combined average, as opposed to one year of crash data.²²

By 2040, reduce the number of fatal and severe injury crashes for pedestrians, bicyclists, and motor vehicle occupants each by 50% compared to 2007-2011.

-Regional Transportation Safety Performance Target, 2014 RTP

Two goals in the 2014 RTP directly relate to safety. Goal 5: Enhance Safety and Security states that multi-modal transportation and infrastructure and services must be safe and secure for the public and goods movement. Goal 7: Enhance Public Health states that multi-modal transportation infrastructure and services provide safe, comfortable and convenient options. Policy 1 of the Arterial and Throughway Network Vision is to "Build a well-connected network of complete streets that prioritize safe and convenient pedestrian and bicycle access." This policy notes that "safety is a primary concern on the regional arterial system" and directs Metro to develop "an objective metric to measure safety on the region's arterials, regardless of jurisdiction."

Climate Smart Strategy

Adopted in 2014, the Climate Smart Strategy for the Portland metropolitan region identifies safety in several of its strategy policy areas and performance measures were identified to track progress.²³ The Climate Smart Strategy identifies a set of possible actions, for the state, Metro, cities and counties, and special districts to implement the strategy and policy areas – many of the actions relate to transportation safety.

²² <u>http://www.oregonmetro.gov/regional-transportation-plan</u>

²³ http://www.oregonmetro.gov/climate-smart-strategy

Policy Area: Make biking and walking safe and convenient Safety Measure: Bike and pedestrian fatal and severe injury crashes (existing)

Policy Area: Make streets and highways safe, reliable and connected Safety Measure: Motor vehicle, bike and pedestrian fatal and severe injury crashes (existing)

- Climate Smart Strategy for the Portland metropolitan region,2014

2014 Regional Active Transportation Plan

Safety for people of all ages and abilities is a primary topic in the Regional Active Transportation Plan (ATP)and is reflected in the plan's vision, recommendations, policies and actions.

Policy 1: Make walking and bicycling the most convenient, safe and enjoyable transportation choices for short trips less than three miles.

Policy 2: Develop well-connected regional pedestrian and bicycle routes and districts integrated with transit and nature that prioritize safe, convenient, accessible and comfortable pedestrian and bicycle access for all ages and abilities.

- Regional Active Transportation Plan, 2014

Recommendation #2 in the ATP "Make it safe to walk and ride a bicycle for transportation" is one of nine recommendations in the ATP. The recommendation identifies filling gaps in the bike and pedestrian networks, providing more frequent roadway crossings, providing more separation from traffic, designing facilities so that walking and bicycling is safe and comfortable for people of all ages and abilities, and increasing education and awareness as actions to support implementing the recommendation.

SOCIAL EQUITY RELATED POLICIES

Federal, state and regional transportation equity policies related to transportation refer to safe transportation systems. However, equity has not typically been addressed explicitly in transportation safety plans, including the 2012 Regional Transportation Safety Plan. There is, however, a growing practice of applying an "equity lens" to all areas of planning and identifying equity in goals, policies, actions, targets and performance areas.

Metro has established a Transportation Equity Work Group for the 2018 RTP update. This work group will be the primary place where equity transportation policies and performance measures will be examined, and will coordinate with the Safety and other RTP technical work groups. Safety has been identified as an important topic area by the work group.

Federal Regulations

Policy context research developed for the RTP Transportation Equity Work Group provide an overview of federal and state requirements for incorporating social equity in regional transportation planning and an assessment of regional equity policies. ²⁴ The research identifies Federal regulations and guidance, starting in the 1960s through the 2010s, concerning transportation equity in regional plans; while there is no explicit direction to address equity in transportation safety plans, it is clear that equity should guide planning overall.

State and Regional Related Policies

- *Oregon Statewide Planning Goal 12: Transportation* States that transportation plans shall "meet the needs of the transportation disadvantaged" by improving transportation options.
- *Oregon Transportation Plan Policy 1.2* Equity, Efficiency and Travel Choices: It is the policy of the State of Oregon to promote a transportation system with multiple travel choices that are easy to use, reliable, cost-effective and accessible to all potential users, including the transportation disadvantaged.
- *Metro Six Desired Outcomes* (adopted in the Regional Framework Plan in 2010)– Equity is one of the Six Desired Outcomes.²⁵ One of the key recommendations from the Equity Baseline Framework Report developed in 2015 was to apply an "Equity + 5" framework to the Six Desired Outcomes meaning that each of the other five Desired Outcomes, including "Safe and Reliable Transportation," would be assessed through an equity lens. The framework has not been formally approved by the Metro Council and does not replace Metro's Six Desired Outcomes. The Equity + 5 framework is likely to be considered as part

²⁴ Aaron Golub, Katherine Selin, Portland State University. April 5, 2016 Memo to Metro Transportation Equity Work Group. "Review of Federal and State Requirements for Incorporating Social Equity in Regional Transportation Planning." Grace Cho, Metro. April 5, 2016 Memo to the Transportation Equity Work group "Regional Policy and Implementation Tools – Overview of Policies Related to Social Equity."

²⁵ The Six Desired Outcomes are: Equity, Vibrant Communities, Leadership on Climate Change, Transportation Choices, Economic Prosperity, Clean Air and Water.

of the recommendations for adoption consideration as part of Metro's Strategic Plan to Advance Racial Equity, Diversity, and Inclusion.

- 2014 RTP Outcomes-Based Framework: Equity, Environment and Economy The RTP uses an outcomes based framework to inform transportation planning and investment decisions based on these three balanced objectives. The intent is that Equity, is inherent in all of the policies.
- *2014 Regional Transportation Plan, Goal: 8 Ensure Equity-* The benefits and adverse impacts of regional transportation planning, programs and investment decisions are equitably distributed among population demographics and geography, considering different parts of the region and census block groups with different incomes, races and ethnicities.
- 2014 RTP Regional Active Transportation Network Vision, Policy 5: Ensure that the regional bicycle and pedestrian network equitably serves all people.

PUBLIC HEALTH RELATED POLICIES

Increasingly, transportation plans and policies are being viewed through the public health lens, and the level of fatal and severe injury crashes is being described as a public health issue. Like equity, public health policies can be incorporated into transportation safety plans and policies. There are many plans, policies and reports that link public health, including traffic safety, and transportation. The following summary is not intended to be comprehensive, but to provide a starting place for understanding how the link between traffic safety and health has thus far been addressed in policies.

International

Reducing road traffic fatalities and injuries is approached as health issue and is a program of the World Health Organization. A "Global Status Report on Road Safety" is released every year, along with many other resources and data. ²⁶ WHO is a partner in the Decade of Action Plan.

Federal

Although federal agencies do not require consideration of public health in transportation decisions, several US DOT planning factors are implicitly related to healthy communities, such as quality of life, economic vitality, safety, and energy conservation.

• US Department of Health and Human Services, Step It UP! The Surgeon Generals Call to Action to Promote Walking and Walkable Communities – Goal 2- "Design Communities to Make it Safe and Easy to Walk for People of All Ages and Abilities." Strategy 2.A. Design and maintain streets and sidewalks so that walking is safe and easy."²⁷

State and Regional Related Policies

Not all current state and regional health related transportation policies do not explicitly link reducing fatalities and injuries with public health, but several do, and current research and reports point to integrating the policies more.

The health of Oregonians is also directly connected to transportation safety. -Oregon Transportation Options Plan, 2015

- *Oregon Transportation Plan* Two policies in the OTP mention health: Goal 1 Mobility and Accessibility and Policy 4.3 Creating Communities.
- *ODOT, Oregon Bicycle and Pedestrian Plan Health and Transportation White Paper, November 2014* Provides a summary of transportation and health related policies. Policy

²⁶ <u>http://www.who.int/violence_injury_prevention/road_safety_status/2015/en/</u>

²⁷ http://www.cdc.gov/physicalactivity/walking/call-to-action/index.htm?s_cid=bb-dnpao-calltoaction-002

considerations indentified in the paper include supporting integrating health into transportation planning.

- Oregon Health Authority,, Oregon Pedestrian Safety Policy and Systems Change Strategies, 2012-2015²⁸ This best practices summary provides policy, systems and environmental change strategies for improved pedestrian safety in Oregon.
- Oregon Health Authority, Oregon Injury and Violence Prevention Plan, 2016-2020²⁹- The Motor Vehicle Traffic Injuries Section of this plan identifies a goal to reduce deaths and injuries caused by motor vehicle traffic (MVT). It identifies a target to reduce the overall MVT mortality rate to below 7 per 100,000, and reduce MVT deaths among older drivers (65 years of age and older) to < 10 per 100,000. The plan includes the National Healthy People 2020 Objectives, and strategies for preventing fatalities.
- Oregon Health Authority, Community Climate Choices Health Impact Assessment³⁰ This HIA was conducted for the Regional Climate Smart Strategy. It includes findings related to Traffic Safety and concludes that more aggressive plans to reduce reliance on single-occupancy vehicles have more aggressive traffic safety benefits and avoid more traffic fatalities. The HIA includes a set of recommendations to Metro from the Public health Department to reduce traffic fatalities

In order to reduce the risk of increased exposure to traffic injury and air pollution for all road users, PHD recommends that Metro prioritize the design and maintenance of non-automobile facilities by:

-Including safety features for pedestrians and bicyclists such as separation from motorized traffic when possible. Prioritize non-automobile users in design and maintenance of streets.
 -Providing a parallel bicycle route one block removed from high-volume roads when feasible to reduce exposure to localized pollution while still maintaining access to community destinations.
 - Oregon Health Authority, Community Climate Choices Health Impact Assessment

• 2014 Regional Transportation Plan, Goal 7: Enhance Human Health – Multi-modal transportation infrastructure and services provide safe, comfortable and convenient options that support active living and physical activity, and minimize transportation-related pollution that negatively impacts human health.

 ²⁸ <u>http://www.safekidsoregon.org/wp-content/uploads/2013/07/OHA8611_-OR-Safety-Policy_final.pdf</u>
 ²⁹ https://public.health.oregon.gov/DiseasesConditions/InjuryFatalityData/Documents/OregonInjuryPreventio_

²⁷<u>https://public.health.oregon.gov/DiseasesConditions/InjuryFatalityData/Documents/OregonInjuryPreventio</u> <u>nPlan.pdf</u>

³⁰<u>https://public.health.oregon.gov/HealthyEnvironments/TrackingAssessment/HealthImpactAssessment/Documents/CCC%20HIA/CCC%20HIA%20031714%20FINAL_version%201.2.pdf</u>

LOCAL POLICIES

Local agencies across the region are implementing a wide variety of plans and actions to improve the safety of the region's transportation system. The following updated local profiles were submitted by staff to provide a snapshot of efforts underway since 2012 by city, county and transit agencies.

Beaverton – The City of Beaverton's Comprehensive Plan Transportation Element includes Goal 6.2.3, "A safe transportation system" and policies and actions to improve traffic safety through engineering, education and enforcement. The City monitors intersection collision history through Washington County and ODOT's safety priority index system. Intersections with high collision rates are given special attention for safety improvements. Also, as ODOT crash reports are pulled by the Transportation Division they are reviewed to reveal changes in crash patterns. The source of new trends is investigated and geometric improvements and/or changes to policy are identified as a way to resolve high crash rates and are implemented. Reporting of safety issues is available by phone, on-line, and at public meetings. The Beaverton Police Department also monitors crash information for subsequent analysis and potential actions. In addition, the City has partnered with ODOT and Washington County to complete a Transportation Safety Action Plan for the areas in and around the Creekside District and for the Old Town section of downtown Beaverton. The City has also partnered with Washington County and the City of Hillsboro on a plan to improve safety and access to transit along TV Highway. The plan calls for signalized crossings, separated bike lanes (where feasible), the provision of pedestrian islands, and general geometric upgrades to improve the pedestrian and bicycling environment.

Gresham –The City of Gresham puts a high importance on safety with a number of safety policies, programs and projects. The City's Transportation Subcommittee provides recommendations for safety policies, programs and projects. City staff track safety data through analysis of annual top 10 crash locations in the city. The analysis is to better understand fatalities and injury accidents, identify crash trends, monitor issues and identify countermeasures for prevention. A City Safety Education Program enhances safety for bicyclists, walkers, transit users and motorists and teaches all to share the road. Other programs and amenities that support bicyclists, walkers and transit users include: bike rack installations, bike helmet distributions and distribution of a City Bicycle Guide, and a partnership with Gresham Police for Crosswalk Enforcement Actions, resulting in warnings or citation to drivers, bicyclists and pedestrian that do not follow Oregon crosswalk laws. The City also partners with local schools to provide resources and opportunities to make walking, biking and rolling to school a fun and safe experience through its Safe Routes to Schools Program.

Hillsboro – The City is committed to creating a safe environment for travelers of all modes. City staff respond to and investigate safety related citizen requests, which often involves review of crash records, field work, and more. The City also holds a monthly public meeting with its Transportation Committee, which is made up of three City Council members and one Citizen Advisory member. This meeting focuses on transportation related issues and often involves

resident feedback on safety within the community. The City works with the Hillsboro School District to develop safe routes to school action plans and events. Additionally, the City of Hillsboro is developing a Transportation Safety Action Plan that will be designed to reduce fatal and serious injury crashes by identifying targeted areas for crash reduction, safety programs, and prioritized projects.

Lake Oswego – Safety awareness is an active program implemented by the Lake Oswego Police Department. At least four events are advertised to the public and staged throughout the year. Police set up events at school zones to enforce the 20 mph zones and at marked crosswalks to encourage compliance with Oregon laws indicating traffic must stop for pedestrians in a crosswalk. Each campaign is intended to emphasize the laws through data collection and additional enforcement. The results have shown that the local population has responded well and compliance with the laws is increasing. The Pedestrian Safety Enforcement is a grant through the Bicycle Transportation Alliance to bring awareness to drivers regarding pedestrians; School Zone Enforcement is made possible with a traffic safety grant from Clackamas Safe Communities program.

Oregon City – Oregon City's Transportation System Plan, adopted in 2012, identifies the need to manage the performance of congested locations with strategies that reduce traffic conflicts, increases safety, and encourages more efficient usage of the transportation system. The City of Oregon City has a Transportation Advisory Committee, which advises the City Commission, Planning Commission and Urban Renewal Agency on transportation-related matters and guides preparation of transportation plans and programs. Currently, the Transportation Advisory Committee is working with city staff on the Drive Safe Oregon City Campaign, a transportation safety program designed to inspire communication among residents about traffic safety and awareness.

Portland – In 2015, the Portland City Council adopted by ordinance a goal of Vision Zero. As a Vision Zero city, Portland is committed to eliminating serious injuries and deaths from roadways by 2025. Vision Zero is a safety philosophy that rejects the notion that traffic crashes are simply "accidents" but instead are preventable incidents that can be systematically addressed. City Council also created a Vision Zero Task Force to create a Vision Zero Action Plan to reduce traffic fatalities and serious injuries in 10 years. The action plan will call out specific 2-year and 5-year actions in four focus areas: speeding, impairment, disobeying traffic laws and road design. As part of Vision Zero, Portland is taking steps to slow speeds through road design, lowering speed limits and automated enforcement. Portland is piloting fixed speed cameras on four high crash corridors. Portland continues to make capital improvements on its High Crash Network, including enhanced pedestrian crossings and better transit access. Portland regularly conducts crosswalk education and enforcement actions, and its Safe Routes to School program works with K-12 schools across the city. The City continues to develop and enhance neighborhood greenways to provide people walking and biking with a low-stress active transportation network as an alternative to busier streets. A Vision Zero Task Force meets quarterly and annually reviews progress toward the Vision Zero goal and actions.

Tigard – The City of Tigard inputs the state crash data into GIS, and analyzes the data to identify locations that have one or more of the following: a) a high frequency of crashes; b) a high rate of crashes per entering vehicle; c) a high frequency of severe crashes; d) a high rate of severe crashes per entering vehicle; e) high rates of crashes involving pedestrians or bicyclists. The City then performs a more detailed analysis on the crash data and site conditions at these locations to identify if there are any engineering/infrastructure improvements that would reduce these crash rates. This information is considered in selecting upcoming street projects and the data is shared with the City's police department to keep informed of each other's issues.

Troutdale - The City adopted an updated Transportation Plan in 2014. Some of the goals and policies concerning safety include: Goal 1. Transportation facilities shall be designed and constructed in a manner which enhances the livability of Troutdale. Policy A. Minimize the "barrier" effect of large arterial streets (for example 257th Avenue). Action: The City shall develop and maintain pedestrian crossing spacing, traffic signal spacing and landscape standards for large arterial streets in Troutdale, in coordination with Multnomah County and Metro. Policy B. Make streets as "unobtrusive" to the community as possible. Action: The City shall maintain design standards for local streets which address landscaping, cross section width, and provision of alternative modes for each functional classification. Policy C. Build neighborhood streets to minimize speeding. Action: The City shall allow for neighborhood traffic management in new development as well as existing neighborhoods for City streets. Measures to be developed may include narrower streets, humps, traffic circles, curb/sidewalk bulbs, curving streets, diverters and/or other measures. Policy D. Encourage pedestrian and bicycle accessibility by providing safe, secure and desirable walkway routes, with a preferred spacing of no more than 330 feet, between elements of the pedestrian network. Action: The City shall develop and maintain a "pedestrian grid" in Troutdale, outlining pedestrian routes. Sidewalk standards shall be developed to define various widths, as necessary, for City street types. In 2015, in partnership with Multnomah County three safe routes to school crosswalk enhancements projects were completed. Two of the crossings included solar powered rapid flashing beacons. The City incorporates a seven member Public Safety Advisory Committee to advise the City Council on all matters concerning public safety.

Clackamas County –Clackamas County has had an adopted Transportation Safety Action Plan (TSAP) since late 2012. This plan was incorporated into the update of the Transportation System Plan and is being used as a foundation for other County planning documents. Clackamas County is the only county in Oregon with an adopted TSAP. With the priority on safety, the County has restructured the department around the goal of safety by creating a Transportation Safety Program within our Transportation Division of the Department of Transportation and Development. The approach has aligned safety-related functions and the development of performance measures to track progress towards Zero fatalities as part of the Drive-to-Zero (DTZ) campaign. The DTZ effort calls for a 50% reduction in Fatal and Serious Injury Crashes by 2022 with an ultimate goal of zero. The program uses a 5E approach, Education, Emergency Medical Service, Engineering and Evaluation and is also supported through efforts of the County's Traffic Safety Commission. An update of the TSAP will begin in late 2016. **Multnomah County -** Multnomah County emphasizes safety as among its top criterion in guiding policy, and is a goal for the County's transportation plans and programs. The County is in the process of updating its Transportation System Plan (TSP) in 2016, which includes safety policies and a range of solutions that address safety issues for all modes of transportation. Multnomah County utilizes Safety Priority Index System (SPIS) data and partners with ODOT on the Highway Improvement Safety Program (HSIP) and the All Roads Transportation Safety (ARTS) Program to identify and address safety concerns. Safety is also a criterion used in the County's Capital Improvement Plan and Program (CIPP) to prioritize transportation capital projects. The County also partners with East Multnomah County cities, schools, neighborhood associations and community organizations in the Safe Routes to School (SRTS) program that includes a focus on safety to support SRTS activities that encourage students to bike and walk to school.

Washington County – Washington County addresses safety issues for all modes of transportation by regularly monitoring its transportation facilities, improving its transportation plans, participating in the activities of a variety of local and regional boards and agencies, and maintaining a robust website. The website promotes topical safety issues such as vegetation removal; construction; back to school; winter weather; new laws; and share the road. Washington County maintains and annually reviews a Safety Priority Index System (SPIS) list. Washington County also participated in ODOT's OASIS (Oregon Adjustable Safety Index System) program which is an all roads SPIS list. Washington County has an active Traffic Safety Campaign Committee whose goal is to facilitate coordination with other agencies to maximize the exposure of safety messages to the public. The County also has multiple staff positions directly working on public safety. (A more detailed listing can be found in Appendix A).

SMART-South Metro Area Regional Transit (SMART) is committed to providing safe, secure, clean, reliable, and efficient public transportation services. In the interest of safety and security, SMART is currently updating its System Safety Program & Plan. This Plan documents policies, functions and responsibilities necessary to achieve a high degree of system and user safety and applies to all areas of the SMART transit system including operations, maintenance and outreach programs. This Plan serves as the blueprint for SMART's efforts in strengthening its overall safety management and its goal of continuous improvement in safety performance.

TriMet – Safety is the focus for all of TriMet's operational, planning and strategic decisions. Rather than thinking of it as a single priority—we are renewing our efforts to create a culture where safety is a core value. A safety management system is being implemented to facilitate proactive identification and control of safety risks to provide for safer transit operations for the community it serves. Among the strategies implemented is safety education. TriMet has a Safety Education Advisory Committee composed of community representatives who have a shared interest and stake in promoting safe interactions between bicyclists, pedestrians, drivers and transit users. Members of this group work together on common education efforts and advise TriMet. In addition, our outreach staff works directly with schools to educate faculty, parents and students on how to behave safely around buses, MAX light rail and WES commuter rail. Clean air and clean water do not stop at city limits or county lines. Neither does the need for jobs, a thriving economy and sustainable transportation and living choices for people and businesses in the region. Voters have asked Metro to help with the challenges and opportunities that affect the 25 cities and three counties in the Portland metropolitan area.

A regional approach simply makes sense when it comes to providing services, operating venues and making decisions about how the region grows. Metro works with communities to support a resilient economy, keep nature close by and respond to a changing climate. Together we're making a great place, now and for generations to come.

Metro Council President

Tom Hughes

Metro Council

Shirley Craddick, District 1 Carlotta Collette, District 2 Craig Dirksen, District 3 Kathryn Harrington, District 4 Sam Chase, District 5 Bob Stacey, District 6

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2018 Regional Transportation Plan update

TRANSPORTATION SAFETY

Performance Targets & Measures - DRAFT

January 2017



INTRODUCTION

This report outlines the recommended 2018 Regional Transportation Plan (RTP) safety targets and performance measures developed by the Regional Transportation Safety Work Group.

Safety Performance Target

By 2035 eliminate transportation related fatalities and serious injuries for all users of the region's transportation system, with a 16% reduction by 2020 (as compared to the 2015 five year rolling average), and a 50% reduction by 2025.

Safety System Evaluation Measures

- 1. Safety Infrastructure Investments Number, cost and percent of safety projects in the RTP investment packages region-wide and in areas with historically marginalized communities.¹
- Exposure to Crash Risk Approximates the risk of exposure to crashes by identifying whether the package of future transportation investments increases or decreases the sum of all non-freeway vehicle miles traveled (VMT) in Transportation Area Zones (TAZ) for RTP investment packages region-wide and in areas with historically marginalized communities.

Safety Monitoring Measures and Targets

For monitoring purposes, identifies annual targets, based on a five year rolling average of the number of people killed and seriously injured in traffic crashes in the region, by mode, per 100 million vehicle miles traveled, and per 100 thousand people. These safety monitoring measures and targets fulfill the requirements of the FAST-ACT and FHWA for MPO safety performance targets.

¹ Historically Marginalized Communities are identified as areas where there are high concentrations of people of color, people with low-incomes, people with limited English proficiency, older adults, and youth relative to the region.

POLICY FRAMEWORK FOR SETTING PERFORMANCE TARGETS AND MEASURES

Performance measures are indicators that enable decision-makers and other stakeholders to monitor changes in system condition and performance against established visions, goals, objectives and policies. The policy framework guiding the update of regional transportation safety performance measures and targets is captured in Metro's Regional Transportation Safety Plan Policy Framework Report (July 2016). It includes an overview of the policies that currently exist at the federal, state and regional level related to transportation safety, highlighting those that have changed since the region's first Regional Transportation Safety Plan was completed in March 2012. In particular, the report highlights policies that reflect:

- Continued emphasis on improving transportation safety
- Growing use of the Towards Zero Deaths and Vision Zero frameworks and targets
- Use of data, performance measurement, and evaluation
- Recognition of vulnerable users
- Integration of equity and public health perspectives

Performance measures serve as the dynamic link between RTP goals and plan implementation by formalizing the process of target-setting, evaluation and monitoring to ensure the RTP advances toward achievement of the region's transportation, land use, economic, and environmental goals. The RTP refers to the process of plan development, evaluation and monitoring over time as the performance measurement system, as shown in Figure 1.





Metro's Performance Measures Scoping Report (April 2016) provides the background and context for reviewing and refining adopted regional transportation performance measures and targets for the 2018 RTP.² The report describes the three layers of measurement in the 2014 RTP. These are listed in Table 1 table below with the corresponding 2014 RTP safety measures.

Measure/Target	2014 RTP Measure/Target	Recommended 2018 RTP Measure/Target
RTP Performance Targets set time bound, quantifiable goals for achieving the region's desired policy outcomes for investment in the region's transportation system. These measures use a combination of modeled and observed data.	"By 2040, reduce the number of fatal and severe injury crashes for pedestrians, bicyclists, and motor vehicle occupants each by 50% compared to 2007 2011 average."	By 2035 eliminate transportation related fatalities and serious injuries for all users of the region's transportation system, with a 16% reduction by 2020 (as compared to the 2015 five year rolling average), and a 50% reduction by 2025.
RTP System Evaluation Measures compare the base year conditions with alternative investment packages (projects) to document how well each package of transportation investments performs on an array of measures that are linked to RTP goals, and in most cases, overlap with the RTP performance targets.	The region does not currently forecast the regional safety target, though this is being explored.	 Number, cost and percent of safety projects in the RTP investment packages region-wide and in areas with historically marginalized communities. Exposure to crash risk through the sum of all non-freeway vehicle miles traveled (VMT) in Transportation Area Zones (TAZ) for RTP investment packages region-wide, and in historically marginalized communities.
RTP Monitoring Measures support the region's federally- required Congestion Management Process reporting between RTP update cycles. State DOTs and MPOs are now required to set performance targets for the Federal safety performance measures identified in MAP-21.	"Number of fatalities, serious injuries and crashes per vehicle mile traveled for all modes of travel region- wide." The region does not currently set targets for monitoring measures, but will do so to comply with federal regulations.	Annual targets, based on a five year rolling average of the number of people killed and seriously injured in traffic crashes in the region, by mode, per 100 million vehicle miles traveled, and per 100 thousand people.

Table 1: Current & Proposed Targets and Performance Measures

² See the 2018 RTP Performance Measures page: <u>http://www.oregonmetro.gov/public-projects/2018-regional-transportation-plan/performance</u> and the meeting packet for April 25, 2016

PERFORMANCE TARGET

RTP Performance Targets set time bound, quantifiable goals for achieving the region's desired policy outcomes for investment in the region's transportation system.

Metro's Regional Transportation Safety Plan Policy Framework Report (July 2016) demonstrates existing policy direction for the region to develop a target of eliminating transportation related fatalities and serious injuries. Additionally, several current or soon to be adopted plans have "zero deaths" visions and/or targets, including the Oregon Transportation Safety Action Plan, Portland Vision Zero Action Plan, Clackamas County Transportation Safety Action Plan, Washington County Transportation Safety Action Plan, and the Hillsboro Transportation Safety Action Plan. In 2016, the Federal Highway Administration adopted a national target of zero traffic fatalities.

The Safety Work Group recommends a target of zero deaths and fatalities by 2035; the target includes a specified date, refers to "all users" of the transportation system, and includes interim targets. The interim targets correspond with the monitoring measures annual targets.

Recommended 2018 RTP Safety Performance Target

"By 2035 eliminate transportation related fatalities and serious injuries for all users of the region's transportation system, with a 16% reduction by 2020 (as compared to the 2015 five year rolling average), and a 50% reduction by 2025."

- This target would replace the current 2014 Safety Performance Target.
- A five year rolling average of ODOT crash data is used to track the target.
- Progress towards meeting the 2035 target (annual and interim targets) would be tracked through the annual rolling monitoring targets.
- The target year of 2035 would not change in subsequent RTP updates.

The two graphs on the next page show the linear trend line for fatalities and serious injuries in the region. The trend for fatalities is increasing because of the trend in pedestrian deaths. The graphs also shows two different ways to forecast future deaths and fatalities – one using a linear trend based on a zero deaths and serious injuries by 2035 and one an "S-curve" forecasted trend line, also based on zero deaths and fatalities by 2035, but anticipating a less immediate change as plans and policies take time to be implemented; ODOT is employing this method in the recently adopted state safety action plan. Metro recommends using the "S-curve" forecasting method.





SAFETY TARGETS AND PERFORMANCE MEASURES January 2017

SYSTEM EVALUATION MEASURES

RTP System Evaluation Measures compare the base year conditions of the transportation system with alternative investment packages of projects and programs to document how well each package of transportation investments performs on an array of measures that are linked to RTP Goals, and in most cases, overlap with the RTP Performance Targets.

The current RTP does not include system evaluation measures for safety. The RTP Transportation Equity Work Group recommended both safety system evaluation measures be included in the 2018 RTP.

Transportation Safety – Infrastructure Investments

This system evaluation measure identifies the number, cost and percent of safety projects in the RTP investment packages region-wide, and the number, cost and percent of safety projects in areas with historically marginalized communities to identify where and at what level of investment the package of future transportation projects addresses transportation safety.

This system evaluation measure requires providing a definition of a "safety project" in order to track safety investments.

For the purpose of the RTP and infrastructure investments system evaluation measure, **safety projects are defined as**: Infrastructure projects with the primary intent to address a safety issue, and allocate a majority of the project cost to a documented safety countermeasure(s) to address a specific documented risk, or improve safety for vulnerable users, including people walking and bicycling, older adults and youth.

Safety countermeasures are actions taken to improve transportation safety and therefore decrease the number of injuries and fatalities. Safety countermeasures may include geometric design, systemic safety, and intelligent transportation systems. Examples of proven safety countermeasures include, but are not limited to, FHWA's nine proven safety countermeasures: road diets, medians and pedestrian crossing islands, pedestrian hybrid beacons, roundabouts, access management, retroreflective backplates, safety edge, enhanced curve delineation, and rumble strips.³

Transportation Safety – Exposure to Crash Risk

This system evaluation measure approximates the risk of exposure to crashes by identifying whether the package of future transportation investments increases or decreases the sum of all non-freeway vehicle miles traveled (VMT) in Transportation Area Zones (TAZ) for RTP investment packages region-wide, and in historically marginalized communities

³ <u>http://safety.fhwa.dot.gov/provencountermeasures/</u>

MONITORING MEASURES

RTP Monitoring Measures support the region's federally-required Congestion Management Process reporting between RTP update cycles. (Metro has had limited resources and capacity to track System Monitoring Measures every two years as intended, and, observed data is not always readily available; crash data for example, is usually at least one year old. To aid better reporting, Metro will be moving toward a new online "Mobility Corridors" tool for monitoring.)

State DOTs and MPOs must now report on the federally required performance measures identified in MAP-21 and the FAST Act.⁴ Metro will report on these measures in each update of the RTP, and in the Metropolitan Service District report of performance measures that Metro is required to submit in accordance with ORS 197.301 to the Department of Land Conservation and Development (DLCD) every two years.

The measures identified in Table 3, below, are proposed to replace the 2014 RTP safety monitoring measure: "Number of fatalities, serious injuries and crashes per vehicle mile traveled for all modes of travel region-wide."

The measures in Table 3 include the five FHWA safety measures that Metro is required to report on and additional monitoring measures proposed by Metro and the Safety Work Group, to measure: "The five year rolling average of the number of people killed and seriously injured in traffic crashes in the region, by mode, per 100 million vehicle miles traveled, and per 100 thousand people."

	FHWA Performance Measures								
		Fatalit	y Rate		Serious Injury Rate		Non-Motorized		
Reporting Year (based on a 5-year rolling average)	Fatalities (People)	Per VMT (People/ 100 MVMT)	Per capita (People/ 100k pop)	Serious Injuries (People)	Per VMT (People/ 100 MVMT)	Per capita (People/ 100k pop)	Fatalities and Serious Injuries (People)		
2011 - 2015 (Base)	62	0.9	4.0	457	6.4	29.4	113		
2014 - 2018	58	0.8	3.6	425	5.8	26.5	105		
2015 - 2019	55	0.7	3.4	407	5.5	25.1	101		
2016 - 2020	52	0.7	3.2	384	5.1	23.4	95		
2017 - 2021	49	0.6	2.9	357	4.7	21.5	88		

Table 2: Annual Monitoring Targets for FHWA and RTP Transportation Safety Performance Measures

Note: Due to rounding, addition of numbers across modes may result in minor variation from totals.

⁴ The final safety rule can be accessed at: <u>http://safety.fhwa.dot.gov/hsip/rulemaking/</u> Significant federal rulemaking activities to implement the performance provisions first included in the Moving Ahead in the 21st Century Act (MAP-21) Act and subsequent provisions contained in the Fixing America's Surface Transportation (FAST) Act have been underway for nearly 4 years by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA).

		Motor Vehicle Only							
		Fatalit	ty Rate		Serious Ir	njury Rate			
Reporting Year (based on a 5-year rolling average)	Fatalities (People)	Per VMT (People/ 100 MVMT)	Per capita (People/ 100k pop)	Serious Injuries (People)	Per VMT (People/ 100 MVMT)	Per capita (People/ 100k pop)			
2011 - 2015 (Base)	38	0.5	2.4	368	5.2	23.7			
2014 - 2018	35	0.5	2.2	343	4.7	21.3			
2015 - 2019	34	0.5	2.1	328	4.4	20.2			
2016 - 2020	32	0.4	1.9	309	4.1	18.8			
2017 - 2021	30	0.4	1.8	287	3.8	17.3			

Note: Due to rounding, addition of numbers across modes may result in minor variation from totals.

	Pedestrians							
		Fatalit	y Rate		Serious Ir	njury Rate		
Reporting Year (based on a 5-year rolling average)	Fatalities (People)	Per VMT (People/ 100 MVMT)	Per capita (People/ 100k pop)	Serious Injuries (People)	Per VMT (People/ 100 MVMT)	Per capita (People/ 100k pop)		
2011 - 2015 (Base)	22	0.3	1.4	56	0.8	3.6		
2014 - 2018	20	0.3	1.3	52	0.7	3.2		
2015 - 2019	20	0.3	1.2	49	0.7	3.0		
2016 - 2020	18	0.2	1.1	47	0.6	2.8		
2017 - 2021	17	0.2	1.0	43	0.6	2.6		

Note: Due to rounding, addition of numbers across modes may result in minor variation from totals.

		Bicyclists							
		Fatalit	y Rate		Serious Ir	njury Rate			
Reporting Year (based on a 5-year rolling average)	Fatalities (People)	Per VMT (People/ 100 MVMT)	Per capita (People/ 100k pop)	Serious Injuries (People)	Per VMT (People/ 100 MVMT)	Per capita (People/ 100k pop)			
2011 - 2015 (Base)	2.2	0.03	0.14	33	0.5	2.1			
2014 - 2018	2.0	0.03	0.13	31	0.4	1.9			
2015 - 2019	2.0	0.03	0.12	30	0.4	1.8			
2016 - 2020	1.8	0.02	0.11	28	0.4	1.7			
2017 - 2021	1.7	0.02	0.10	26	0.3	1.6			

Note: Due to rounding, addition of numbers across modes may result in minor variation from totals.

The annual targets are calculated using the "S-curve" forecasting trend. The S-curve forecast method was developed assuming the five-year average number of crashes may be relatively flat in the near future; start to decline in a few years in recognition of different projects, programs and actions implemented in the region and/or automated vehicles; an flatten out again in the future as it becomes more difficult to address the remaining fatalities.





SAFETY TARGETS AND PERFORMANCE MEASURES January 2017







Clean air and clean water do not stop at city limits or county lines. Neither does the need for jobs, a thriving economy and sustainable transportation and living choices for people and businesses in the region. Voters have asked Metro to help with the challenges and opportunities that affect the 25 cities and three counties in the Portland metropolitan area.

A regional approach simply makes sense when it comes to providing services, operating venues and making decisions about how the region grows. Metro works with communities to support a resilient economy, keep nature close by and respond to a changing climate. Together we're making a great place, now and for generations to come.

Metro Council President

Tom Hughes

Metro Council

Shirley Craddick, District 1 Carlotta Collette, District 2 Craig Dirksen, District 3 Kathryn Harrington, District 4 Sam Chase, District 5 Bob Stacey, District 6

Auditor

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www.oregonmetro.gov/rtp



2018 Regional Transportation Plan update

TRANSPORTATION SAFETY High Injury Corridors - DRAFT

January 2017



REGIONAL HIGH INJURY CORRIDORS

Regional High Injury Corridors (HICs) are stretches of roadways in the Portland metropolitan area where the highest concentrations of severe crashes involving a motor vehicle occur on the regional transportation network. ¹ Metro developed a replicable and quantitative assessment of the crash performance on roadways on the regional transportation network to support planning and prioritization of corridor safety efforts.

A majority (60%) of severe crashes in the region occur on 23% of the roadways on the regional transportation network, and 6% of all streets in the region.

Corridors	Miles of Streets	% of all severe crashes (2010-2014)	% regional transportation network (1,739 miles)	% of all streets (6,565 miles)
Regional HIC	398	60%	23%	6%
(auto, bike, pedestrian)				
Auto HIC (auto only)	282	50%	16%	4%
Bike HIC (bike/auto)	177	50%	10%	3%
Ped HIC (pedestrian/auto)	133	50%	8%	2%

Purpose

Metro developed the HICs to help meet the safety goals and targets of the Regional Transportation Plan (RTP).² As part of the 2018 update of the RTP, Metro is updating the 2012 Regional Transportation Safety Plan and the 2012 Metro State of Safety Report. The 2014 RTP identified the need to identify HICs in the update of the transportation safety plan to provide another tool to support planning and prioritization of safety efforts.

The 2012 Metro State of Safety Report identified several factors contributing to high severe crash rates in the region: arterial roadways, multi-lane roadways, lack of lighting, and behavior (e.g. drunk driving). At the time, however, Metro lacked the ability to quantify risk by specific roadways.

¹ The regional transportation network is comprised of the arterial and throughway, freight, transit, bicycle and pedestrian networks shown in the network maps in Chapter 2 of the 2014 Regional Transportation Plan, http://www.oregonmetro.gov/regional-transportation-plan

² Metro is currently updating the RTP, including the safety performance measures and targets. A new safety target will be proposed in the 2018 RTP: "By 2035 eliminate transportation related fatalities and serious injuries for all users of the region's transportation system, with a 16% reduction by 2020 (as compared to the 2015 five year rolling average), and a 50% reduction by 2025."

A recommendation of the 2014 Regional Transportation Safety Plan was to develop performance measurements to identify high-crash arterials in the region. Metro began to research methods for identifying regional high injury corridors in 2015 to fulfill this recommendation and incorporate the findings into the update Regional Transportation Safety Plan and the 2018 RTP.

Project evaluation criteria and evaluation processes for the RTP have not yet been decided on, but safety will most likely be included and high injury corridors may also be used in the RTP evaluation. Projects submitted to the RTP will identify if they are on a high injury corridor and whether they are a safety project.³ This information will be used to help assess the level of investment in the plan specifically directed towards safety and specifically addressing safety issued on a high injury corridor. This information may also possibly be used in the RTP project evaluation.

High Injury Corridors

The following maps show the combined high injury corridors and for each mode. The thirty-five corridors with the highest severe crashes per miles for each mode and combined are listed after each map. A full list of corridors for each mode and combined is provided at the end of the report.

³ In the RTP, regional safety projects are defined as infrastructure projects with the primary intent to address a safety issue, and allocate a majority of the project cost to a documented safety countermeasure(s) to address a specific documented risk, or improve safety for vulnerable users, including people walking and bicycling, older adults and youth. Example safety countermeasures include, but are not limited to, FHWA's nine proven safety countermeasures: road diets, medians and pedestrian crossing islands, pedestrian hybrid beacons, roundabouts, access management, retroreflective backplates, safety edge, enhanced curve delineation, and rumble strips.

Oregon Metro High Injury Corridors

60% of Severe Crashes Occur on 6% of All Streets

Central City



Source data: Metro Regional Transportation Plan (RTP) Network, RTP Bikeways, RTP Pedways, ODOT crash data (2010-2014)

	Top 35 Combined (Ped/Bike/Auto) High Injury Corridors –Severe Crashes per Mile									
Corridor	From	То	Jurisdiction	# of Severe Crashes	Length	Severe Crashes per Mile	lı Ped	n Top 35 HIC Bike	? Auto	
I-5 Southbound	I-405 at Fremont Bridge	Burnside Bridge	Portland	13	1.5	8.61			х	
Adair	Baseline	Pacific Highway	Cornelius & Forest Grove	13	1.5	8.48		х	х	
Division	7 th	190 th	Gresham & Portland	80	9.6	8.29	Х	х	х	
I-5 Northbound	Marquam Bridge	I-405 at Fremont Bridge	Portland	18	2.5	7.13			х	
181 st	Sandy	182 nd (Merging)	Gresham	14	2.1	6.62	Х	х	х	
Tualatin Valley Highway	Hocken	10 th	Washington Co, Beaverton & Hillsboro	55	8.3	6.60		х	х	
Broadway	SW 4 th	Naito	Portland	13	2.0	6.36	Х	х	х	
Ross Island Bridge	Grand	I-5	Portland	8	1.4	5.81			х	
82 nd	Killingsworth	E. Berkeley	Clackamas Co, Gladstone & Portland	75	13.4	5.60	Х	х		
Foster	136 th	50 th & Powell	Portland	26	4.7	5.57	х	х		
102 nd	Sandy	Cherry Blossom (Merging)	Maywood Park & Portland	15	2.9	5.19	Х		х	
Powell	Burnside	McLoughlin	Portland	65	12.9	5.04	х	х		
I-84 Westbound	82 nd	Martin Luther King Jr.	Gresham & Portland	24	4.8	5.04			х	
Rosa Parks	42 nd	Killingsworth	Portland	8	1.6	4.98			х	
96 th	99 th & Washington	Division	Portland	5	1.0	4.96	Х		х	
I-5 Southbound	Hwy 217	Tualatin River	Tigard	5	1.0	4.85			х	
185 th	Springville	Farmington	Washington Co & Hillsboro	29	6.0	4.82		х	х	
SE/NE 162 nd	Powell	Sandy	Gresham & Portland	18	3.8	4.76	х			
Martin Luther King Jr.	Columbia Blvd.	Division	Multnomah Co, Beaverton & Portland	27	5.8	4.66	Х	х		
Sunset Highway (Eastbound)	Hwy 217	Tunnel	Portland	9	1.9	4.63			х	
Grand Avenue	Broadway	Powell	Portland	16	3.5	4.63	Х	х		
Highway 217 Southbound	Beaverton Hillsdale	Sunset Highway	Beaverton	8	1.8	4.57			х	
Washington Street	Stark	Thorburn	Portland	9	2.0	4.56			х	
Tualatin Valley Highway	341 st	17 th	Washington Co, Cornelius & Hillsboro	5	1.1	4.54			х	
Halsey	I-84 at NE 67th	Sandy	Portland	7	1.6	4.48			х	
McLoughlin	Jefferson	Oregon City Bridge	Clack Co, Gladstone, Milwaukie, Ore City	30	6.8	4.41	х			
Highway 8 / Canyon	Hocken	Sunset Highway	Portland	17	3.9	4.41				
I-205 Southbound	Washington State Line	Marine Dr	Beaverton	7	1.6	4.36			х	
Wiedler	24 th	Broadway (Merging)	Portland	6	1.4	4.31		х		
Highway 217 – Northbound	Pacific Highway	Scholls Ferry	Beaverton & Tigard	7	1.6	4.29			х	
I - 84 Eastbound	I-5	I-205	Portland	21	4.9	4.28			х	
Highway 8 / Baseline	TV Highway (near SW 17 th)	TV Highway (near SE 10 th)	Hillsboro	7	1.7	4.22	х			
Beaverton Hillsdale	Capitol Highway	Lombard	Washington Co, Beaverton & Portland	22	5.3	4.13			х	
112 th	Holgate	Market	Beaverton	6	1.5	3.98				
Highway 217 - Northbound	Beaverton Hillsdale	Sunset Highway	Clack Co, Wash Co, Lake Oswego, Tigard & Tualatin	7	1.8	3.96			х	

Oregon Metro High Injury Corridors

50% of Severe Auto Crashes Occur on 4% of All Streets



Top 35 Auto High Injury Corridors – Severe Crashes per Mile									
Corridor	From	То	Jurisdiction	# of Crashes	Length	Severe Crashes per Mile			
I-5 Southbound	I-405 at Fremont Bridge	Burnside Bridge	Portland	11	1.5	7.28			
Adair	Baseline	Pacific	Cornelius & Forest Grove	11	1.5	7.18			
I-5 Northbound	Marquam Bridge	I-405	Portland	16	2.5	6.34			
Division	7 th	190 th	Gresham & Portland	54	9.6	5.60			
181 st	Sandy	182 nd	Gresham	11	2.1	5.20			
Ross Island Bridge	Grand	I-5	Portland	7	1.4	5.08			
Rosa Parks	Cully	Killingsworth	Portland	8	1.6	4.98			
I-5 - Southbound	Hwy 217	Tualatin River	Tigard	5	1.0	4.85			
Tualatin Valley Highway	Hocken	10 th	Washington County, Beaverton, & Hillsboro	40	8.3	4.80			
Sunset Highway (Eastbound)	Hwy 217	Tunnel	Multnomah County, Beaverton, & Portland	9	1.9	4.63			
Hwy 217 Southbound	Sunset Highway	Beaverton Hillsdale	Beaverton	8	1.8	4.57			
I-84 Westbound	Martin Luther King Jr.	82 nd	Portland	21	4.8	4.41			
I-205 Southbound	Washington State Line	Marine Dr	Portland	7	1.6	4.36			
Hwy 217 Northbound	Scholls Ferry	Pacific Highway	Beaverton & Tigard	7	1.6	4.29			
185 th	Springville	Farmington	Washington County & Hillsboro	25	6.0	4.16			
I-84 Eastbound	I-5	I-205	Portland	20	4.9	4.07			
Washington Street	Stark St.	Thorburn	Portland	8	2.0	4.05			
96 th	SE Washington St.	SE Division St.	Portland	4	1.0	3.97			
Hwy 217 Northbound	Beaverton Hillsdale	Sunset Highway	Beaverton	7	1.8	3.96			
I-5 Northbound	Kruse	Nyberg	Clack. Co, Wash. Co, L. Oswego, Tigard & Tualatin	11	2.8	3.96			
Broadway	SW 4 th	Naito	Portland	8	2.0	3.92			
Halsey	I-84 at NE 67 th	Sandy	Portland	6	1.6	3.84			
47 th	Glisan	Wistaria	Portland	4	1.0	3.83			
102 nd	Sandy	Cherry Blossom	Maywood Park & Portland	11	2.9	3.81			
Tualatin Sherwood	Pacific Highway	Nyberg	Washington County & Sherwood & Tualatin	17	4.5	3.75			
I-205 Southbound	Washington State Line	Division	Portland	4	1.1	3.70			
Brookwood	Shute	Sunset Highway	Hillsboro	4	1.1	3.68			
Tualatin Valley Highway	341 st	17 th	Washington County, Cornelius, & Hillsboro	4	1.1	3.63			
I-5 Southbound	Nyberg	Kruse	Tigard & Tualatin	5	1.4	3.62			
I-205 Northbound	Airport Way	Washington State Line	Portland	6	1.7	3.59			
I-5 Southbound	Wilsonville Road	Miley	Clackamas County & Wilsonville	4	1.1	3.58			
SE Bob Schumacher Road	Idleman & Otty	Stevens	Clackamas County & Happy Valley	4	1.1	3.49			
I-5 Northbound	Bertha Blvd	Marquam Bridge	Portland	11	3.2	3.45			
Allen	Davis	92 nd	Beaverton	10	2.9	3.41			
Beaverton Hillsdale	Capitol Highway	Lombard	Washington County, Beaverton, & Portland	18	5.3	3.38			

Oregon Metro High Injury Corridors

50% of Pedestrian Crashes Occur on 2% of All Streets

Central City



0

Source data: Metro Regional Transportation Plan (RTP) Network, RTP Bikeways, RTP Pedways, ODOT crash data (2010-2014)
34 Pedestrian High Injury Corridors –Severe Crashes per Mile

Corridor	From	То	Jurisdiction	# of Severe Crashes	Length (MI)	Severe Crashes per Mile	# of Minor Crashes
Division	7 th	190 th	Gresham & Portland	22	9.6	2.28	61
82 nd	Killingsworth	Causey	Clackamas Co., Gladstone & Portland	27	13.4	2.02	93
Broadway	SW 4 th	Naito	Portland	4	2.0	1.96	24
McLoughlin	Jefferson	Oregon City Bridge	Clackamas Co., Gladstone, Milwaukie, Oregon City	13	6.8	1.91	32
Foster	136 th	50 th Ave & Powell Blvd.	Portland	8	4.7	1.71	18
East Burnside	75 th	124 th	Portland	4	2.6	1.55	7
SW 4 th	Sheridan	Burnside	Portland	2	1.3	1.53	20
SE 28 th	Madison	Knott	Portland	3	2.0	1.49	5
SE/NE 102 nd	Sandy	Cherry Blossom	Maywood Park & Portland	4	2.9	1.38	19
Burnside	At SW Barnes	NE 68 th	Portland	14	10.2	1.37	56
Alberta	33 rd	Martin Luther King Jr.	Portland	2	1.5	1.34	13
SE/NE 162 nd	Powell	Sandy	Gresham & Portland	5	3.8	1.32	11
Highway 212	I-205	East of HWY 224 Interchange	Clackamas County & Happy Valley	3	2.4	1.25	9
Baseline	TV Highway (near SW 17 th)	TV Highway (near SE 10 th)	Hillsboro	2	1.7	1.21	12
Powell	Burnside	McLoughlin	Gresham & Portland	15	12.9	1.16	75
Grand	Broadway	Powell	Portland	4	3.5	1.16	12
SE 182 nd	Highland & Powell	181 st	Gresham	2	1.7	1.15	7
Everett	Westover	Naito	Portland	2	1.8	1.10	13
SW/NW 6 th Ave.	Sheridan	Irving	Portland	2	1.8	1.10	10
Martin Luther King Jr.	Columbia	Division	Portland	6	5.8	1.03	31
SE 96 th	Washington Street	Division	Portland	1	1.0	0.99	5
SE 181 st	Sandy	182 nd	Gresham	2	2.1	0.95	16
Sandy	7 th	165 th	Maywood Park & Portland	9	9.6	0.94	41
Multnomah Street	Steel Bridge	21 st	Portland	2	2.2	0.91	14
Kane	257 th & Stark	Orient & Palmquist	Gresham & Troutdale	2	2.2	0.89	15
SW/NW 11 th	Lovejoy	Market	Portland	1	1.1	0.89	7
Cesar E. Chavez	Wistaria	Woodstock	Portland	4	4.7	0.85	27
SW/ NW 10 th Ave.	Northrup	Market	Portland	1	1.2	0.80	8
Broadway	Broadway Bridge	Sandy	Portland	2	2.5	0.80	26
Lovejoy	Cornell	Broadway	Portland	1	1.3	0.77	8
NE/SE 122 nd	Skidmore	Foster	Portland	4	5.5	0.73	30
1 st	Glencoe	Wood	Hillsboro	1	1.5	0.68	12
Hawthorne	51 st	Martin Luther King Jr.	Portland	2	3.1	0.66	18
SW/NW 5 th	Irving	Sheridan	Portland	1	1.8	0.55	14

Oregon Metro High Injury Corridors

50% of Bike Crashes Occur on 3% of All Streets



	То	p 35 Bike High Injury Coi	ridors –Severe Crashes per Mile				
Corridor	From	То	Jurisdiction	# of Severe Crashes	Length (MI)	Severe Crashes per Mile	# of Minor Crashes
SE 50 th	Powell	Division	Portland	2	1.1	1.79	5
NE Wielder	24 th	Broadway	Portland	2	1.4	1.44	19
Marine Drive	122 nd	Portland Airport	Portland	3	2.7	1.12	3
NW Everett	Westover	Naito	Portland	2	1.8	1.10	13
Skidmore	Interstate	Martin Luther King Jr.	Portland	1	1.0	0.99	11
SW/NE 257 th	I-84	Kane & Stark	Troutdale	2	2.1	0.97	6
SE 28 th	Woodstock	Gladstone	Portland	1	1.1	0.88	3
SE Ankeny	28 th	Martin Luther King Jr.	Portland	1	1.2	0.84	14
10 th	Cornelius Schefflin	Oleander	Cornelius	1	1.2	0.81	3
Powell	Burnside	McLoughlin	Gresham & Portland	9	12.9	0.70	45
Martin Luther King Jr.	Columbia	Division	Portland	4	5.8	0.69	38
SW/NW 18 th	Thurman	Collins & Jefferson	Portland	1	1.5	0.69	7
Ainsworth	Vancouver	27 th	Portland	1	1.5	0.67	5
Gladstone	42 nd	52 nd	Portland	1	1.5	0.67	7
Hawthorne	51 st	Martin Luther King Jr.	Portland	2	3.1	0.66	46
Adair	Baseline	Pacific	Cornelius & Forest Grove	1	1.5	0.65	6
Foster	136 th	50 th & Powell	Portland	3	4.7	0.64	25
Oak	Baseline & T.V. Highway	10 th	Hillsboro	1	1.6	0.62	4
Tualatin Valley Highway	Hocken	10 th	Washington Co., Beaverton & Hillsboro	5	8.3	0.60	26
Grand	Broadway	Powell	Portland	2	3.5	0.58	34
Broadway	SW 4 th	Naito	Portland	1	2.0	0.49	37
Clinton	50 th	12 th	Portland	1	2.1	0.48	7
Williams	Jessup	Wheeler	Portland	2	4.2	0.48	25
Vancouver	Weilder	Martin Luther King Jr.	Portland	3	6.3	0.47	30
SE/NE 181 st	Sandy	182 nd	Gresham	1	2.1	0.47	19
Multnomah	Steel Bridge	21 st	Portland	1	2.2	0.45	16
Cesar E. Chavez	Wistaria	Woodstock	Portland	2	4.7	0.42	19
Division	7 th	190 th	Gresham & Portland	4	9.6	0.41	52
Belmont	69 th	Grand	Portland	2	4.8	0.41	15
Broadway	Broadway Bridge	Sandy	Portland	1	2.5	0.40	54
SE 11 th	Sandy	Clinton	Portland	1	2.6	0.39	19
Multnomah Blvd.	Garden Home	I-5	Portland	1	2.7	0.37	10
185 th	Springville	Farmington	Washington Co. & Hillsboro	2	6.0	0.33	21
Barbur Drive	65 th	Sheridan	Portland	2	6.3	0.32	26
NE/SE 82 nd	Killingsworth	Berkeley St.	Clackamas Co., Gladstone & Portland	4	13.4	0.30	61

Methodology

Metro reviewed methods used by San Francisco, Los Angeles, Florida, Toledo, Hillsborough County MPO, Kentucky, San Diego, Mid-Ohio Regional Planning Commission, Portland and ODOT. Metro had several goals for the methodology:

- that it be replicable so that it could be used over time to track changes;
- that it be quantifiable so that assessments could be made objectively;
- that it focus on severe crashes and not fender benders;
- that it focus on the regional transportation network;
- that it identify high injury corridors and not only hot spots;
- that it capture a majority of the fatal and severe crashes in the region while also resulting in a subset of roadways in order to support planning and prioritization;
- that segments be normalized by segment length.

Metro primarily utilized the approaches developed by San Francisco and Portland and then developed a GIS based analysis that achieved the goals. ⁴

- 1. 2010-2014 crash data from the Oregon Department of Transportation was analyzed weighting fatal and severe crashes higher than other crashes.
- 2. Regional transportation networks for freight, arterial and throughway, transit, bicycle and pedestrians indentified in the 2014 RTP were combined into one regional transportation network.
- 3. Corridors were created based on the location of severe crashes, which were given an aggregate crash score based on the frequency and severity of crashes, normalized by the length of the segment.
- 4. The corridors identified as high injury corridors are the roadway segments with the highest crash score per mile on the regional transportation network. The analysis was done separately for auto only crashes, bicycle/auto crashes, and pedestrian/auto crashes to identify the corridors where at least 50% of all severe crashes for each of the modes are occurring.
- 5. The combined high injury corridors identify 60% of all severe crashes.

⁴ "Identifying High Injury Density Corridors and Areas for Targeted Safety Improvements to Reduce Severe and Fatal Pedestrian Injuries: A Methodology" 2013 http://www.sfhealthequity.org/images/Merged HIC Methods 2015.pdf

Portland High Crash Network: https://www.portlandoregon.gov/transportation/54892 and High Collision Intersections: <u>https://www.portlandoregon.gov/transportation/article/549274</u>

6. Intersections with the highest weighted crash scores are also identified. There are 42 intersections, or 1% of all 4,200 intersections in the region that have a weighted crash score greater than 128. There are 174 intersections in the top 5%, with weighted crash scores higher than 80.

The crashes/ corridors are not normalized by vehicle miles traveled (VMT) or by population. Normalizing by VMT and population is helpful to understand crash rates, and the Metro State of Safety Report provides crash rates at various levels of geography. The high injury corridors weighted crash scores are purposefully not normalized by VMT or population because the intent was to identify corridors and intersections with the highest concentrations of severe crashes, compared to the rest of the region, no matter the number of VMT or population. This intent is tied directly to achieving a zero deaths and severe injuries target.

Consistency with other high crash locations

In the Portland metropolitan area several jurisdictions have identified high crash networks or locations, including Portland, Washington County, Clackamas County, and Hillsboro. Additionally, ODOT and many jurisdictions use Safety Priority Index System (SPIS) and All Roads Transportation Safety (ARTS) program high crash locations. The regional high injury corridors do not contradict the locations identified by these agencies, but do provide:

- a regionally consistent methodology for the regional transportation network,
- focus on fatal and severe crashes,
- are specific to the urban region,
- and identify corridors as opposed to hot spots.⁵

Both ARTS and SPIS focus on specific locations, while the HICs identify corridors. HICs and ARTS focus on severe crashes. SPIS captures locations where there are also high frequency and rate of crashes, in addition to severe crashes; a roadway segment becomes a SPIS site if a location has three or more crashes or one or more fatal crashes over the three year period. The ARTS program identifies hotspot locations, defined as a location that has at least one fatal or serious injury crash within the last five years. SPIS sites and ARTS hotspots overlap with the high injury corridors and the regional high crash intersections identify high crash locations that are not necessarily on a high injury corridor.

High risk areas

Identifying areas that have high crash risk factors (posted speed, signalized intersections, unlit streets, number of liquor establishments, lack of medians, driveway density, etc.) but do not have high concentrations of severe crashes provides a useful for further prioritizing safety efforts. Metro is exploring availability of data, resources, possibility of developing high risk

⁵ The San Francisco analysis noted that "corridor-level and area-level analysis is necessary for efficient and effective injury prevention." <u>http://www.sfhealthequity.org/images/Merged_HIC_Methods_2015.pdf</u>

corridors, however most corridors with identified high risk factors will overlap with the high injury corridors. Part of the reason the 2012 RTSP recommended identifying high injury corridors, as opposed to high crash locations, is that a corridor approach highlights the roadways that have high risk factors. Metro reviewed the "Risk Based Pedestrian and Bicycle Project Corridors" identified in ODOT's Pedestrian and Bicycle Safety Implementation Plan (2014) and found that every risk based corridor in that plan overlapped with a regional HIC. ⁶

⁶ <u>https://www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/docs/pdf/13452</u> report final partsA+B.pdf

GIS ANALYSIS METHODOLOGY

Part 1:

- 1. Prepare streets and crashes for analysis
 - Streets:
 - Combine RTP networks and save a copy of those within the study area
 - Recalculate empty "STREETNAME" and "DIRECTION" fields as NULL
 - Create a dataset of only the freeways/highways dissolved by "STREETNAME" and "DIRECTION"
 - Create a dataset of streets other than freeways/highways dissolved by "STREETNAME", where the name is not NULL
 - Merge the freeways and non-freeways datasets
 - Break the streets at each intersection
 - Crashes:
 - Select crashes within the study area that occurred during or after a specified year
 - Save a copy of the selected crashes that intersect the RTP Network
- 2. Select and merge streets where crashes occurred
 - Create a layer of the crashes where the injury severity is Fatal/A or B/C for modes pedestrian or bicycle
 - Flag RTP cross-streets that intersect the crashes layer
 - Combine street segments with the same "STREETNAME", "DIRECTION", and crash flag (1/yes or 0/no)
 - Add adjacent street segments that are equal or less than ¼ mile
 - 3. Separate multi-part streets that are more than 75 feet apart
 - 4. Combine streets by name, direction, and buffer location to get crash corridors

Part 2:

1. Join crashes to corridors and calculate weighted sum by mode and normalized by street length

Corridors (percent severe injuries)	Miles	RTP Network (1,739 miles)	All Streets (6,565 miles)
Regional HIC (60%)	398	23%	6%
RHIC – auto (50%)	282	16%	4%
RHIC – bike (50%)	177	10%	3%
RHIC – ped. (50%)	133	8%	2%

>= 5280 feet

60% severe crashes

Combined (Ped/Bike/Auto) High Injury Corridors –Severe Crashes per Mile											
Corridor	From	То	Jurisdiction	# of Severe Crashes	Length	Severe Crashes per Mile	# Severe Ped	# Severe Bike	# Severe Auto		
I-5 Southbound	I-405 at Fremont Bridge	Burnside Bridge	Portland	13	1.5	8.61	2	0	11		
Adair	Baseline	Pacific Highway	Cornelius & Forest Grove	13	1.5	8.48	1	1	11		
Division	7 th	190 th	Gresham & Portland	80	9.6	8.29	22	4	54		
I-5 Northbound	Marquam Bridge	I-405 at Fremont Bridge	Portland	18	2.5	7.13	2	0	16		
181 st	Sandy	182 nd (Merging)	Gresham	14	2.1	6.62	2	1	11		
Tualatin Valley Highway	Hocken	10 th	Washington Co. & Beaverton & Hillsboro	55	8.3	6.60	10	5	40		
Broadway	SW 4 th	Naito	Portland	13	2.0	6.36	4	1	8		
Ross Island Bridge	Grand	I-5	Portland	8	1.4	5.81	1	0	7		
82 nd	Killingsworth	E. Berkeley	Clackamas Co. Gladstone, Portland	75	13.4	5.60	27	4	44		
Foster	136 th	50 th & Powell	Portland	26	4.7	5.57	8	3	15		
102 nd	Sandy	Cherry Blossom (Merging)	Maywood Park & Portland	15	2.9	5.19	4	0	11		
Powell	Burnside	McLoughlin	Gresham & Portland	65	12.9	5.04	15	9	41		
I-84 Westbound	82 nd	Martin Luther King Jr.	Portland	24	4.8	5.04	2	1	21		
Rosa Parks	42 nd	Killingsworth	Portland	8	1.6	4.98	0	0	8		
96 th	99 th & Washington	Division	Portland	5	1.0	4.96	1	0	4		
I-5 Southbound	Hwy 217	Tualatin River	Tigard	5	1.0	4.85	0	0	5		
185 th	Springville	Farmington	Washington County & Hillsboro	29	6.0	4.82	2	2	25		
SE/NE 162 nd	Powell	Sandy	Gresham & Portland	18	3.8	4.76	5	1	12		
Martin Luther King Jr.	Columbia Blvd.	Division	Portland	27	5.8	4.66	6	4	17		
Sunset Highway (Eastbound)	Hwy 217	Tunnel	Multnomah Co. Beaverton & Portland	9	1.9	4.63	0	0	9		
Grand Avenue	Broadway	Powell	Portland	16	3.5	4.63	4	2	10		
Highway 217	Beaverton Hillsdale	Sunset Highway	Beaverton	8	1.8	4.57	0	0	8		
Washington Street	Stark	Thorburn	Portland	9	2.0	4.56	1	0	8		
Tualatin Valley Highway	341 st	17 th	Washington Co. Cornelius & Hillsboro	5	1.1	4.54	1	0	4		
Halsey	I-84 at NE 67th	Sandy	Portland	7	1.6	4.48	1	0	6		
McLoughlin	Jefferson	Oregon City Bridge	Clackamas Co, Gladstone, Milwaukie & Oregon City	30	6.8	4.41	13	1	16		
Highway 8 / Canyon	Hocken	Sunset Highway	Beaverton	17	3.9	4.41	3	1	13		
I-205 Southbound	Washington State Line	Marine Dr	Portland	7	1.6	4.36	0	0	7		
Wiedler	24 th	Broadway (Merging)	Portland	6	1.4	4.31	0	2	4		
Highway 217 –	Pacific Highway	Scholls Ferry	Beaverton & Tigard	7	1.6	4.29	0	0	7		

Combined (Ped/Bike/Auto) High Injury Corridors –Severe Crashes per Mile											
Corridor	From	То	Jurisdiction	# of Severe Crashes	Length	Severe Crashes per Mile	# Severe Ped	# Severe Bike	# Severe Auto		
I - 84 Eastbound	1-5	I-205	Portland	21	4.9	4.28	1	0	20		
Highway 8 / Baseline	TV Highway (near SW 17 th)	TV Highway (near SE 10 th)	Hillsboro	7	1.7	4.22	2	0	5		
Beaverton Hillsdale	Capitol Highway	Lombard	Washington Co. Beaverton & Portland	22	5.3	4.13	4	0	18		
112 th	Holgate	Market	Portland	6	1.5	3.98	1	0	5		
Highway 217 -	Beaverton Hillsdale	Sunset Highway	Beaverton	7	1.8	3.96	0	0	7		
I-5 Northbound	Nyberg	Kruse	Clackamas Co. Washington Co, Lake Oswego Tigard & Tualatin	11	2.8	3.96	0	0	11		
Cedar Hills	Farmington	Cornell	Beaverton	13	3.3	3.92	2	0	11		
257 th	I-84	Stark	Troutdale	8	2.1	3.90	1	2	5		
Everett	Westover	Naito	Portland	7	1.8	3.85	2	2	3		
47 th	Glisan	Wistaria	Portland	4	1.0	3.83	0	0	4		
Sandy	7 th	165 th	Portland	36	9.6	3.76	9	0	27		
Allen	Davis	92nd	Beaverton	11	2.9	3.75	0	1	10		
Tualatin Sherwood	Pacific	Nyberg	Washington Co. Sherwood & Tualatin	17	4.5	3.75	0	0	17		
I-5 Southbound	Bertha Blvd	Powell	Portland	10	2.7	3.73	1	0	9		
Highway 212	122 nd / Highway 224	Clackamas Highway / 224	Clackamas County & Happy Valley	6	1.6	3.72	1	0	5		
I-205 Southbound	Division St	Washington	Portland	4	1.1	3.70	0	0	4		
Brookwood	Shute	Sunset Highway	Hillsboro	4	1.1	3.68	0	0	4		
I-205 Southbound	Killingsworth	Alderwood	Maywood Park & Portland	6	1.6	3.66	1	0	5		
Highway 8 / Pacific	Baseline	E St. (Forest Grove)	Cornelius & Forest Grove	9	2.5	3.63	1	0	8		
I-5 Southbound	Nyberg	Kruse	Tigard & Tualatin	5	1.4	3.62	0	0	5		
Cesar E. Chavez	Wistaria	Woodstock	Portland	17	4.7	3.61	4	2	11		
I-5 Southbound	Multnomah	Capitol Highway	Portland	6	1.7	3.59	1	0	5		
I-205 Northbound	Airport Way	Washington State Line	Portland	6	1.7	3.59	0	0	6		
I-5 Southbound	Wilsonville Rd	Miley	Clackamas County & Wilsonville	4	1.1	3.58	0	0	4		
Kane	257 th & Stark	Orient & Palmquist	Gresham & Troutdale	8	2.2	3.56	2	0	6		
Burnside	75 th	124 th	Portland	9	2.6	3.49	4	0	5		
122 nd	Skidmore	Foster	Portland	19	5.5	3.48	4	0	15		
11 th	Sandy	Clinton	Portland	9	2.6	3.48	1	1	7		
Barbur	65 th	Sheridan	Portland	22	6.3	3.47	3	2	17		

Combined (Ped/Bike/Auto) High Injury Corridors –Severe Crashes per Mile											
Corridor	From	То	Jurisdiction	# of Severe Crashes	Length	Severe Crashes per Mile	# Severe Ped	# Severe Bike	# Severe Auto		
Farmington	170 th	Beaverton Hillsdale	Washington County & Beaverton	18	5.2	3.46	4	1	13		
182 nd	Powell	181 st (Merging)	Gresham	6	1.7	3.45	2	0	4		
Burnside	Barnes	68 th	Portland	35	10.2	3.42	14	1	20		
1 st	Glencoe (Merging)	Wood	Hillsboro	5	1.5	3.38	1	0	4		
6 th	Sheridan	Irving (Union Station)	Portland	6	1.8	3.29	2	0	4		
Hawthorne	51 st	Martin Luther King Jr.	Portland	10	3.1	3.28	2	2	6		
Lovejoy	Cornell	Broadway	Portland	4	1.3	3.08	1	0	3		
Murray	Barrows	Walker	Beaverton & Tigard	18	5.9	3.08	1	2	15		
4 th	Sheridan	Burnside	Portland	4	1.3	3.06	2	0	2		
Highway 224	82nd	Rusk Rd.	Clackamas County & Milwaukie	4	1.3	3.01	1	0	3		
Highway 8 / Baseline	Tualatin Valley Highway	Pacific	Cornelius	7	2.3	3.01	1	0	6		
Highway 8 / Baseline	Jenkins	Brookwood & Main	Washington Co, Beaverton & Hillsboro	14	4.6	3.01	1	0	13		
Cornell	Main	Butler	Hillsboro	16	5.3	3.01	1	1	14		
Evergreen	Glencoe	Cornell	Washington Co & Hillsboro	21	7.0	3.00	1	1	19		
Millikan	Tualatin Valley Highway	Hocken	Beaverton	5	1.7	2.99	1	1	3		
Skidmore	Interstate	Martin Luther King, Jr.	Portland	3	1.0	2.98	0	1	2		
158 th	Cornell	Jenkins	Beaverton	5	1.7	2.92	1	1	3		
Highway 212	Mckinley	122nd Ave / Hwy 224	Clackamas Co & Happy Valley	7	2.4	2.91	3	0	4		
Johnson Creek	45 th	Highgate	Clackamas Co, Happy Valley, Milwaukie & Portland Airport	10	3.5	2.88	0	1	9		
Capitol Highway	Lesser (Merging)	Taylors Ferry	Portland	4	1.4	2.87	1	0	3		
Burnside	127 th	Powell	Gresham & Portland	26	9.1	2.85	3	2	21		
Jennings	River	Webster	Clackamas Co & Gladstone	6	2.1	2.84	1	0	5		
Pacific Highway	Main	Barbur	Washington Co, Portland, Sherwood, Tigard & Tualatin	31	10.9	2.84	5	2	24		
Hogan	242 nd (Merging)	Butler	Gresham & Troutdale	11	3.9	2.83	1	2	8		
Lombard	42 nd	Pier Park	Portland	23	8.5	2.70	8	1	14		
50 th	Powell	Division	Portland	3	1.1	2.69	1	2	0		
Gladstone	42 nd	52 nd	Portland	4	1.5	2.68	1	1	2		
Garden Home	Multnomah	92 nd Place	Washington Co, Beaverton & Portland	3	1.1	2.66	0	0	3		
Glisan	Cesar E Chavez	202 nd	Gresham & Portland	30	11.5	2.61	6	3	21		
Glisan	Steel Bridge	24 th	Portland	5	1.9	2.60	2	0	3		

Combined (Ped/Bike/Auto) High Injury Corridors –Severe Crashes per Mile											
Corridor	From	То	Jurisdiction	# of Severe Crashes	Length	Severe Crashes per Mile	# Severe Ped	# Severe Bike	# Severe Auto		
Lower Barnes Ferry	Pilkington	Upper Boones Ferry	Durham, Lake Oswego & Tualatin	3	1.2	2.51	0	0	3		
Stark	76 th	Historic Columbia River HWY	Multnomah Co, Gresham, Portland & Troutdale	30	12.0	2.50	7	2	21		
28 th	Madison	Knott	Portland	5	2.0	2.48	3	0	2		
Oak	Baseline & T.V. Highway	10 th	Hillsboro	4	1.6	2.47	1	1	2		
10 th	Cornelius Schefflin	Oleander	Cornelius	3	1.2	2.44	0	1	2		
10 th	Northrup	Market	Portland	3	1.2	2.40	1	0	2		
Broadway	Broadway Bridge	Sandy	Portland	6	2.5	2.39	2	1	3		
Holgate	136 th	McLoughlin Blvd	Portland	24	10.0	2.39	4	2	18		
Killingsworth	Greeley	Sandy	Portland	23	9.8	2.35	8	2	13		
Minter Bridge	Noland	Tualatin Valley Highway	Washington Co & Hillsboro	3	1.3	2.29	0	0	3		
Main	Brookwood	Oak	Hillsboro	8	3.5	2.27	0	0	8		
Multnomah	Garden Home	I-5	Portland	6	2.7	2.22	0	1	5		
Belmont	69 th	Grand	Portland	10	4.8	2.07	2	2	6		
185 th	Thurman	Jefferson & Columbia	Portland	3	1.5	2.06	1	1	1		
Alberta	33 rd	Martin Luther King, Jr.	Portland	3	1.5	2.01	2	0	1		
Molalla	Garden Meadow	7 th	Oregon City	4	2.0	1.97	0	0	4		
Multnomah	Steel Bridge	21 st	Portland	4	2.2	1.82	2	1	1		
223 rd	Halsey	Eastman (Merging)	Fairview & Gresham & Wood Village	3	1.7	1.81	0	0	3		
11 th	Lovejoy	Market	Portland	2	1.1	1.77	1	0	1		
5 th	Irving	Sheridan	Portland	3	1.8	1.64	1	0	2		
Williams	Jessup	Wheeler	Portland	6	4.2	1.44	0	2	4		
Sunnyside	82 nd	119 th	Clackamas Co & Happy Valley	3	2.1	1.40	0	0	3		
Division	Troutdale	Eastwood	Multnomah Co & Gresham	6	4.4	1.35	3	0	3		
Capitol Highway	Beaverton Hillsdale /	Barbur	Portland	3	2.3	1.31	1	0	2		
Eastman	223 rd & Fairview	Towle (South Of Powell)	Gresham	2	1.7	1.17	0	0	2		
26 th	Holgate	Division	Portland	1	1.0	1.00	0	0	1		
30 th	Division	Stark	Portland	1	1.0	1.00	0	0	1		
Jefferson	Vista	3 rd	Portland	1	1.0	0.99	0	0	1		
Ankney	28 th	Martin Luther King, Jr.	Portland	1	1.2	0.84	0	1	0		

	Auto High Injury Corridors –Severe Crashes per Mile										
Corridor	From	То	Jurisdiction	# of Crashes	Length	Severe Crashes per Mile					
I-5 Southbound	I-405 at Fremont Bridge	Burnside Bridge	Portland	11	1.5	7.28					
Adair	Baseline	Pacific	Cornelius & Forest Grove	11	1.5	7.18					
I-5 Northbound	Marquam Bridge	I-405	Portland	16	2.5	6.34					
Division	7 th	190 th	Gresham & Portland	54	9.6	5.60					
181 st	Sandy	182 nd	Gresham	11	2.1	5.20					
Ross Island Bridge	Grand	I-5	Portland	7	1.4	5.08					
Rosa Parks	Cully	Killingsworth	Portland	8	1.6	4.98					
I-5 - Southbound	Hwy 217	Tualatin River	Tigard	5	1.0	4.85					
Tualatin Valley Highway	Hocken	10 th	Washington County, Beaverton, & Hillsboro	40	8.3	4.80					
Sunset Highway (Eastbound)	Hwy 217	Tunnel	Multnomah County, Beaverton, & Portland	9	1.9	4.63					
Hwy 217 Southbound	Sunset Highway	Beaverton Hillsdale	Beaverton	8	1.8	4.57					
I-84 Westbound	Martin Luther King Jr.	82 nd	Portland	21	4.8	4.41					
I-205 Southbound	Washington State Line	Marine Dr	Portland	7	1.6	4.36					
Hwy 217 Northbound	Scholls Ferry	Pacific Highway	Beaverton & Tigard	7	1.6	4.29					
185 th	Springville	Farmington	Washington County & Hillsboro	25	6.0	4.16					
I-84 Eastbound	I-5	I-205	Portland	20	4.9	4.07					
Washington Street	Stark St.	Thorburn	Portland	8	2.0	4.05					
96 th	SE Washington St.	SE Division St.	Portland	4	1.0	3.97					
Hwy 217 Northbound	Beaverton Hillsdale	Sunset Highway	Beaverton	7	1.8	3.96					
I-5 Northbound	Kruse	Nyberg	Clack. Co, Wash. Co, L. Oswego, Tigard & Tualatin	11	2.8	3.96					
Broadway	SW 4 th	Naito	Portland	8	2.0	3.92					
Halsey	I-84 at NE 67 th	Sandy	Portland	6	1.6	3.84					
47 th	Glisan	Wistaria	Portland	4	1.0	3.83					
102 nd	Sandy	Cherry Blossom	Maywood Park & Portland	11	2.9	3.81					
Tualatin Sherwood	Pacific Highway	Nyberg	Washington County & Sherwood & Tualatin	17	4.5	3.75					
I-205 Southbound	Washington State Line	Division	Portland	4	1.1	3.70					
Brookwood	Shute	Sunset Highway	Hillsboro	4	1.1	3.68					
Tualatin Valley Highway	341 st	17 th	Washington County, Cornelius, & Hillsboro	4	1.1	3.63					
I-5 Southbound	Nyberg	Kruse	Tigard & Tualatin	5	1.4	3.62					
I-205 Northbound	Airport Way	Washington State Line	Portland	6	1.7	3.59					
I-5 Southbound	Wilsonville Road	Miley	Clackamas County & Wilsonville	4	1.1	3.58					
SE Bob Schumacher Road	Idleman & Otty	Stevens	Clackamas County & Hanny Valley	4	11	3.49					

	Auto High Injury Corridors –Severe Crashes per Mile									
Corridor	From	То	Jurisdiction	# of Crashes	Length	Severe Crashes per Mile				
I-5 Northbound	Bertha Blvd	Marquam Bridge	Portland	11	3.2	3.45				
Allen	Davis	92 nd	Beaverton	10	2.9	3.41				
Beaverton Hillsdale	Capitol Highway	Lombard	Washington County, Beaverton, & Portland	18	5.3	3.38				
Canyon	Hocken	Sunset Highwa	Beaverton	13	3.9	3.37				
I-5 Southbound	Bertha Blvd	Powell	Portland	9	2.7	3.36				
112 th	Holgate	Cherry Blossom	Portland	5	1.5	3.32				
Cedar Hills	Farmington	Cornell	Beaverton	11	3.3	3.32				
82 nd	Killingsworth	Causey	Clackamas County & Gladstone & Portland	44	13.4	3.29				
Pacific	Baseline	E St (Forest Grove)	Cornelius & Forest Grove	8	2.5	3.23				
Foster	136 th	50 th & Powell	Portland	15	4.7	3.21				
Powell	Burnside	McLoughlin	Gresham & Portland	41	12.9	3.18				
162 nd	Powell	Sandy	Gresham & Portland	12	3.8	3.17				
Hwy 212	Highway 224 (near 122 nd)	Highway 224 (near 152 nd)	Clackamas County & Happy Valley	5	1.6	3.10				
I-5 Northbound	Multnomah	99W	Portland	9	2.9	3.06				
I205 Southbound	Killingsworth	Alderwood	Maywood Park & Portland	5	1.6	3.05				
Baseline	TV Highway (near SW 17 th)	TV Highway (near SE 10 th)	Hillsboro	5	1.7	3.01				
I-5 Southbound	Multnomah	Capitol Highway	Portland	5	1.7	2.99				
I-205 Northbound	South of SE Sunnybrook Blvd.	Strawberry	Clackamas County	6	2.0	2.99				
Martin Luther King Jr.	Columbia	Division	Portland	17	5.8	2.93				
Grand	Broadway	Powell	Portland	10	3.5	2.89				
Weidler	24 th	Broadway	Portland	4	1.4	2.87				
Brockman	125 th & Greenway	Beard	Beaverton	3	1.1	2.82				
Sandy	7 th	165 th	Maywood Park & Portland	27	9.6	2.82				
I-5 Northbound	Rosa Parks	Columbia	Portland	3	1.1	2.81				
Baseline	Jenkins	Brookwood & Main	Washington County, Beaverton & Hillsboro	13	4.6	2.80				
Avery	Tualatin Sherwood	Boones Ferry	Tualatin	3	1.1	2.78				
I-5 Southbound	Rosa Parks	Columbia	Portland	3	1.1	2.77				
Butler	190 th & Pleasant View	Regner	Gresham	5	1.8	2.75				
122 nd	Skidmore	Foster	Portland	15	5.5	2.75				
Evergreen	Glencoe	Cornell	Washington County & Hillsboro	19	7.0	2.71				
11 th	Sandy	Clinton	Portland	7	2.6	2.70				
1 st	Glencoe	Wood	Hillsboro	4	1.5	2.70				

	Auto High Injury Corridors –Severe Crashes per Mile								
Corridor	From	То	Jurisdiction	# of Crashes	Length	Severe Crashes per Mile			
Barbur	65 th	Sheridan	Portland	17	6.3	2.68			
Bethany	West Union	Cornell	Washington County & Beaverton	3	1.1	2.68			
Kane	257 th & Stark	Orient & Palmquist	Gresham & Troutdale	6	2.2	2.67			
Garden Home	Multnomah	92 nd Place	Washington County, Beaverton, & Portland	3	1.1	2.66			
Cornell	Main	Butler	Hillsboro	14	5.3	2.63			
Highway 47	David Hill	Martin	Washington County & Forest Grove	4	1.5	2.62			
Johnson Creek	42 nd	Highgate	Clackamas Co, Happy Valley, Milwaukie & PDX	9	3.5	2.59			
Baseline	Tualatin Valley Highway	Pacific	Cornelius	6	2.3	2.58			
I-5 Northbound	Wilsonville Road	Miley	Clackamas County & Wilsonville	3	1.2	2.58			
Brookwood	Shute	Tualatin Valley Highway	Hillsboro	10	3.9	2.57			
Murray	Barrows	Walker	Beaverton & Tigard	15	5.9	2.56			
Halsey	84 th	244 th	Fairview, Gresham, PDX, Troutdale & W.V.	24	9.5	2.54			
Lower Boones Ferry	Pilkington	Upper Boones Ferry	Lake Oswego & Tualatin	3	1.2	2.51			
Farmington	170 th	Beaverton Hillsdale	Washington County & Beaverton	13	5.2	2.50			
Orient	Kane & Palmquist	Welch	Gresham	3	1.2	2.49			
Barnes	Burnside	118 th	Washington County, Beaverton & Portland	8	3.2	2.48			
257 th	I-84	Kane & Stark	Troutdale	5	2.1	2.44			
Jennings	River	Webster	Clackamas County & Gladstone	5	2.1	2.37			
McLoughlin	Jefferson	Willamette Drive	Clack Co, Gladstone, Milwaukie & Oregon City	16	6.8	2.35			
Cesar E. Chavez	Wistaria	Woodstock	Portland	11	4.7	2.33			
Lovejoy	Cornell	Broadway	Portland	3	1.3	2.31			
Burnside	127 th	Powell	Gresham & Portland	21	9.1	2.30			
182 nd	Highland & Powell	181 st	Gresham	4	1.7	2.30			

Pedestrian High Injury Corridors – Severe Crashes per Mile										
Corridor	From	То	Jurisdiction	# of Severe Crashes	Length	Severe Crashes per Mile	# of Minor Crashes Mile			
Division	7 th	190 th	Gresham & Portland	22	9.6	2.28	61			
82 nd	Killingsworth	Causey	Clackamas Co., Gladstone & PDX	27	13.4	2.02	93			
Broadway	SW 4 th	Naito	Portland	4	2.0	1.96	24			
McLoughlin	Jefferson	Oregon City Bridge	Clackamas Co., Gladstone, Milwaukie, & Oregon City	13	6.8	1.91	32			
Foster	136 th	50 th Ave & Powell Blvd.	Portland	8	4.7	1.71	18			
East Burnside	75 th	124 th	Portland	4	2.6	1.55	7			
SW 4 th	Sheridan	Burnside	Portland	2	1.3	1.53	20			
SE 28 th	Madison	Knott	Portland	3	2.0	1.49	5			
SE/NE 102 nd	Sandy	Cherry Blossom	Maywood Park & Portland	4	2.9	1.38	19			
Burnside	At SW Barnes	NE 68 th	Portland	14	10.2	1.37	56			
Alberta	33 rd	Martin Luther King Jr.	Portland	2	1.5	1.34	13			
SE/NE 162 nd	Powell	Sandy	Gresham & Portland	5	3.8	1.32	11			
Highway 212	I-205	East of HWY 224 Interchange	Clackamas County & Happy Valley	3	2.4	1.25	9			
Baseline	TV Highway (near SW 17 th)	TV Highway (near SE 10 th)	Hillsboro	2	1.7	1.21	12			
Powell	Burnside	McLoughlin	Gresham & Portland	15	12.9	1.16	75			
Grand	Broadway	Powell	Portland	4	3.5	1.16	12			
SE 182 nd	Highland & Powell	181 st	Gresham	2	1.7	1.15	7			
Everett	Westover	Naito	Portland	2	1.8	1.10	13			
SW/NW 6 th Ave.	Sheridan	Irving	Portland	2	1.8	1.10	10			
Martin Luther King Jr.	Columbia	Division	Portland	6	5.8	1.03	31			
SE 96 th	Washington Street	Division	Portland	1	1.0	0.99	5			
SE 181 st	Sandy	182 nd	Gresham	2	2.1	0.95	16			
Sandy	7 th	165 th	Maywood Park & Portland	9	9.6	0.94	41			
Multnomah Street	Steel Bridge	21 st	Portland	2	2.2	0.91	14			
Kane	257 th & Stark	Orient & Palmquist	Gresham & Troutdale	2	2.2	0.89	15			
SW/NW 11 th	Lovejoy	Market	Portland	1	1.1	0.89	7			
Cesar E. Chavez	Wistaria	Woodstock	Portland	4	4.7	0.85	27			
SW/ NW 10 th Ave.	Northrup	Market	Portland	1	1.2	0.80	8			
Broadway	Broadway Bridge	Sandy	Portland	2	2.5	0.80	26			
Lovejoy	Cornell	Broadway	Portland	1	1.3	0.77	8			
NE/SE 122 nd	Skidmore	Foster	Portland	4	5.5	0.73	30			
1 st	Glencoe	Wood	Hillsboro	1	1.5	0.68	12			
Hawthorne	51 st	Martin Luther King Jr.	Portland	2	3.1	0.66	18			
SW/NW 5 th	7 th	190 th	Portland	1	1.8	0.55	14			
Jefferson	Vista	3 rd	Portland	0	1.0	0.00	8			

Bike High Injury Corridors –Severe Crashes per Mile										
Corridor	From	То	Jurisdiction	# of FA Crashes	Length	FA Crashes per Mile	# of BC Crashes			
SE 50 th	Powell	Division	Portland	2	1.1	1.79	5			
NE Wielder	24 th	Broadway	Portland	2	1.4	1.44	19			
Marine Drive	122 nd	Portland Airport	Portland	3	2.7	1.12	3			
NW Everett	Westover	Naito	Portland	2	1.8	1.10	13			
Skidmore	Interstate	Martin Luther King Jr.	Portland	1	1.0	0.99	11			
SW/NE 257 th	I-84	Kane & Stark	Troutdale	2	2.1	0.97	6			
SE 28 th	Woodstock	Gladstone	Portland	1	1.1	0.88	3			
SE Ankeny	28 th	Martin Luther King Jr.	Portland	1	1.2	0.84	14			
10 th	Cornelius Schefflin	Oleander	Cornelius	1	1.2	0.81	3			
Powell	Burnside	McLoughlin	Gresham & Portland	9	12.9	0.70	45			
Martin Luther King Jr.	Columbia	Division	Portland	4	5.8	0.69	38			
SW/NW 18 th	Thurman	Collins & Jefferson	Portland	1	1.5	0.69	7			
Ainsworth	Vancouver	27 th	Portland	1	1.5	0.67	5			
Gladstone	42 nd	52 nd	Portland	1	1.5	0.67	7			
Hawthorne	51 st	Martin Luther King Jr.	Portland	2	3.1	0.66	46			
Adair	Baseline	Pacific	Cornelius & Forest Grove	1	1.5	0.65	6			
Foster	136 th	50 th & Powell	Portland	3	4.7	0.64	25			
Oak	Baseline & T.V. Highway	10 th	Hillsboro	1	1.6	0.62	4			
Tualatin Valley Highway	Hocken	10 th	Washington Co., Beaverton & Hillsboro	5	8.3	0.60	26			
Grand	Broadway	Powell	Portland	2	3.5	0.58	34			
Broadway	SW 4 th	Naito	Portland	1	2.0	0.49	37			
Clinton	50 th	12 th	Portland	1	2.1	0.48	7			
Williams	Jessup	Wheeler	Portland	2	4.2	0.48	25			
Vancouver	Weilder	Martin Luther King Jr.	Portland	3	6.3	0.47	30			
SE/NE 181 st	Sandy	182 nd	Gresham	1	2.1	0.47	19			
Multnomah	Steel Bridge	21 st	Portland	1	2.2	0.45	16			
Cesar E. Chavez	Wistaria	Woodstock	Portland	2	4.7	0.42	19			
Division	7 th	190 th	Gresham & Portland	4	9.6	0.41	52			
Belmont	69 th	Grand	Portland	2	4.8	0.41	15			
Broadway	Broadway Bridge	Sandy	Portland	1	2.5	0.40	54			
SE 11 th	Sandy	Clinton	Portland	1	2.6	0.39	19			
Multnomah Blvd.	Garden Home	I-5	Portland	1	2.7	0.37	10			
185 th	Springville	Farmington	Washington Co. & Hillsboro	2	6.0	0.33	21			

Bike High Injury Corridors –Severe Crashes per Mile							
Corridor	From	То	Jurisdiction	# of FA Crashes	Length	FA Crashes per Mile	# of BC Crashes
Barbur Drive	65 th	Sheridan	Portland	2	6.3	0.32	26
NE/SE 82 nd	Killingsworth	Berkeley St.	Clackamas Co., Gladstone & Portland	4	13.4	0.30	61
Naito	Ross Island Bridge	15 th & Front	Portland	1	4.0	0.25	19
26 th	Holgate	Division	Portland	0	1.0	0.00	11
4 th	Sheridan	Burnside	Portland	0	1.3	0.00	14
Capitol Highway	Beaverton Hillsdale & Bertha	Barbur Blvd	Portland	0	2.3	0.00	24
30 th	Division	Stark	Portland	0	1.0	0.00	9
28 th	Madison	Knott	Portland	0	2.0	0.00	16
Eastman	223 rd & Fairview	Towle	Gresham	0	1.7	0.00	13
6 th	Sheridan	Irving & Stanton	Portland	0	1.8	0.00	10
122 nd	Skidmore	Foster	Portland	0	5.5	0.00	32
96th	99 th & Washington	Division & Powell	Portland	0	1.0	0.00	6
Kane	257 th & Stark	Orient & Palmquist	Gresham & Troutdale	0	2.2	0.00	12
25 th	Evergreen	Veterans	Washington County & Hillsboro	0	1.8	0.00	9
Burnside	75 th	124 th	Portland	0	2.6	0.00	13
14 th	Northrup	Jefferson	Portland	0	1.0	0.00	5
Cornell	Main	Butler	Hillsboro	0	5.3	0.00	22
223 rd	Halsey	Eastman & Fairview	Fairview, Gresham & Wood Village	0	1.7	0.00	8
Morrison	25 th	Grand	Portland	0	2.0	0.00	9
Division	Troutdale	Eastwood	Multnomah County & Gresham	0	4.4	0.00	19
1 st	Salmon	Grover	Portland	0	1.2	0.00	5
Greenburg	Hall	North Dakota	Beaverton & Tigard	0	1.1	0.00	5
Sagert	Boones Ferry	65 th	Tualatin	0	1.2	0.00	5

Clean air and clean water do not stop at city limits or county lines. Neither does the need for jobs, a thriving economy and sustainable transportation and living choices for people and businesses in the region. Voters have asked Metro to help with the challenges and opportunities that affect the 25 cities and three counties in the Portland metropolitan area.

A regional approach simply makes sense when it comes to providing services, operating venues and making decisions about how the region grows. Metro works with communities to support a resilient economy, keep nature close by and respond to a changing climate. Together we're making a great place, now and for generations to come.

Metro Council President

Tom Hughes

Metro Council

Shirley Craddick, District 1 Carlotta Collette, District 2 Craig Dirksen, District 3 Kathryn Harrington, District 4 Sam Chase, District 5 Bob Stacey, District 6

Auditor

Brian Evans



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www.oregonmetro.gov/rtp

Oct. 26, 2015



Date:	Friday, January 27, 2017
To:	TPAC
From:	Chris Myers, Regional Planner
Subject:	Unified Planning Work Program (UPWP) 2017-18 Update

The Unified Planning Work Program (UPWP) is developed annually by Metro as the Metropolitan Planning Organization (MPO) for the Portland Metropolitan Area. It is a federally-required document that serves as a guide for transportation planning activities to be conducted over the course of each fiscal year, beginning on July 1st. Included in the UPWP are detailed descriptions of the transportation planning tasks, listings of various activities, and a summary of the amount and source of state and federal funds to be used for planning activities. The UPWP is developed by Metro with input from local governments, TriMet, ODOT, FHWA, and FTA.

At the January 27, 2017 TPAC, Metro staff will present the attached draft UPWP document for information feedback gathering purposes. Updates to the document include additional information requested by FTA and FHWA, for Metro, ODOT and other projects. Agencies have responded with updates to language that better defines projects and the partnerships between agencies.

In an effort to make the 2017-18 UPWP an informative document, we have included a map that better defines the region in terms of the Metro Jurisdictional Boundary. Additionally, we have incorporated the 2013 corrective actions, recommendations and commendations requested by FHWA.

STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO.17-XXXX, FOR THE PURPOSE OF ADOPTING THE FISCAL YEAR 2017-18 UNIFIED PLANNING WORK PROGRAM AND CERTIFYING THAT THE PORTLAND METROPOLITAN AREA IS IN COMPLIANCE WITH THE FEDERAL TRANSPORTATION PLANNING REQUIREMENTS

Date: January 27, 2017

Prepared by: Chris Myers (503) 813-7554

BACKGROUND

The Unified Planning Work Program (UPWP) is developed annually by Metro as the Metropolitan Planning Organization (MPO) for the Portland Metropolitan Area. It is a federally-required document that serves as a guide for transportation planning activities to be conducted over the course of each fiscal year, beginning July 1.

The UPWP is developed by Metro with input from local governments, TriMet, ODOT, the Port of Portland, FHWA, and FTA. Included in the UPWP are detailed descriptions of the transportation planning tasks, listings of various activities, and a summary of the amount and source of state and federal funds to be used for planning activities.

Every four years, Metro as an MPO, undergoes a quadrennial certification review with (Federal Transit Administration [FTA] and Federal Highway Administration [FHWA]) to ensure compliance with federal transportation planning requirements. The next quadrennial certification review will take place in February 2017. In the intervening years Metro undergoes a required self-certification process with the FHWA and FTA, to ensure Metro's planning process is in compliance with specific federal requirements as a prerequisite to receiving federal funds.

The annual self-certification is processed in tandem with the Unified Planning Work Program (UPWP) and documents that Metro has met those requirements. Required self-certification areas include:

- Metropolitan Planning Organization (MPO) designation
- Geographic scope
- Agreements
- Responsibilities, cooperation and coordination
- Metropolitan Transportation Planning products
- Planning factors
- Public Involvement
- Title VI
- Environmental Justice
- Disadvantaged Business Enterprise (DBE)
- Americans with Disabilities Act (ADA)
- Construction Contracts
- Lobbying

Each of these areas is discussed in Exhibit B to Resolution No.17-XXXX.

ANALYSIS/INFORMATION

1. Known Opposition – No known opposition

- 2. **Legal Antecedents** this resolution certifies that the Portland metropolitan area is in compliance with Federal transportation planning requirements, as defined in Title 23 of the Code of Federal Regulations, Parts 450 and 500, and title 49, of the Code of Federal Regulations, Part 613.
- 3. Anticipated Effects Approval means that grants can be submitted and contracts executed so work can commence on July 1, 2017 in accordance with established Metro priorities.
- 4. **Budget Impacts** Approval of this resolution is a companion to the UPWP. It is a prerequisite to receipt of Federal planning funds and is, therefore, critical to the Metro budget. The UPWP matches projects and studies reflected in the proposed Metro budget submitted by the Metro Chief Operating Officer to the Metro Council. The UPWP is subject to revision in the final adopted Metro budget.

RECOMMENDED ACTION

Approve Resolution No.17-XXXX certifying that the Portland metropolitan area is in compliance with federal transportation planning requirements.

2017 Metro Self-Certification

1. Metropolitan Planning Organization Designation

Metro is the metropolitan planning organization (MPO) designated by Congress and the State of Oregon for the Oregon portion of the Portland/Vancouver urbanized area, covering 25 cities and three counties. It is Metro's responsibility to meet the requirements of federal planning rules as defined in Title 23 of U.S. Code Part 450 Subpart C and Title 49 of U.S. Code Part 613 Subpart A, the Oregon Transportation Planning Rule, which implements Statewide Planning Goal 12, and the Metro Charter for this MPO area. In combination, these requirements call for development of a multi-modal transportation system plan that is integrated with and supports the region's land use plans, and meets federal and state planning requirements.

Metro is governed by an elected regional council, in accordance with a voter-approved charter. The Metro Council is comprised of representatives from six districts and a Council President elected region-wide. The Chief Operating Officer is appointed by the Metro Council and leads the day-to-day operations of Metro. Metro uses a decision-making structure that provides state, regional and local governments the opportunity to participate in the transportation and land use decisions of the organization. Two key committees are the Joint Policy Advisory Committee on Transportation (JPACT) and the Metro Policy Advisory Committee (MPAC). These committees are comprised of elected and appointed officials and receive technical advice from the Transportation Policy Alternatives Committee (TPAC) and the Metro Technical Advisory Committee (MTAC).

2. Geographic Scope

The Metropolitan Planning Area boundary establishes the area in which the Metropolitan Planning Organization conducts federally mandated transportation planning work, including: a long-range Regional Transportation Plan, the Metropolitan Transportation Improvement Program for capital improvements identified for a four-year construction period, a Unified Planning Work Program, a congestion management process, and conformity to the state implementation plan for air quality for transportation related emissions.

The Metropolitan Planning Area (MPA) boundary is a federal requirement for the metropolitan planning process. The boundary is established by the governor and individual Metropolitan Planning Organizations within the state, in accordance with federal metropolitan planning regulations. The MPA boundary must encompass the existing urbanized area and the contiguous areas expected to be urbanized within a 20-year forecast period. Other factors may also be considered to bring adjacent territory into the MPA boundary. The boundary may be expanded to encompass the entire metropolitan statistical area or combined as defined by the federal Office of Management and Budget.

The current boundary was updated and approved by the Governor of Oregon in July 2015 following the release of the new urbanized area definitions by the Census Bureau. The planning area boundary includes the urbanized area, areas within the Metro jurisdictional boundary, urban reserve areas representing areas that may urbanize within the next 20 years, and the areas around 5 key transportation facility interchanges adjacent to and that serve the urban area.

3. Agreements

- A Memorandum of Understanding between Metro and the Southwest Washington Regional Transportation Council (RTC) delineates areas of responsibility and coordination. Executed in April 2012, the Agreement will be updated in June 2018.
- In accordance with 23 CFR 450.314, an intergovernmental agreement (IGA) between TriMet, Oregon Department of Transportation (ODOT), and Metro was executed in July 2008, to be updated in June 2018.
- Yearly agreements are executed between Metro and ODOT defining the terms and use of FHWA planning funds.
- Bi-State Coordination Committee Charter Metro and eleven state and local agencies adopted resolutions approving a Bi-State Coordination Committee Charter in 2004. Some were adopted in late 2003 and the balance in 2004, which triggered the transition from the Bi-State Transportation Committee to the Bi-State Coordination Committee
- A Memorandum of Understanding between Metro and the Department of Environmental Quality (DEQ) describing each agency's responsibilities and roles for air quality planning. Executed in September 2013, it will be updated in September 2016.
- A Memorandum of Understanding between Metro and South Metro Area Regional Transit (SMART) outlines roles and responsibilities for transportation planning between Metro and SMART as required by federal transportation planning guidelines. Executed in July 2014, to be updated in July 2017.

4. Responsibilities, Cooperation and Coordination

Metro uses a decision-making structure, which provides state, regional, and local governments the opportunity to participate in the transportation and land use decisions of the organization. The two key committees are JPACT and MPAC. These committees receive recommendations from the Transportation Policy Alternatives Committee (TPAC) and the Metro Technical Advisory Committee (MTAC).

Joint Policy Advisory Committee on Transportation

JPACT is chaired by a Metro Councilor and includes two additional Metro Councilors, seven locally elected officials representing cities and counties, and appointed officials from the Oregon Department of Transportation (ODOT), TriMet, the Port of Portland, and the Department of Environmental Quality (DEQ). The State of Washington is also represented with three seats that are traditionally filled by two locally elected officials and an appointed official from the Washington Department of Transportation (WSDOT). All transportation-related actions (including Federal MPO actions) are recommended by JPACT to the Metro Council. The Metro Council can approve the recommendations or refer them back to JPACT with a specific concern for reconsideration.

Final approval of each action requires the concurrence of both JPACT and the Metro Council. JPACT is primarily involved in periodic updates to the Regional Transportation Plan (RTP), Metropolitan

Transportation Improvement Program (MTIP), and review of ongoing studies and financial issues affecting transportation planning in the region.

Bi-State Coordination Committee

Based on a recommendation from the I-5 Transportation & Trade Partnership Strategic Plan, the Bi-State Transportation Committee became the Bi-State Coordination Committee in early 2004. The Bi-State Coordination Committee was chartered through resolutions approved by Metro, Multnomah County, the cities of Portland and Gresham, TriMet, ODOT, the Port of Portland, Southwest Washington Regional Transportation Council (RTC), Clark County, C-Tran, Washington State Department of Transportation (WSDOT) and the Port of Vancouver. The Committee is charged with reviewing and coordinating all issues of bi-state significance for transportation and land use.

Metro Policy Advisory Committee

MPAC was established by Metro Charter to provide a vehicle for local government involvement in Metro's growth management planning activities. It includes eleven locally-elected officials, three appointed officials representing special districts, TriMet, a representative of school districts, three citizens, two Metro Councilors (with non-voting status), two officials from Clark County, Washington and an appointed official from the State of Oregon (with non-voting status). Under Metro Charter, this committee has responsibility for recommending to the Metro Council adoption of, or amendment to, any element of the Charter-required Regional Framework Plan.

The Regional Framework Plan was first adopted in December 1997 and addresses the following topics:

- Transportation
- Land Use (including the Metro Urban Growth Boundary (UGB))
- Open Space and Parks
- Water Supply and Watershed Management
- Natural Hazards
- Coordination with Clark County, Washington
- Management and Implementation

In accordance with these requirements, the Regional Transportation Plan is developed to meet Federal transportation planning guidelines such as FAST Act and MAP-21, the Oregon Transportation Planning Rule, and Metro Charter requirements, with input from both MPAC and JPACT. This ensures proper integration of transportation, land use, and environmental concerns.

5. <u>Metropolitan Transportation Planning Products</u>

a. Unified Planning Work Program

The Unified Planning Work Program (UPWP) is developed annually by Metro as the MPO for the Portland metropolitan area. It is a federally-required document that serves as a tool for coordinating federally-funded transportation planning activities to be conducted over the course of each fiscal year, beginning on July 1st. Included in the UPWP are detailed descriptions of the transportation planning tasks, listings of various activities, and a summary of the amount and source of state and federal funds to be used for planning activities. The UPWP is developed by Metro with input from local governments, TriMet, ODOT, Port of Portland, FHWA and FTA.

Additionally, Metro must annually undergo a process known as self-certification to demonstrate that the Portland metropolitan region's planning process is being conducted in accordance with all applicable federal transportation planning requirements. Self-certification is conducted in conjunction with annual adoption of the UPWP.

b. Regional Transportation Plan

The Plan must be prepared and updated every 4 years and cover a minimum 20-year planning horizon with air quality conformity and fiscal constraint.

Scope of the planning process

The metropolitan planning process shall provide for consideration of projects and strategies that will:

- a. support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
- b. increase the safety of the transportation system for motorized and non-motorized users;
- c. increase the security of the transportation system for motorized and non-motorized users;
- d. increase the accessibility and mobility of people and for freight;
- e. 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;
- f. enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- g. promote efficient system management and operation; and
- h. emphasize the preservation of the existing transportation system.

Metropolitan planning organizations (MPOs) must establish and use a performance-based approach to transportation decision making and development of transportation plans to support the national goal areas:

- **Safety** To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- Infrastructure Condition To maintain the highway infrastructure asset system in a state of good repair
- **Congestion Reduction** To achieve a significant reduction in congestion on the National Highway System
- System Reliability To improve the efficiency of the surface transportation system
- Freight Movement and Economic Vitality To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- **Environmental Sustainability** To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- **Reduced Project Delivery Delays** To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

Elements of the RTP

The long-range transportation plan must include the following:

- Identification of transportation facilities (including major roadways, transit, bike, pedestrian and intermodal facilities and intermodal connectors) that function as an integrated metropolitan transportation system.
- A description of the performance measures and performance targets used in assessing the performance of the transportation system and how their development was coordinated with state and public transportation providers
- A system performance report and subsequent updates evaluating the condition and performance of the transportation system with respect to the performance targets
- A discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the plan.
- A financial plan that demonstrates how the adopted transportation plan can be implemented; indicates resources from public and private sources that are reasonably expected to be made available to carry out the plan; and recommends any additional financing strategies for needed projects and programs.
- Operational and management strategies to improve the performance of existing transportation facilities to manage vehicular congestion and maximize the safety and mobility of people and goods.
- Capital investment and other strategies to preserve the existing and projected future metropolitan transportation infrastructure and provide for multimodal capacity increases based on regional priorities and needs.
- Proposed transportation and transit enhancement activities

c. Metropolitan Transportation Improvement Program

The Metropolitan Transportation Improvement Program (MTIP) is a critical tool for implementing monitoring progress of the Regional Transportation Plan (RTP) and 2040 Growth Concept. The MTIP programs and monitors funding for all regionally significant projects in the metropolitan area. Additionally, the program administers the allocation of urban Surface Transportation Program (STP), Congestion Mitigation Air Quality (CMAQ) and Transportation Alternatives Program (TAP) funding through the regional flexible fund process. Projects are allocated funding based upon technical and policy considerations that weigh the ability of individual projects to implement federal, state, regional and local goals. Funding for projects in the program are constrained by expected revenue as defined in the Financial Plan.

The MTIP is also subject to federal and state air quality requirements, and a determination is made during each allocation to ensure that the updated MTIP conforms to air quality regulations. These activities require special coordination with staff from U.S. Department of Transportation, U.S. Environmental Protection Agency, Oregon Department of Environmental Quality, Oregon Department of Transportation (ODOT), TriMet, South Metro Area Regional Transit (SMART), and other regional, county and city agencies.

The 2015 -18 MTIP was adopted in July 2014 and was incorporated into the 2015 -18 STIP. Amendments to the MTIP and development of the 2018 -21 MTIP are included as part of the Metropolitan Transportation Improvement Program work program.

The short-range metropolitan TIP includes the following required elements:

- A priority list of proposed federally supported projects and strategies to be carried out within the TIP period.
- A financial plan that demonstrates how the TIP can be implemented.
- Descriptions of each project in the TIP.
- Programming of funds in year of expenditure dollars.
- Documentation of how the TIP meets other federal requirements such as addressing the federal planning factors.
- The MTIP also includes publication of the annual list of obligated projects. The most recent publication was provided in December 2015. All prior year obligation reports are available on the Metro website.

D. Congestion Management Process

The 2007 SAFETEA-LU federal transportation legislation updated requirement for a Congestion Management Process (CMP) for metropolitan planning organizations (MPOs) in Transportation Management Areas (TMAs – urban areas with a population exceeding 200,000), placing a greater emphasis on management and operations and enhancing the linkage between the CMP and the long-range regional transportation plan (RTP) through an objectives driven, performance-based approach. MAP-21 retained the CMP requirement while enhancing requirements for congestion and reliability monitoring and reporting. The most recent federal transportation legislation, FAST Act, retained the CMP requirement set forth in MAP-21.

A CMP is a systematic approach for managing congestion that provides information on transportation system performance. It recommends a range of strategies to minimize congestion and enhance the mobility of people and goods. These multimodal strategies include, but are not limited to, operational improvements, travel demand management, policy approaches, and additions to capacity. The region's CMP will continue to advance the goals of the 2014 RTP and strengthen the connection between the RTP and the Metropolitan Transportation Improvement Program (MTIP).

The goal of the CMP is to provide for the safe and effective management and operation of new and existing transportation facilities through the use of demand reduction and operational management strategies.

E. Air Quality Conformity

The Air Quality Program ensures the Regional Transportation Plan (RTP) and the Metropolitan Transportation Improvement Program (MTIP) for the Portland metropolitan area address state and federal regulations and coordinates with other air quality initiatives in the region.

The state and federal component of the Air Quality Program is the Air Quality Conformity Determination (AQCD) which is a technical analysis to determine the air quality impacts of the RTP and MTIP. An AQCD is made during the update to each MTIP and RTP or when amendments to the MTIP or RTP warrant a re-evaluation of air quality impacts. The AQCD requires special coordination with staff from Oregon Department of Environmental Quality (DEQ) and other regional, county, city and state agencies. The AQCD is guided by the transportation conformity rules set forth in the Clean Air Act and additional local requirements in the Portland Area Second 10-Year Maintenance Plan, which is a component of the State Implementation Plan (SIP). The SIP is overseen by DEQ and approved by the U.S. Environmental Protection Agency (EPA). When Metro seeks approval of an AQCD the review and approval process are done in consultation with DEQ and EPA, but joint approval is issued by the Federal Highway Administration and Federal Transit Administration.

6. Planning Factors

Moving Ahead for Progress in the 21st Century (MAP-21), passed by U.S. Congress and signed into law by the President in 2012, defines specific planning factors and national goal areas to be considered when developing transportation plans and programs in a metropolitan area. MAP-21 creates a streamlined and performance-based surface transportation investment program and builds on many of the highway, transit, bike, and pedestrian programs and policies established in 1991. The most recent federal transportation funding act, *the Fixing America's Surface Transportation (FAST) Act* continues all of the metropolitan planning requirements that were in effect under MAP-21.

Current requirements call for MPOs to conduct planning that explicitly considers and analyzes, as appropriate, eight factors defined in federal legislation:

- 1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency;
- 2. Increase the safety of the transportation system for motorized and non-motorized users;
- 3. Increase the security of the transportation system for motorized and non-motorized users;
- 4. Increase the accessibility and mobility of people and for freight;
- 5. Protect and enhance the environment, promote energy conservation, improve quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns;
- 6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- 7. Promote efficient system management and operation; and
- 8. Emphasize the preservation of the existing transportation system.
- 9. Improving transportation system resiliency and reliability;
- 10. Reducing (or mitigating) the storm water impacts of surface transportation; and
- 11. Enhancing travel and tourism.

	System Planning	Funding Strategy	High Capacity
Factor	(RTP)	(MTIP)	Transit (HCT)
Factor 1. Support Economic Vitality	 (RTP) RTP policies linked to land use strategies that promote economic development. Industrial areas and intermodal facilities identified in policies as "primary" areas of focus for planned improvements. Comprehensive, multimodal freight improvements that link intermodal facilities to industry are detailed for 20- year plan period. Highway LOS policy tailored to protect key freight corridors. RTP recognizes need for freight linkages to destinations beyond the region by all modes. 	 (MTIP) All projects subject to consistency with RTP policies on economic development and promotion of "primary" land use element of 2040 development such as centers, industrial areas and intermodal facilities. Special category for freight improvements calls out the unique importance for these projects. All freight projects subject to funding criteria that promote industrial jobs and businesses in the "traded sector." 	 Transit (HCT) HCT plans designed to support continued development of regional centers and central city by increasing transit accessibility to these locations. HCT improvements in major commute corridors lessen need for major capacity improvements in these locations, allowing for freight improvements in other corridors.
2. Increase Safety	 The RTP policies call out safety as a primary focus for improvements to the system. Safety is identified as one of three implementation priorities for all modal systems (along with preservation of the system and implementation of the region's 2040-growth management strategy). 	 All projects ranked according to specific safety criteria. Road modernization and reconstruction projects are scored according to relative accident incidence. All projects must be consistent with regional street design guidelines that provide safe designs for all modes of travel. 	 Station area planning for proposed HCT improvements is primarily driven by pedestrian access and safety considerations.
3. Increase Security	• The 2014 RTP calls for implementing investments to increase system monitoring for operations, management, and security of the regional mobility corridor system.	 Transportation security will be factored into the next MTIP update, following completion of the new RTP. 	 System security has been a routine element of the HCT program, and does not represent a substantial change to current practice.

Factor	System Planning (RTP)	Funding Strategy (MTIP)	High Capacity Transit (HCT)
4. Increase Accessibility	 The RTP policies are organized on the principle of providing accessibility to centers and employment areas with a balanced, multi- modal transportation system. The policies also identify the need for freight mobility in key freight corridors and to provide freight access to industrial areas and intermodal facilities. 	 Measurable increases in accessibility to priority land use elements of the 2040- growth concept is a criterion for all projects. The MTIP program places a heavy emphasis on non-auto modes in an effort to improve multi-modal accessibility in the rogion 	 The planned HCT improvements in the region will provide increased accessibility to the most congested corridors and centers. Planned HCT improvements provide mobility options to persons traditionally underserved by the transportation system.
5. Protect Environment and Quality of Life	 The RTP is constructed as a transportation strategy for implementing the region's 2040-growth concept. The growth concept is a long-term vision for retaining the region's livability through managed growth. The RTP system has been "sized" to minimize the impact on the built and natural environment. The region has developed an environmental street design guidebook to facilitate environmentally sound transportation improvements in sensitive areas, and to coordinate transportation project development with regional strategies to protect endangered species. The RTP conforms to the Clean Air Act. 	 The MTIP conforms to the Clean Air Act. The MTIP focuses on allocating funds for clean air (CMAQ), livability (Transportation Enhancement) and multi- and alternative modes (STIP). Bridge projects in lieu of culverts have been funded through the MTIP to enhance endangered salmon and steelhead passage. Complete Streets projects funded to employ new practices for mitigating the effects of storm water runoff. 	 Light rail improvements provide emission-free transportation alternatives to the automobile in some of the region's most congested corridors and centers. HCT transportation alternatives enhance quality of life for residents by providing an alternative to auto travel in congested corridors and centers.

Factor	System Planning (RTP)	Funding Strategy (MTIP)	High Capacity Transit (HCT)
5. Protect Environment and Quality of Life (cont)	 Many new transit, bicycle, pedestrian and TDM projects have been added to the plan in recent updates to provide a more balanced multi-modal system that maintains livability. RTP transit, bicycle, pedestrian and TDM projects planned for the next 20 years will complement the compact urban form envisioned in the 2040 growth concept by promoting an energy-efficient transportation system. Metro coordinates its system level planning with resource agencies to identify and resolve key issues. 		
6. System Integration/ Connectivity	 The RTP includes a functional classification system for all modes that establishes an integrated modal hierarchy. The RTP policies and Functional Plan* include a street design element that integrates transportation modes in relation to land use for regional facilities. The RTP policies and Functional Plan include connectivity provisions that will increase local and major street connectivity. The RTP freight policies and projects address the intermodal connectivity needs at major freight terminals in the region. The intermodal management system identifies key intermodal links in the region. 	 Projects funded through the MTIP must be consistent with regional street design guidelines. Freight improvements are evaluated according to potential conflicts with other modes. 	 Planned HCT improvements are closely integrated with other modes, including pedestrian and bicycle access plans for station areas and park-and-ride and passenger drop-off facilities at major stations.

	System Planning	Funding Strategy	High Capacity
Factor	(RTP)	(MTIP)	Transit (HCT)
7. Efficient Management & Operations	 The RTP policy chapter includes specific system management policies aimed at promoting efficient system management and operation. Proposed RTP projects include many system management improvements along regional corridors. The RTP financial analysis includes a comprehensive summary of current and anticipated operations and maintenance costs. 	 Projects are scored according to relative cost effectiveness (measured as a factor of total project cost compared to measurable project benefits). TDM projects are solicited in a special category to promote improvements or programs that reduce SOV pressure on congested corridors. TSM/ITS projects are funded through the MTIP. 	 Proposed HCT improvements include redesigned feeder bus systems that take advantage of new HCT capacity and reduce the number of redundant transit lines.
8. System Preservation	 Proposed RTP projects include major roadway preservation projects. The RTP financial analysis includes a comprehensive summary of current and anticipated operations and maintenance costs. 	 Reconstruction projects that provide long-term maintenance are identified as a funding priority. 	 The 2014 RTP financial plan includes the 30-year costs of HCT maintenance and operation for planned HCT systems.

* Functional Plan = Urban Growth Management Functional Plan, an adopted regulation that requires local governments in Metro's jurisdiction to complete certain planning tasks.

MAP-21 also requires state DOTs and MPOs to establish performance measures and set performance targets for each of the seven national goal areas to provide a means to ensure efficient investment of federal transportation funds, increase accountability and transparency, and improve investment decision-making. The MAP-21 national goal areas are:

- 1. Safety
- 2. Infrastructure condition
- 3. Congestion reduction
- 4. System reliability
- 5. Freight movement and economic vitality
- 6. Environmental sustainability
- 7. Reduce project delivery delays

7. Public Involvement

Federal regulations place significant emphasis on broadening participation in transportation planning to include key stakeholders who have not historically been involved in the planning process, including the business community, members of the public, community groups, and other governmental agencies. Effective public involvement will result in meaningful opportunities for the public to participate in the planning process.

Metro is committed to transparency and access to decisions, services and information for everyone throughout the region. Metro strives to be responsive to the people of the region, provide clear and concise informational materials and address the ideas and concerns raised by the community. Public engagement activities for decision-making processes are documented and given full consideration.

Metro's public involvement practices follow the agency's Public Engagement Guide (formerly the Public Involvement Policy for Transportation Planning) which reflects changes in the federal transportation authorization act, MAP-21. Metro's public involvement policies establish consistent procedures to ensure all people have reasonable opportunities to be engaged in planning and policy process. Procedures include outreach to communities underserved by transportation projects, public notices and opportunities for comment. The policies also include nondiscrimination standards that Metro, its subcontractors and all local governments must meet when developing or implementing projects that receive funding through Metro. When appropriate, Metro follows specific federal and state direction, such as those associated with the National Environmental Policy Act and Oregon Department of Land Conservation and Development rules, on engagement and notice and comment practices.

In 2012, Metro created a new public engagement review process, designed to ensure that Metro's public involvement is effective, reaches diverse audiences and harnesses emerging best practices. Other components of the public engagement review process which will contribute to more inclusive engagement and accountability include an annual public survey, meetings of public involvement staff from around the region to address best practices, an annual community summit to gather input on priorities and engagement techniques, and an annual report.

Title VI – In April 2010, Metro completed and submitted its Title VI Plan to ODOT. This plan is now being implemented through updates to Metro's RTP and MTIP, and through corridor planning activities in the region. It includes both a non-discrimination policy and complaint procedure. On Aug.31, 2015, Metro submitted a Title VI Compliance Report to ODOT, covering a 12 month period from July 1, 2014, through June 30, 2015. The next annual report will be due Aug. 30, 2016, covering July 1, 2015 to June 30, 2016. On Sept. 30, 2015, Metro submitted its updated Limited English Proficiency Plan as part of an updated Title VI Program to FTA.

Environmental Justice – The intent of environmental justice (EJ) practices is to ensure the needs of minority and disadvantaged populations are considered and the relative benefits/impacts of individual projects on local communities are thoroughly assessed and vetted. Metro continues to expand and explore environmental justice efforts that provide early access to and consideration of planning and project development activities. Metro's EJ program is organized to communicate and seek input on project proposals and to carry those efforts into the analysis, community review and decision-making processes.

Title VI and Environmental Justice in action – The information from and practices for engaging underserved communities were applied to the 2014 Regional Transportation Plan (RTP) update and the 2015-18 Metropolitan Transportation Improvement Program (MTIP), particularly in the civil rights assessment, which sought to better assess the benefits and burdens of regional, programmatic investments for these communities. Using the information from the RFFA process and engaging advocates helped define and determine thresholds for analysis of effects on communities of color, with limited English proficiency and with low-income as well as communities of older and younger adults. Feedback on this analytical process has led to an equity workgroup to further refine how Metro will assess the benefits and burdens of these regional programs on these communities for the 2018 RTP update and the next MTIP.

Diversity, Equity and Inclusion – In 2010, Metro established an agency diversity action team. The team is responsible for identifying opportunities to collaboratively develop and implement sustainable diversity initiatives across and throughout the agency. Metro's diversity efforts are most evident in three areas: Contracts and Purchasing, Community Outreach, and Recruitment and Retention. Metro initiated the Equity Strategy Program, with the objective of creating an organizing framework to help Metro consistently incorporate equity into policy and decision-making. In 2014 as a result of the work of the diversity action team, Metro's communication department explicitly identified a community engagement division, with a focus on better engaging historically underrepresented communities. These efforts aim to go beyond current regulations and guidance for engaging and considering the needs of and effects on communities of color, with limited English proficiency and with low incomes, but work in coordination with Metro's Title VI and Environmental Justice civil rights program. The *Strategic Plan to Advance Racial Equity, Diversity, and Inclusion* was adopted in June 2016.

8. Disadvantaged Business Enterprise

The Metro Disadvantaged Business Enterprise (DBE) seeks to achieve the following:

- Ensure nondiscrimination in the award and administration of assisted contracts;
- Create a level playing field on which DBEs can compete fairly for assisted contracts;
- Ensure that the DBE Program is narrowly tailored in accordance with applicable law:
- Ensure that only firms that fully meet 49 CFR 26 eligibility standards are permitted to participate as DBE's;
- Help remove barriers to the participation of DBEs in assisted contracts; and
- Assist the development of firms that can compete successfully in the market place outside the DBE program.

Policy Statement

Metro is committed to the participation of Disadvantaged Business Enterprise (DBEs) in Metro contracting opportunities in accordance with 49 Code of Federal Regulations (CFR) Part 26, Effective March 4, 1999.

It is the policy of Metro to practice nondiscrimination on the basis of race, color, sex, and/or national origin in the award and administration of Metro assisted contracts. The intention of Metro is to create a level playing field on which DBEs can compete fairly for contracts and subcontracts relating to Metro planning and professional service activities.

The Metro Council is responsible for establishing the DBE policy for Metro. The Executive Officer is responsible to ensure adherence to this policy. The Assistant Director of Administrative Services and the DBE Outreach Coordinator are responsible for the development, implementation and monitoring of the DBE program for contracts in accordance with the Metro nondiscrimination policy. It is the expectation of the Executive Officer that all Metro personnel shall adhere to the spirit, as well as the provisions and procedures, of the DBE program.

This policy will be circulated to all Metro personnel and to members of the community that perform or are interested in performing work on Metro contracts. The complete DBE Program for contracts goals and the overall annual DBE goals analysis are available for review at the:

Metro Contracts Division 600 NE Grand Avenue Portland, Oregon 97232

9. Americans with Disabilities Act

Metro is committed to ensuring its programs, services, facilities and events are inclusive and accessible to people with disabilities. Over the last two decades Metro has completed reviews of its facilities and periodically reviews its policies and practices for compliance with a variety of laws, including the Americans with Disabilities Act (ADA). Metro also systematically reviews new policies and practices for conformance to the requirements of federal and state civil rights and employment laws and requires design professionals, construction contractors and in-house maintenance staff to follow accessible design and construction standards, including the ADA Standards for Accessible Design and the Oregon Structural Specialty Code, during all new construction and renovations.

Metro provides services for people with disabilities –services include: devices and systems assistive listening devices, signage, American Sign Language or audio described interpretation, open captioning, Braille, etc.

In the coming reporting year, Metro will continue to review policies and procedures to ensure they address varying individual needs of persons with disabilities. Metro will seek to enhance staff's understanding of issues pertaining to serving persons with disabilities and create a clearing house to share best practices to broaden inclusion of persons with disabilities during public engagement opportunities.

(<u>http://trimet.org/pdfs/publications/Coordinated Human Services Transportation Plan.pdf</u>) The Coordinated Plan will be incorporated into the 2018 Regional Transportation Plan update.

10. Lobbying

Annually Metro certifies compliance with 49 CFR 20 through the FTA TEAM system.
Click on this link to access the document:

DRAFT Unified Planning Work Program (UPWP) 2017-18 Update

Copies of the DRAFT document will be provided at the meeting.

Memo



Date:	January 19, 2017
То:	Transportation Policy Alternatives Committee (TPAC) and interested parties
From:	Kim Ellis, RTP Project Manager
Subject:	2018 Regional Transportation Plan – Technical Work Group Meetings

PURPOSE

Provide electronic copies of meeting notes from technical work group meetings. No action requested.

BACKGROUND

At the request of members of the Transportation Policy Alternatives Committee (TPAC), meeting notes from work group meetings have been provided to TPAC and the Metro Technical Advisory Committee (MTAC) to help members stay informed of the work group discussions and progress.

The current schedule of work group meetings, rosters and copies of recently completed meeting notes are attached.

FOR MORE INFORMATION

All work group meeting materials and other project related information are posted online at: <u>www.oregonmetro.gov/rtp</u>.

<u>Attachments</u>

- Schedule of 2017 technical work group meetings (Jan. 17, 2017)
- Rosters for Technical Work Groups (Jan. 17, 2017)
- Freight Work Group Meeting #3 (Sept. 27, 2016)
- Performance Work Group Meeting #5 (Oct. 14, 2016)
- Safety Work Group Meeting #3 (Oct. 20, 2016)
- Freight Work Group Meeting #4 (*Nov. 8, 2016*)
- Equity Work Group Meeting #6 (Nov. 17, 2016)
- Performance Work Group Meeting #6 (Dec. 12, 2016)

2018 RTP UPDATE | Technical Work Group Meetings

2017	Equity	Finance	Transit	Freight	Performance	Safety	Design
January			Jan. 25 1-3 p.m., Room 501, MRC			Jan. 24 9-11 a.m., Room 370A/B, MRC	
February			Feb. 15 1-3 p.m., Council chamber, MRC	Feb. 6 3-5 p.m., Council chamber MRC			
March		TBD					
April	April 6 1-4 p.m. Room 401, MRC					April 4 9-11 a.m. Room TBD, MRC	
Мау							
June					June 12 2-4 p.m., Room 401, MRC		
July							
August	August 11 9 a.mnoon Room 401, MRC					TBD	TBD
September	Sept. 15 9 a.mnoon Room 401, MRC						
October	Oct. 20 9 a.mnoon Room 401, MRC				Oct. 2 2-4 p.m. Room 401, MRC	TBD (if needed)	
November					Nov. 3 10-noon Room 401, MRC		TBD
December							

Meeting materials will be posted at oregonmetro.gov/rtp and oregonmetro.gov/calendar





2018 REGIONAL TRANSPORTATION PLAN Rosters for Technical Work Groups

Metro is working with local, regional and state partners and the public to update the region's shared vision and strategy for investing in the transportation system for the next 25 years.

To support development of the 2018 Regional Transportation Plan, Metro staff are convening eight technical work groups to provide input to the project team on implementing policy direction from the Metro Council and regional policy advisory committees. In this role, the work group members review and provide feedback to Metro staff on draft materials and analysis, keep their respective elected officials and agency/organization's leadership informed to identify issues and concerns early on, and integrate input from partners and the public. The work groups also help identify areas for further discussion by the Metro Council and regional technical and policy advisory committees.

Work group members include topical experts and representatives from the Metro Technical Advisory Committee (MTAC) and the Transportation Policy Alternatives Committee (TPAC) or their designees, and other community, business, city and county partners. Meetings of the technical work groups are posted on Metro's calendar at www.oregonmetro.gov/calendar and www.oregonmetro.gov/rtp.

	Name	Affiliation
1.	Jamie Snook	Metro lead
2.	Eric Hesse	TriMet
3.	Stephan Lashbrook	City of Wilsonville's SMART
4.	Roger Hanson	C-TRAN
5.	Dan Bower	Portland Streetcar Inc.
6.	Karyn Criswell	Oregon Department of Transportation
7.	Dyami Valentine	Washington County
	Chris Deffebach (alternate)	
8.	Karen Buehrig	Clackamas County
9.	Kate McQuillan	Multnomah County
10.	Mauricio LeClerc	City of Portland
	April Bertelsen (alternate)	
11.	Brad Choi	City of Hillsboro
	Gregg Snyder (alternate)	
12.	Jay Higgins	City of Gresham
13.	Jon Holan	City of Forest Grove
14.	Luke Pelz	City of Beaverton
15.	Nancy Kraushaar	City of Wilsonville/Cities of Clackamas County
16	Steve Hoyt-McBeth	City of Portland Bike Share program
17.	Vacant	Public health
18.	Alex Page	Ride Connection
19.	Dayna Webb	City of Oregon City
20.	Mike Coleman	Port of Portland
21.+	Regional Transit Providers Group	Varying transit providers in/around the region

Transit Work Group | as of 1/17/17



Freight Work Group | as of 1/17/17

	Name	Affiliation
1.	Tim Collins	Metro lead
2.	Robert Hillier (PBOT)	City of Portland
3.	Phil Healy	Port of Portland
4.	Tony Coleman	Oregon Department of Transportation
5.	Steve Williams	Clackamas County
6.	Kate McQuillan	Multnomah County - Planning
	Joanna Valencia (alternate)	
7.	Erin Wardell	Washington County
	Karen Savage (alternate)	
8.	Kate Dreyfus	City of Gresham
9.	Zoe Monahan	City of Tualatin
10.	Sandra Towne	City of Vancouver
	Patrick Sweeney (alternate)	
11.	Steve Kountz (PBPS)	City of Portland
12.	Don Odermott	City of Hillsboro
	Gregg Snyder (alternate)	
13.	Nick Fortey	Federal Highway Administration
14.	Jana Jarvis	Oregon Trucking Association; Portland Freight
		Committee (Trucking)
15.	William Burgel	Burgel Rail Group; Portland Freight Committee
		(Railroads)
16.	Pia Welch	FedEx Express; Portland Freight Committee (Air)
17.	Jerry Grossnickle	Bernert Barge Lines; Portland Freight Committee
		(Marine/River)
18.	Lynda David	Regional Transportation Council
19.	Jim Hagar	Port of Vancouver
20.	Raihana Ansary	Portland Business Alliance
21.	Brendon Haggerty	Multnomah County - Public Health
22.	Kathleen Lee	Greater Portland Inc., Business Development Manager
23.	Carly Ritter	NW Region Government Affairs Manager
24.	Gary Cardwell	NW Container Service, Divisional Vice President
25.	Todd Juhasz	City of Beaverton
26.	Joel Much	Sunlight Supply (Vancouver, Wa.)



Transportation	Eauity	/ Work Group	aso	of 1/17/17
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	Name	Affiliation
1.	Grace Cho	Metro lead
2.	Scotty Ellis	Metro Diversity Equity Inclusion Program
3.	Jake Warr	TriMet
4.	Zan Gibbs	City of Portland
	April Bertelsen (alternate)	
5.	Karen Savage	Washington County
	Erin Wardell (alternate)	
6.	Jon Holan	City of Forest Grove
7.	Dan Rutzick	City of Hillsboro
	Gregg Snyder (alternate)	
8.	Jay Higgins	City of Gresham
9.	Jessica Berry	Multnomah County - Planning
10.	Steve Williams	Clackamas County
11.	Nancy Kraushaar	City of Wilsonville/Cities of Clackamas County
12.	Heidi Guenin	GridWorks/Community Member
13.	Aaron Golub	Portland State University
14.	Kay Durtschi	Community Member
15.	Corky Collier	Columbia Corridor Business Association
16.	Duncan Hwang	Asian Pacific American Network of Oregon (APANO)
17.	Jared Franz	Community member
18.	Terra Lingley	Oregon Department of Transportation
19.	Cora Potter	Ride Connection - Paratransit transit provider
20.	Noel Mickelberry	Oregon Walks
21.	Kari Schlosshauer	National Safe Routes to School Partnership
22.	Sarah Armitage/Stephanie Caldera	Oregon Department of Environmental Quality
23.	Eddie Hill	Ground Work
24.	Nicole Phillips	OPAL/Bus Riders Unite
25.	Brendon Haggerty/Andrea Hamberg	Multnomah County - Public Health
26.	Steven Nakana	Port of Portland



Finance Work Group | as of 1/17/17

	Name	Affiliation
1.	Ken Lobeck	Metro lead
2.	Ted Leybold	Metro
3.	Jamie Snook	Metro
4.	Katherine Kelly	City of Gresham
5.	Richard Blackmun	City Of Forest Grove
6.	Nancy Young	TriMet
	Eric Hesse (alternate)	
7.	Don Odermott	City of Hillsboro
	Tina Bailey (alternate)	
8.	Chris Deffebach	Washington County
	Steve Kelley (alternate)	
9.	Nancy Kraushaar	City of Wilsonville
10.	Mark Lear	City of Portland
	Ken Lee (alternate)	
11.	Karen Buehrig	Clackamas County
12.	Kelly Brooks	Oregon Department of Transportation
	Talena Adams (alternate)	
13.	Joanna Valencia	Multnomah County
	Jessica Berry (alternate)	
14.	John Lewis	City of Oregon City
15.	Jaimie Lorenzini	City of Happy Valley

Performance Work Group | as of 1/17/17

	Name	Affiliation
1.	John Mermin	Metro lead
2.	Abbott Flatt	Clackamas County
3.	Bill Holstrom	Department of Land Conservation and Development
4.	Jessica Berry	Multnomah County
5.	Dan Riordan	City of Forest Grove
6.	Jay Higgins	City of Gresham
7.	Don Odermott	City of Hillsboro
	Christina Fera-Thomas (alternate)	
8.	Lidwien Rahman	Oregon Department of Transportation
9.	Phil Healy	Port of Portland
10.	Judith Gray	City of Portland
	Peter Hurley (Alternate)	
11.	Lynda David	Southwest Washington RTC
12.	Eric Hesse	TriMet
13.	Steve Kelley	Washington County
	Erin Wardell (Alternate)	
14.	Steve Adams	City of Wilsonville
15.	Karla Kingsley	Kittelson & Associates Inc.
16.	Chris Rall	Transportation 4 America
17.	Kelly Rodgers	Confluence Planning
18.	Todd Juhasz	City of Beaverton



Safety Work Group | as of 1/17/17

	Name	Affiliation
1.	Lake McTighe	Metro lead
2.	Anthony Buczek	Metro
3.	Chris Strong	City of Gresham
4.	Clay Veka	City of Portland
	Zef Wagner/Dana Dickman (alternate)	
5.	Jeff Owen	TriMet
6.	Dyami Valentine	Washington County
	Stacy Shetler (alternate)	
7.	Mike Ward	City of Wilsonville
8.	Kari Schlosshauer	National Safe Routes to School
9.	Joe Marek	Clackamas County
10.	Aszita Mansor	Multnomah County – Planning and Engineering
11.	Becky Bodonyi	Multnomah County – Public Health
12.	Katherine Burns	Oregon Department of Transportation
13.	Tegan Enloe	City of Hillsboro
14.	Luke Pelz	City of Beaverton
	Stacy Revay (alternate)	
15.	Amanda Owings	City of Lake Oswego
16.	Noel Mickelberry	Oregon Walks
17.	Nick Fortey	Federal Highway Administration
18.	Stephanie Noll	Street Trust
19.	Lidwien Rahman	ODOT Region 1

Policy Actions Work Group | as of 1/17/17

	Name	Affiliation
1.	Tim O'Brien	Metro lead
2.	Eric Hesse	TriMet
3.	Denny Egner	City of Milwaukie
4.	Jeannine Rustad	Tualatin Hills Parks and Recreation District
5.	Judith Gray	City of Portland
	Peter Hurley (alternate)	
6.	Chris Deffebach	Washington County
7.	Jon Holan	City of Forest Grove
8.	Laura Weigel	City of Hillsboro
9.	Katherine Kelly	City of Gresham
10.	Miranda Bateschell	City of Wilsonville
11.	Karen Buehrig	Clackamas County
	Steve Williams (alternate)	
12.	Lidwien Rahman	Oregon Department of Transportation
13.	Joanna Valencia	Multnomah County – Planning
14.	Jae Douglas	Multnomah County – Public Health
15.	Zoe Monahan	City of Tualatin
16.	Jaimie Lorenzini	City of Happy Valley
17.	Julia Hajduk	City of Sherwood
18.	Luke Pelz	City of Beaverton
19.	Darci Rudzinski	Angelo Planning Group



Design Work Group | as of 1/17/17

	Name	Affiliation
1.	Lake McTighe	Metro lead
2.	Anthony Buczek	Metro
3.	Robert Spurlock	Metro
4.	Chris Strong	City of Gresham
5.	Denver Igarta (planning)	City of Portland
	Scott Baston (engineering)	
	Zef Wagner (alternate)	
6.	Jeff Owen	TriMet
7.	Dyami Valentine	Washington County
	Rob Saxton (alternate)	
8.	James Reitz	City of Forest Grove
	Richard Blackmun (alternate)	
9.	Jeannine Rustad	Tualatin Hills Parks and Recreation District
10.	Lori Mastrantonio Meuser (planning)	Clackamas County
	Rick Nys (engineering)	
11.	Carol Chesarek	Community member
12.	Stephanie Noll	Street Trust
13.	Zach Weigel	City of Wilsonville
14.	Andy Jeffrey	Oregon Department of Transportation
15.	Ryan Guy Hashagen	Better Blocks PDX
16.	Brendon Haggerty	Multnomah County – Public Health
17.	Bob Galati	City of Sherwood
	Julia Hajduk (alternate)	
18.	John Boren	City of Hillsboro
19.	Allan Schmidt	Portland Parks and Recreation
20.	Mike Houck	Urban Greenspaces Institute
21.	Kathryn Doherty-Chapman	Oregon Walks
22.	Nico Larco	Sustainable Cities Initiative, University of Oregon
23.	Aszita Mansor	Multnomah County – Planning and Engineering
24.		Clean Water Services
25.		Portland Bureau of Environmental Services

Italics means the member is unconfirmed or tentative to date.

Meeting minutes



Meeting:RTP Freight work group meetingDate/time:Tuesday, Sept. 27, 2016/ 8-10 a.m.Place:Metro Regional Center Council ChambersPurpose:Phase 3: Regional freight vision, policies and needs – April 2016 to February
2017. Update freight vision and supporting policies and tools, update freight needs,
update evaluation framework.

Committee Attendees

William Burgel Mike Coleman **Tony Coleman** Kate Dreyfus Nicholas Fortey Jerry Grossnickle **Brendon Haggerty Robert Hillier Jana Jarvis** Todd Juhasz Steve Kountz Kate McQuillan Zoe Monahan Don Odermott Lidwien Rahman Pia Welch Erin Wardell Steve Williams

Metro Attendees

Tim Collins, Chair Cindy Pederson Jessica Martin Marie Miller Affiliation

Burgel Rail Group Port of Portland **Oregon Department of Transportation** City of Gresham Federal Highway Administration **Bernert Barge Lines** Multnomah County Health Department **City of Portland Oregon Trucking Association** City of Beaverton **City of Portland** Multnomah County City of Tualatin City of Hillsboro **Oregon Department of Transportation** FedEx Washington County **Clackamas County**

Senior Transportation Planner Principal Researcher & Modeler Administrative Supervisor Administrative Specialist

Welcome and Introductions

Tim Collins welcomed committee members to the meeting. An overview of the agenda was given. Additional handouts were noted

- Regional Freight Network Map
- List of priority freight needs by mode
- Buffer and Modified Planning Time Index

Review Regional Priority Freight Needs

Following the May 23, 2016 RTP Freight work group meeting, information has been gathered on freight needs by various modes. Discussion was held on concerns to address efficiency, safety and travel time with freight in the region, with ideas for options and improvements.

- Congestion on I-5 North continues to spread over more hours per day
- Commodities traveling from Washington Co. strain the current infrastructure

- Increase truck travel around the Rose Quarter and over the bridge on I-5 North
- Freight deliveries, when delayed, are being picked up by flight deliveries
- Rail crossings remain unsafe, particularly in highly used pedestrian and vehicle areas
- The \$8.2 million North Portland junction improvements should help significantly
- Increase in passenger trains, as well as industrial
- The Kenton line along Sandy Blvd. with rail line study is in the works
- Union Pacific RR would benefit from higher speeds in the region, the Steel Bridge, in particular
- Air freight service at the Hillsboro Airport possible or needed?
- Congestion to rail freight facility on Westside
- High water levels impede barge access under bridges with freight and safety

Tim Collins reviewed the current list of priority freight needs and current restraints to freight movement identified by the work group. Comments on what might be added include:

- Identify the needs, not the projects in the list
- Define "Bottleneck" and be consistent with ODOT's definition.
- Issues of livability in the state highway system are not addressed
- Asking for a percentage better clarifies the need, and measures size/scope and reliability
- Freight oriented development multiple access needs to be clustered, freight districts, and demands for freight facilities
- Marine issues with deepening channel (Hayden Island)
- The congestion on Highway 217 & Highway 26 and Cornelius Pass are not included.
- Reliable measurements for recording peak freight travel time
- Lack of information from east Multnomah County regarding freight movement
- Impact of completion of the east Multnomah County arterial roadway access projects and grid work
- Improvements are needed to the Willamette Falls Locks to allow river freight movement that would get some trucks off the highway coming into the region.
- Jana Jarvis will send a list of additional truck travel needs.

Committee members provided news and input:

- There are statewide legislative concerns, with the importance of "fix Portland first". There is a higher demand for freight mobility and scheduling needs. Need to have a priority list and make visible progress, on network throughout the Portland region. Costs need to be matched to projects; applications for funds need to be competitive.
- The Port of Portland is involved with freight issues at regional airports, business areas and other properties. We need to stay ahead of plans.
- Tualatin will benefit from transit plans, including freight projects that lighten traffic congestion.
- Damascus needs to be part of the Regional Freight Network map.
- Regarding the map, topography and geography challenges to transportation challenges are not shown.
- Connect the process: Rail to barge. Barge to trucking. Trucking to air service. Developed view of entire freight system helps evaluate and improve systems in high traffic areas.

Review 2018 RTP Regional Freight Performance Measures and potential measures for project prioritization

Tim Collins reminded the committee that the only RTP Performance Target for freight currently in the 2014 RTP is "by 2040, reduce vehicle hours of delay per truck trip by 10 percent compared to 2010". The committee discussed other proposed System Evaluation Measures.

Total truck delay on the regional freight network from 10 a.m. to 4 p.m. does not capture air travel transfer times. Should the time be extended to 6 p.m.? This measure keeps 4 - 6 PM and the PM peak hours. Pia Welch suggested including truck delay between 6 - 7 PM due to this being a key truck delivery period.

The current measurement of accessibility lists number and cost of freight projects on the regional freight network that improve accessibility to facilities. It fails to measure the movement of freight in and out of the region, off major systems, into other modes/facilities of freight travel. Federal levels focus on speed of delivery, rather than delay. Accessibility needs to measure both systems. Measuring one point of the system may focus on access locations and issues. Reliability should be measured as speed or delay on the whole system.

Forecast measurements to accommodate long-range and mid-range growth expected. Measuring various freight systems expected in the future will provide better planning in the region. Jana Jarvis suggested using a freight systems approach.

Rail travel operates and measures travel times 24 hours/day. Freight trains are staged outside the region for scheduling. We should be able to get reliability for rail travel times too. Reaching out for information with agencies and other freight travel modes through the region can better forecast needs.

There is a need to measure tangible projects with real travel time. Match these measurements with funding. Peak hours of congestion are spreading in the region. Intermodal measures give the opportunity to show outside benefits, focusing less on broad measurements, but level of regular freight plans with specific results and outcomes.

Freight demand has been increasing incrementally. The lack of investment with this is a great concern. Freight measures need to show the economic value to the region. Accessibility may not be an acceptable measure at the regional level.

Gaining time may be of more interest to measure than accessibility. The Port of Portland has future projected data on air freight forecasts. Accessibility may be measured by more localized means, with the last mile interconnection different than the state systems. Suggestion was to keep the accessibility measure simple. Maybe use travel time on the key (last mile) intermodal connector roadways. This could be a monitoring measure for the RTP at the Mobility Corridor level.

Ideas were shared on trends and logistics to better measure and monitor freight transportation:

- Develop smart phone collection data for 'real-time' freight travel times in congestion areas
- Infrastructure focus with the planning process
- Make policy changes easy to understand; known amount of policy changes to incorporate in the planning process
- Monitor GPS data on a regular basis, processing speed factors with costs, weather factors and regulations.

- Measure impacts within the whole system, including physical restraints, like rail crossings
- Metro is the guardian of the system. Look at the whole system; operating hours, freight traffic added to the system, housing on truck routes, shifts in population by area and regulations.
- Measures should identify needs, not projects. Use system measurements, including maps.
- Keep it simple. Policy and technology changes can help drive projects. Last mile measurements are useful.
- Colors on the Regional Freight Network Map: Can they become interactive? Geographic related? Other committees working on this? Goal of measures is to help map out bottlenecks/congestion. Utilize real-time map for increasing reliability.
- Rail side of freight has a mapping system in place that is very reliable.

Tim told the group that currently there are no monitoring measures for freight. The freight goal is to reduce fuel emissions with cleaner, new diesel truck engines with DEQ incentives. Focus on more conversions that monitor results with freight travel, matched to Federal requirements. The city of Portland has information about measuring fuel emissions with EPA/DEQ data and the percentage changes based on current regulations.

Tim Collins introduced a new RTP regional freight performance measure for determining how reliable the Main Roadway Routes on regional freight network are, 'Buffer Index and Modified Planning Time Index'. It was noted that the Index is the same one used in ODOT's Freight Highway Bottlenecks List Project to measure freight reliability on the Oregon State Highway System.

Comments on the Index:

- It assumes normal distribution, where variations in peak time could vary higher in travel time.
- Data comes from Metro and State Highway Systems. Certain projection data may not be known now to use this measure.

Next steps

More compilations of data for presentations and reports will be gathered to finalize the Freight Performance Measures. Additional Regional work group meeting will be needed in early November. A Doodle Poll will be sent to committee members asking for availability for a meeting during the first two weeks of November.

Adjourn

There being no further business, Chair Tim Collins adjourned the meeting at 10 a.m.

Respectfully submitted, Marie Miller

Attachments to the minutes:

- 1. Agenda
- 2. 2018 RTP Regional Freight Performance Measures Memo
- 3. Draft Performance Measures Scoping Report (April 2016)
- 4. Regional Freight Network Map
- 5. List of Priority Freight Needs by Mode
- 6. Buffer and Modified Planning Time Index

09/27/2016 – 2018 RTP Freight work group meeting minutes

2018 REGIONAL TRANSPORTATION PLAN UPDATE RTP Performance Work Group - Meeting # 5

Date:October 14, 2016Time:9am-noon.Place:Metro Regional Center, Room 401
600 NE Grand Avenue, Portland, OR 97232



Performance Work Group Meeting #5 October 14, 2016, 9am - noon Metro Regional Center, Room 401

Committee Members Present:

Name	Affiliation
Joanna Valencia	Multnomah County
Phil Healy	Port of Portland
Don Odermott	Hillsboro
Abbot Flatt	Clackamas County
Eric Hesse	TriMet
Karla Kingsley	Kittelson & Associates
Bill Holstrom	Oregon Dept. of Land Conservation & Development
Steve Kelley	Washington County
Peter Hurley	Portland
Lidwien Rahman	Oregon Department of Transportation
Chris Rall	Transportation 4 America
Kate Dreyfus	Gresham

Metro Staff Present

John Mermin Kim Ellis Peter Bosa Lake McTighe Grace Cho Tim Collins

Welcome, introductions and partner updates

Work Group members and other attendees introduced themselves. Work Group members shared partner updates.

A few members attended a recent transportation symposium at PSU and would to incorporate some of the approaches they learned into our work, especially California's experience shifting from LOS to VMT

Review Agenda & Brief update on RTP

Kim Ellis previewed the agenda and also shared a recap of the 9/23 Regional Leadership Forum and a preview of the 12/2 forum. The 12/2 forum will be similar to the April forum (small group discussion). Its focus will be funding – understanding our reality as well as the possibility of a regional funding measure.

Discuss recommended refinements to 2018 RTP System evaluation measures

John Mermin reiterated the purpose of this meeting is to finalize recommendations that will be discussed at TPAC at October 28th. Staff will document for TPAC any issues where is not agreement between varying workgroups or when a measure is still under development.

1. Climate Change

The group was fine with the recommendation of not changing this system evaluation measure. The state requires it. Next year when the group discusses target setting, we'll make sure we pick something that is consistent with the statewide target

2. Vehicle Travel and 3) Bicycle travel

The group recommended this measure be combined into a "Travel" measure which would include: Bike miles traveled Pedestrian miles traveled Auto miles traveled Freight miles traveled Personal miles traveled per VMT.

A member noted that we need to continue to note the importance of the VMT measure and recommended organizing the measures into 1)primary 2)secondary and note any that are state or federally mandated.

A member noted that one of our principles is to simplify the measures, so any time we're considering adding a new measure that we should be sure it's relevant to our RTP goals.

4. Motor Vehicle & Transit Travel Times

The group recommends refine and rename to "Multimodal travel" times and include bicycle and freight times in addition to auto and transit for each mobility corridor.

Follow up: Metro staff will bring back a proposal to review that includes the origins/destinations (including at least one pair matching up with each mobility corridor). There will likely also be some important combos for biking or freight that don't match up with the mobility corridors.

5. Trail Accessibility

The group recommends refining and renaming: "Access to Bicycle and Pedestrian Parkways – Number and percent of households within ½ mile of a regional bicycle or pedestrian Parkway." Washington County suggested that there be some refinement of the ATP/RTP maps of what routes are designated parkways.

6. Mode Share

The group recommends refining and renaming "Active transportation and transit mode share" and evaluating regionwide Non-Driving mode shares for the Central City, Regional Centers, and mobility corridors. A member requested an analysis of the urban portion of Washington County. Metro will confer with its modeling staff regarding reporting mode share at a sub-regional level and will report back at the next meeting.

8. Congestion & 9. Interim Regional Mobility Policy

This measure is difficult since there are new federal regulations relating to congestion measurement that are not yet finalized. Metro and ODOT discussions are underway regarding updates to regional and state congestion measures and the Interim Regional mobility policy.

7. Habitat Impact

The group recommends testing this measure and adding contextual language to describe the goals of it better. Staff will note that this measure is tied to federal requirement to consult with resource agencies as part of an RTP Update.

10. Basic Infrastructure

Lots of discussion on the importance of connectivity and completeness.

A member suggested looking at all of the access measures together as a suite, being sure to address completeness, route directness/connectivity, orgins & destination.

There is a challenge to truly get to "completeness" with currently available data, since not all jurisdictions have pedestrian crossing, ADA compliance of sidewalks.

Metro staff will look at all the access measures and strategize how best to package them for TPAC.

11. Clean Air

The group recommended refining the air pollutants reported. A member requested looking at subregions e.g. Tualatin Valley gets unique air quality compare with the east side of the Tualatin mountains. Metro staff will inquire on whether mapping this at a sub regional level is possible and noted that this would be a DEQ led activity.

12. Affordability

The group recommends refining the methodology. Metro staff will explore a refined methodology.

13. Access to Daily Needs & 14. Access to Jobs

These measures were noted by members as being extremely important. The research center director has prioritized these to be improved in the long-term. The question is how far we can get now, and then improve them over time.

A member noted a "sugar tool" that has its pros and cons. Pro – it's realistic to how people think of access. Con – you can't explain exactly what's in it.

Metro staff will work with the research center staff to further develop these measures

15. Transit Productivity

The group recommended keeping this measure, and collapsing into one heading with #15 (transit productivity) to simplify. A member requested adding total ridership as well.

16. Transit Revenue Hours

This was recommended in the Climate Smart Strategy.

17. Transit Coverage

This was recommended to be a new measure, but that will be replaced by access measures eventually.

18. Access to Transit

This was recommended to be added and included as a subset of #10 Access to travel options.

<u>19. Safety</u> – fatal & severe crashes for ped, bike, motorists

Recommended to be moved to RTP monitoring measures, since it is not a system evaluation measure.

<u>20. Safety</u> - % of number and cost of safety projects in the RTP investment packages regionwide, and the % of safety projects in areas with historically underrepresented communities.

The definition of a safety project has been updated since the last work group meeting. The reference to Safe routes to school and High-injury network map have been removed:

"Safety projects: infrastructure projects with the primary intent to address a safety issue, and allocate a majority of the project cost to a documented safety countermeasure(s) to address a specific documented risk, or improve safety for vulnerable users, including people walking and bicycling, older adults and youth.

Example safety countermeasures include, but are not limited to, FHWA's nine proven safety countermeasures: road diets, medians and pedestrian crossing islands, pedestrian hybrid beacons, roundabouts, access management, retroreflective backplates, safety edge, enhanced curve delineation, and rumble strips."

This was recommended to be added. The safety workgroup will finalize its recommendation at its 10/20 meeting.

21. Safety – Exposure to crash risk through the sum of non-interstate VMT per capita in TAZs for RTP Investment packages regionwide and in historically underrepresented communities.

It was recommended to use "non-throughway" instead of "non-interstate". Metro staff will bring a map to clarify this. e.g. to clarify that Hwy217 and US26 are excluded.

A correlation between VMT and crashes has been found by Metro staff.

There is general support to continue to explore this measure and use it for an initial assessment.

#22 Freight reliability

The group recommends refining and renaming to "Freight tuck delay". There may be a possibility that the freight travel times within mobility corridors (measure #4) will make #25 (Freight accessibility) unnecessary

Other freight measures that are still under development will be brought back to this group at the next meeting.

Next Steps

- Discuss recommendations at 10/28 TPAC
- Early December work group meeting. Date TBD
- 2017 meetings to discuss target setting and monitoring

600 NE Grand Ave

503-797-1797 fax

Metro | Meeting Summary

Safety Work Group Meeting Summary (Draft until approved by work group) Meeting #3 October 20, 2016, 9 to 11 AM Metro Regional Center, Room 501

ATTENDED (Work Group): Becky Bodoyni, Multnomah County Health Luke Pelz, Beaverton Anthony Buczek, Metro Tegan Enloe, Hillsboro Nick Fortey, FHWA Tom Kloster, Metro Lake McTighe, Metro Jeff Owen, TriMet Lidwien Rahman, (alternate for ODOT/Oregon Walks) Katherine Burns, ODOT Kari Schlosshauer, SRTS National Partnership Chris Strong, Gresham Aszita Mansor, Multnomah County Dyami Valentine, Washington County Stacy Revay, Beaverton Noel Mickelberry, Oregon Walks Dana Dickman, Portland Bureau of Transportation Eileen Cunningham, Multnomah County Rob Sadowsky, BTA

ATTENDED (Interested Persons/Metro Staff/ Invited Guests): Clint Chiavarini, Metro Cindy Pederson, Metro Jamie Snook, Metro Mike Serritella, Metro

UNABLE TO ATTEND: Joe Marek, Clackamas County Stacy Shetler, Washington County Mike Ward, Wilsonville Clay Veka, Portland Amanda Owings, Lake Oswego

Follow-up actions

- ✓ Investigate Metro developing a safety crash model (Metro is pursuing this but it will not be available for the 2018 update)
- ✓ Develop annual rolling targets for bicyclists and pedestrians
- ✓ Provide definition of proven safety counter measures
- Look at removing B, C and property damage only crashes from the High Injury Corridors analyses – areas with high levels of bicycling and walking, where a high number of minor crashes are occurring are showing up (Metro reviewed and has determined to remove those crashes from the analysis)

Welcome & introductions

Tom Kloster, meeting chair, welcomed the workgroup.

RTP update

Lake McTighe, safety work group lead, provided an update of the RTP process and the Regional Leadership Forums. She also recapped the purpose of the work group and the timeline for the update of the Regional Transportation Safety Plan. She highlighted the progress made by the group to date, referring to the first part of the meeting memo.

Safety System Evaluation Performance Measure Discussion

- Lake provided an overview of the relationship of system evaluation measures to monitoring measures and targets in the RTP.
- She noted that the region has never had system evaluation measures for safety.
- She reminded the work group that they had reviewed the draft safety evaluation measures at the July 26 meeting, and that the RTP performance measures work group had provided feedback at the Sept. 12 and Oct. 14 meetings. The recommended measures under discussion reflect the input from the work groups.

The work group discussed the **safety infrastructure investments system evaluation measure and the definition of a transportation safety project.** The discussion centered on how to incorporate safety and equity considerations priorities when developing project proposals. The work group agreed to moving forward with the definition of a safety project and the evaluation measure.

- Noel (Oregon Walks) Clarifying question about defining Historically Underrepresented Communities
- Nick (FHWA) Safety outcomes from more general projects? How are positive externalities considered within all transportation projects? Safety as a primary interest vs. safety as a general principal in transportation planning.
- Chris (Gresham) Question regarding merging criteria around regional balance and Historically Underrepresented Communities – How are these different elements being measured?
- Tegan (Hillsboro) –Concern about including Historically Underrepresented Communities and equity lens in identifying where safety investments are going and potential prioritization; equity should be considered separately not as part of system evaluation measure, safety investments should be made regardless of race, income, etc.
- Should "proven countermeasures" be defined?

• Chris – Some jurisdictions do not call out 'safety projects' – so it may be challenging to identify them for the RTP

The work group discussed the **VMT exposure system evaluation measure.** The discussion focused on how VMT Exposure would be measured – particularly on how it would relate to specific local issues affecting VMT (new development, etc.) as well as how the data from this system evaluation measure would be used. The work group agreed to moving forward with continuing to test and analyze the evaluation measure.

- Kari (Safe Routes to School) Have you thought about how outputs from the evaluation measure will impact actions, implementation?
- Lake we will share information with local jurisdictions so they can use it to help guide project refinement for the RTP
- Chris Is this used for tracking progress seems to be more of a monitoring measure. How would the information gained from this system evaluation be used? Would this be used to judge projects as "good" or "bad"?
- Lake it is just one tool to understand what is happening. It is a system measure, not a project measure. But if there was higher rise in VMT in one area compared to others it would be helpful to dig deeper and try to understand what is happening.
- Tom Kloster Need to align functional class with highway's excluded from VMT exposure
- Dyami (Washington County) May be problematic to use 'per-capita' measures, some high density areas will not be flagged should this be measured by physical space/area? How do we address the issue of VMT created by through-traffic?
- Kari Wouldn't highways be helpful in looking at public health related outcomes issues of environmental justice (air quality)?
- Grace In our equity work group, we are looking at exposures impacts from pollution (this is separate from VMT Exposure; VMT is being looked at as it relates to "Safety" and as it related to "Air Quality"
- Nick How can we make sure that the system doesn't flag/miss areas based on unique use/design characteristics or development patterns?

Regional High Injury Corridors Discussion

Lake provided a re-cap

- Refer to commonly asked questions and GIS methodology hand outs
- HIC is available on-line
- Why Metro developed recommended as follow up action in 2014 RTP, provides a consistent approach across the region, has an urban focus and focuses on fatal and severe crashes.
- Methods described in FAQ had several goals, including narrowing down to subset of streets to support planning and prioritization
- Aug 23, additional safety work group meeting to walk through HICs
- Updated the HICs to only include crashes on the regional transportation network. Captures 60% of severe crashes, which occur on 6% of all streets, and 23% of the regional transportation network
- Overlap with HICs identified by other jurisdictions completely overlaps with Washington County's High Crash Corridors, with some distinctions (identifies Cornell

from Main to Butler, not the entire length; only segments of Hwy 217 are indentified, not the entire length)

• There was discussion about removing the bike and pedestrian weights for non-severe crashes

Next steps

- Next meeting will be January 24
- At that meeting the Work Group will finalize input on performance targets and measures and the high injury corridors
- Safety updates to Metro technical and policy advisory committees will take place in late January and February

Meeting minutes



Meeting:RTP Freight Work Group Meeting #4Date/time:Tuesday, November 8, 2016 | 8-10 a.m.Place:Metro Regional Center, Council ChamberPurpose:Phase 3: Regional freight vision, policies and needs – April 2016 to February
2017. Update freight vision and supporting policies and tools, update freight needs,
update evaluation framework.

Affiliation

Committee Attendees

William Burgel Gary Cardwell **Tony Coleman** Lynda David Kate Dreyfus **Brendon Haggerty** Phil Healy **Robert Hillier** Todd Juhasz Steve Kountz Kate McQuillan Joel Much Gregg Snyder Patrick Sweeney Pia Welch Steve Williams

Interested Party Attendees

Corky Collier Jordan Vance

Metro Staff

Tim Collins, Chair Cindy Pederson Lake McTighe Jamie Snook Marie Miller

Burgel Rail Group Northwest Containers Services, Inc. Oregon Department of Transportation **RTC**, Southwest Washington City of Gresham Multnomah County Port of Portland City of Portland City of Beaverton City of Portland Multnomah County Sunlight Supply, Inc. City of Hillsboro City of Vancouver, WA FedEx Clackamas County

Columbia Corridor Association City of Wilsonville

Senior Transportation Planner Principal Researcher & Modeler Senior Transportation Planner Principal Transportation Planner Administrative Specialist

Welcome and Introductions

Tim Collins welcomed committee members to the meeting, beginning at 8:05 a.m. Minutes from September 27, 2016 were presented for review. No additional comments or additions were noted.

Regional Freight Challenges and Opportunities

Discussion was held on the memo: 2018 RTP Regional Freight Challenges and Opportunities, dated Nov. 7, 2016. The work group was reminded of their task in providing technical input and recommendations to Metro staff on updating the Regional Freight Plan. The work group roster was reviewed for accuracy.

Tim Collins asked if the plan could be framed as challenges with strategies, as opposed to a laundry list of projects. Could long-term and short-term investments be identified? Constraints and challenges on

- Roadways and highways
- On and around Rail Lines
- Around Air Freight
- Around Energy Pipelines
- Marine/River Traffic

A correction was made on page 4 of the memo, first line to read "The US Post Office is in the process of moving onto Air Trans Way near PDX."

Recommended changes to 2018 RTP Freight System Evaluation Measures

Discussion was held on Attachment 1: Summary of Recommended changes to RTP System Evaluation Measures, dated Nov. 4, 2016. The focus on the discussion was highlighted in section 11: Access to industry and Freight Intermodal Facilities, section 12: Multi-modal Travel Times, and section 13: Congestion.

The work group agreed that measurement of freight delay in the transportation system was important, with desired outcomes showing cost of delays, tracking bottlenecks and congestion to form improvements to the system, and optional systems for freight travel.

Members agreed that measuring the quantity of freight with cost of delays was an important element for tracking. National and international freight moves daily through the Metro area, with delays on all modes of transportation through the region costing companies dollars. A tracking system of this data helps evaluate improved freight movement for better cost savings and faster travel through the region.

Possible improvements for measuring freight travel for better efficiency and cost savings to recommend to RTP System Evaluation Measures:

- GPS Tracking Systems
- Incorporation of measurement tool NCA 089, mentioned by Todd Juhasz , Mitigating Freight Bottlenecks
- Quantify early and overnight freight activity; deliveries are not always available in expended hours of operations
- Targeting a realistic goal for reducing truck delays in the RTP

It was said we could not build our way out of bottlenecks or delays, but we can address the reliable measurements to address the issue. We need some type of economic measure that links investment to jobs. In discussion of congestion, the current system evaluation measure of travel times is the standard way of looking at the system. Members felt this may not be the most efficient and correct way of monitoring the system.

Members want RTP Freight plan to make the connection to having efficient, productive transportation system for moving goods because it costs consumers. This creates a message that will result in legislation at the State level for improved goods movement, reducing bottlenecks through the region, and lower emissions for better air quality. Funding requests can be tied to cost and levels of emissions that aim to be lower and produce better environment and address safety issues as well.

Discussion was held on standard way of looking at the system, which may not be the easiest to monitor, with no money for reducing delays, even with identifying them. It was asked if we are measuring delays to other users besides trucks. Are we using the right time periods to measure congestion, with all freight movements? Congestion is persistent in many areas outside the peak hours. Vehicle delay per truck and the cost of freight delay needs to be evaluated throughout the day, not just during peak periods.

Do our current freight traffic maps reflect corridors that include industrial lands, truck interchanges, rail crossings, technology that measures real-time data (where Bluetooth readers in WA State have proven effective), automated systems to collect data, shift in business hours with freight pick up and deliveries, the persistence of key routes with little options for other routes to travel.

It was noted that the State Task Force on this issue identified the Portland area with heavy freight delay challenges that translated into jobs and benefits statewide. The state of Oregon needs to know that investment in freight bottlenecks means jobs. Metro can increase emphasis with research on this, with political leverage across the state to make a likely passage for change.

To address System Evaluation Measure #11 (Access to industry and freight intermodal facilities), there should be a way to assess acres of industrial land that are transportation constrained.

Patrick Sweeney suggested creating a hierarchy for freight corridors, where physical delivery works better when identified at each level. This would include (a) Freight movement on the interstate system, (b) Freight distribution between intermodal facilities, and (c) Deliveries and distribution of goods to retailers and other local facilities.

Further comments on measure #12 (Multi-modal Travel Times) included measuring volumes of freight (tonnage or value) could be a better way of linking the growth rate, and travel time. Infrastructure improvements at terminal sites, lane widths, weight and height restrictions, linking forecasts to volumes, and the cost of investment at facilities with freight are all elements to consider.

These new questions and discussion points lead to the need for a <u>subcommittee to meet, in mid-</u> <u>December</u>. Members are:

> Patrick Sweeney, City of Vancouver Todd Juhasz, City of Beaverton Steve Kountz, City of Portland Robert Hillier, City of Portland Phil Healy, Port of Portland Steve Williams, Clackamas County Erin Wardell, Washington County Steve Kelley, Washington County Gary Cardwell, Northwest Container Service Corky Collier, Columbia Corridor Association Tim Collins, Metro

Development of potential freight measures to inform near- and long-term investment priorities

Discussion was held on three potential freight measures that could be used to inform near and long-term investment priorities on the Regional Freight Network.

- Congestion Measure
- Reliability Measure
- Travel Time Measure on Key Intermodal Facilities

Rail travel has a more reliable tracking system for measuring congestion and travel time, but truck travel does not. The members felt the goals listed for minimum performance levels desired could not be reached and were unrealistic, and did not communicate how severe the problems are. Why set unachievable goals?

It was agreed that we first need to identify the problems with mapping and analysis, put this information in front of policy makers that show the impact to traffic, air quality, increasing jobs, safety and economy. Realistic measures need to be given with a good presentation for funding.

The New Reliability Index equation was discussed. Congestion and incident traffic was considered with the equation. General consensus was gained that travel time is hard to forecast; there was agreement to use ODOT's methodology in the Freight Highway Bottlenecks List Project to measure freight reliability.

Travel time measure on key intermodal facilities will be further discussed at the January 2017 meeting, with materials set to members prior to the meeting.

Next steps

- Doodle Poll will be sent to subcommittee members identified in this meeting. Selection of subcommittee meeting date and time identified, meeting notice sent to those members. Meeting expected mid-December.
- Review RTP freight projects for updated Regional Freight Plan; begin updating the Regional Freight Network map.
- 3. Next RTP Freight work group meeting in mid-January, 2017. Meeting notice will be sent to members in December.

Adjourn

There being no further business, Chair Tim Collins adjourned the meeting at 10 a.m.

Respectfully submitted, Marie Miller

Attachments to the minutes:

- 1. Agenda
- 2. Meeting minutes from Sept. 27, 2016 Regional Freight work group meeting
- 3. Regional Freight Challenges and Opportunities memo
- 4. Summary of Recommended changes to RTP System Evaluation Measures table
- 5. Potential freight measures to inform investment priorities memo
- 6. Interim Regional Mobility Policy Table 2.4
- 7. Regional Freight Network Map



2018 RTP Transportation Equity Work Group – Meeting #6 November 17, 2016 1 - 3 p.m. Metro Regional Center, Room 401

Committee Members	Affiliation	Attendance
Dan Rutzick	City of Hillsboro	Present
April Bertelsen	City of Portland – Transportation	Present
Aaron Golub	Portland State University	Present
Jake Warr	TriMet	Present
Steve Williams	Clackamas County	Present
Andrea Hamberg	Multnomah County Public Health	Present
Terra Lingley	ODOT	Present
Radcliff Dacanay	City of Portland - Planning	Present
Jessica Berry	Multnomah County	Present
Jay Higgins	City of Gresham	Present
Interested Parties		
Katie Selin	Portland State University	Present
Eric Hesse	TriMet	Present
Metro Staff		
Grace Cho	Metro	Present
Lake McTighe	Metro	Present
Cliff Higgins	Metro	Present
Jamie Snook	Metro	Present
Cindy Pederson	Metro	Present
Ted Leybold	Metro	Present

I. WELCOME, INTRODUCTIONS, AND PARTNER UPDATES

Cliff Higgins welcomed meeting attendees and walked through the agenda for the work group meeting. Following the notification about the agenda changes, he asked for a quick round of introductions and partner updates.

Mr. Higgins gave an update on a staff discussion regarding the use of the term, "historically underrepresented communities" as shorthand for noting collectively communities of color, lower-income communities, and limited English proficiency populations. He discussed how there has been comments from community members about the negative connotation of the term. Mr. Higgins outlined that Metro staff has proposed to transition from using the term "historically

underrepresented communities" to "historically marginalized communities" or to list the individual communities to address the community concerns. He asked the work group for feedback and thoughts on the proposal. The work group supported the terminology change and the identification of individual communities.

II. 2018 RTP TRANSPORTATION EQUITY SYSTEM EVALUATION MEASURES – METHOD DEVELOPMENT UPDATE

Ms. Cho provided a brief recap of where the work group had left off at its last meeting from September 29th. She discussed how the work group had given Metro staff input on key areas of the individual transportation equity system evaluation measures. She also reminded the work group they collectively gave Metro staff the green light to move forward with sharing the transportation equity system evaluation measures to other 2018 RTP work groups and technical committees (e.g. TPAC and MTAC). Ms. Cho mentioned since the September work group meeting, a lot of technical feedback had been received and Metro staff has been working on incorporating and trying to balance the feedback received. She told the work group the feedback from the transportation equity work group was prioritized when trying to balance the other feedback considerations.

In recognizing the transportation equity evaluation measures had been adjusted to reflect the feedback received. Ms. Cho provided a recap of the different adjustments. She started with the adjustments based on the feedback of the work group on the key assumption areas for the transportation equity analysis. Ms. Cho noted at the previous work group meeting the work group were interested in revisiting: 1) the geography and definition of lower-income communities; and 2) taking a more focused look at places in which there are higher concentrations of communities of color, lower-income populations, limited English proficiency populations, older adults, and youth. Ms. Cho displayed some maps which illustrated the Metro staff proposals taking into consideration both a new definition of lower-income communities and also a proposal for taking a more focused look at concentrations of communities of color, lower-income populations, older adults, and youth.

For further detail, she pointed to the work group to the attachments in the work group packet which outlines the feedback and the adjustments accordingly.

At the end of the assumptions presentation, Ms. Cho paused to take any questions.

Questions and Discussion Regarding Key Assumptions for the Transportation Equity Analysis Mr. Williams opened the discussion as to why certain limited English proficiency populations were not showing up in Clackamas County on the population maps. He noted there are language isolated populations in Clackamas County. Ms. Cho responded that in using the regional average (using a mean rather than a median as defining the average) the population numbers the relative concentration of a certain population may be high for that jurisdiction, but does not rise above the regional average. And in those cases, some places may not show up in the map. Ms. Cho noted those places are important for local jurisdictions to identify so the jurisdiction can look more closely at how its transportation investments are supporting the mobility needs of its underserved communities. Additionally, Mr. Williams asked why people with disabilities are not being evaluated as part of the transportation equity analysis.

Ms. Cho and Mr. Higgins both responded that there have been issues with locating reliable population data for people with disabilities. However, Ms. Cho noted there had been some interesting planning work done through TriMet's Coordinated Transportation Plan (CTP) and as part of the policy recommendations and refinements for the 2018 RTP, the CTP recommendations can come forward through the development of the policies. The work group can voice support and provide input to staff as to how members would like to see the CTP work integrated into the 2018 RTP.

Mr. Rutzik commented that the first assessment is still too broad as to how it is defining communities. He asked staff to look at increasing the threshold being used to define the geography of concentrated communities of older adults and youth. He mentioned mapping at 150% or 200% of the regional average to see where the breakpoints are for looking at areas with very high concentrations of older adults and youth.

Mr. Warr further commented that instead of using an arbitrary threshold such as 150% or 200% of the regional average for older adults and youth, potentially looking at a standard deviation above or those census tracts in the top 25 percentile of older adults or young persons. Mr. Warr advocated that older adults and youth be uncoupled in defining communities. Mr. Warr also suggested Metro staff conduct a third screening specifically looking at how the transportation investment program is addressing the mobility needs of older adults and young people. He felt that not including older adults and youth in the secondary screening proposal warranted looking more closely are areas with high concentrations of older adults and youth as a third screening assessment. Mr. Hesse supported Mr. Warr's points and elaborated that the wave of older populations in the future will have a significant impact to the transportation system.

Mr. Dacanay suggested that as part of the mapping work of communities, potentially showing where there are greater concentrations of different populations, to help illustrate that there are places which have above the regional average of older adults and youth, but also to recognize the places with a greater concentration of older adults and youth.

Due to needing to move on to other items on the agenda and in recognizing that several work group members were not in agreement with the staff approach to identifying areas within the region with a higher concentration of older adults and young people, Ms. Cho said staff will relook at the demographic work and the thresholds for determining areas with concentrated numbers of older adults and youth prior to the April work group meeting and will communicate to the work group the staff recommendation. Ms. Cho alluded the communication will likely take place through email.

<u>Questions and Discussion of Transportation Equity System Evaluation Measures</u> Following the discussion of the key assumptions, Mr. Higgins reminded the work group that an action was needed by the work group members at the meeting. The action being requested by is to allow Metro staff to finalize the draft transportation equity system evaluation measures and enter into a beta testing phase. Following the note from Mr. Higgins, he turned over the conversation to Ms. Cho.

Ms. Cho provided an overview of the adjustments and the status of the methodology development of the transportation equity system evaluation measures. Referring to the attachments, Ms. Cho noted how the individual system measures had changed according to the feedback. She also gave an update on two individual system evaluation measures which are receiving a greater overhaul based on the work group(s) and technical committee feedback received. She noted Metro staff has developed an approach for these measures, but they look different from what had been presented at the September meeting and the methodology has not been finalized. Lastly, Ms. Cho provided an update on the two transportation equity system evaluation measures in which Metro staff is determining whether or not they will move forward as part of the system evaluation of the 2018 RTP due to larger than expected technical methodology barriers to address and the resource capacity to undertake those issues as part of the 2018 RTP. Ms. Cho noted Metro staff is looking at different options for incorporating the two measures. Ms. Cho then reiterated the action she had been seeking from the work group and explained further the intention of wrapping up the technical discussion of the transportation equity system evaluation measures to allow staff to get to work and test how well the measures will work. She noted that in being able to test, Metro staff will be able to bring to the work group potential refinements and lessons learned.

Mr. Higgins asked Ms. Cho to clarify what "beta testing" means and what it would look like for the next four months. Ms. Cho explained that Metro staff will be utilizing a smaller batch of projects encompassed in the 2018-2021 MTIP to look at how well the transportation equity system evaluation measures work and how well it will be able to handle the scale of projects in the 2018 RTP.

Following her presentation, Ms. Cho opened up the transportation equity system evaluation measures for discussion. Work group comments focused on small technical details regarding the two measures unknown to-date to move forward in the system evaluation. A question emerged about the status of project evaluation as part of the 2018 RTP. Ms. Cho responded that policymaker direction has not been received as to whether that will be happening, but a decision is expected at some time in early 2017.

In general, the work group members were supportive in Metro staff moving forward in order to begin testing and learn from the results. The work group gave approval for Metro staff to finalize the methodology for the transportation equity system evaluation and to enter the beta testing phase throughout the winter and early spring 2017.

IV. 2018 RTP PERFORMANCE MANAGEMENT PROGRAM – OVERVIEW AND BRAINSTORM DISCUSSION

As the final item of the agenda item, Ms. Cho provided a brief presentation of the 2018 RTP performance management program. She described the three parts of the performance management program: 1) system performance evaluation, 2) performance targets, and 3) performance monitoring. Following, Ms. Cho discussed how for the past year, the work group had been focused on defining and refining the system performance evaluation with an equity focus. She explained in 2017, the work will shift as the work group will provide input to Metro staff on policy refinements. A key area of focus will be the performance targets and performance monitoring as both will be critical in setting policy direction for regional transportation planning activities and being accountable in making progress towards achieving policy outcomes (e.g. performance targets).

After...Ms. Cho asked the work group to look at an attachment within the work group packet which outlines the existing and any proposed refinements proposed to-date to the 2018 RTP performance management program. She noted the transportation equity work group's the....

In the limited amount of time available, brainstormed ideas to emerge included:

- Including enhanced transit corridor as part of the assessment and policy discussion in the 2018 RTP system evaluation in the accessibility measures.
 - o Consider reporting the enhanced transit corridors separately
- Consider the balance of realistic/achievable vs. aspirational performance targets.
 - Use baseline performance data to help inform and set performance targets.
 - Encourage policymakers to have an open dialogue of about the challenges and benefits of different types of targets (aspiration and realistic) and to have them provide the direction and balance.
 - An example discussed was the Vision Zero target being proposed by the 2018 RTP Safety work group.
 - Consider adding an equity lens across all the 2018 RTP performance targets in addition to those targets which speak to the priority outcomes of communities of color, lower-income populations, limited English proficiency populations, older adults, and youth.

Because of time, the brainstorming discussion was wrapped up early. Ms. Cho noted even in the short amount of time available, the outcomes of the discussion were helpful to staff and would help springboard the discussion of policy refinements in 2017. She also noted that she will incorporate and return to the work group with some policy refinements pertaining to supporting the mobility of people with disabilities, despite the transportation equity analysis not taking an explicit focus on people with disabilities.

V. QUESTIONS AND ANSWERS

Due to time constraints, Ms. Cho skipped the question and answer session and mentioned to the work group members that she would be available after the meeting for any further questions.

VI. <u>NEXT STEPS</u>

Ms. Cho noted that the next work group meeting will not be until April 6, 2017. Following, she walked through a preview of the material to be covered at the April work group meeting. She walked through the homework assignments for the work group. She asked between the work group meetings, for members to complete the following "homework" assignments:

- Report back to others in your agency working, constituents, and leadership working on the 2018 RTP on what was discussed at the work group meeting and bring any feedback.
- Continue to stay connected to the events and activities happening with the 2018 RTP. She encouraged attendance to the December 2nd regional leadership forum.
- Her final homework assignment to her work group was to get excited and get ready for the 2018 RTP policy discussions to begin taking place at the 2017 work group meetings.

Lastly, Ms. Cho thanked the work group members for all their hard work over the course of 2016. She reminded the work group how much they had accomplished to date and appreciated their commitment to supporting the transportation equity work.

VIII. ADJOURN

There being no further business or questions, Ms. Cho and Mr. Higgins adjourned the meeting at 3:00 p.m.

Meeting summary prepared by: Grace Cho, Transportation Equity Project Manager



2018 REGIONAL TRANSPORTATION PLAN UPDATE

RTP Performance Work Group - Meeting #6

Date: December 12, 2016 Time: 10am - noon Place: Metro Regional Center, Room 401

Committee Members Present:

Name Jessica Berry Phil Healy Christina Fera-Thomas Abbot Flatt Eric Hesse Karla Kingsley Bill Holstrom Steve Kelley Peter Hurley Lidwien Rahman Chris Rall Lynda David

Affiliation

Multnomah County Port of Portland Hillsboro Clackamas County TriMet Kittelson & Associates Oregon Dept. of Land Conservation & Development Washington County Portland Oregon Department of Transportation Transportation 4 America RTC

Metro Staff Present

John Mermin Tom Kloster Peter Bosa Lake McTighe Grace Cho Tim Collins Jamie Snook

I. Partner Updates

The Portland City Council has initial performance measures – city council will adopt on Dec 21st (VMT, Mode Share, Greenhouse Emissions). A second round of measures, including congestion will be released as a discussion draft in January.

A member inquired about the Portland speed limit signage and relationship with ODOT. The City is seeking additional flexibility for city owned facilities. Other local jurisdictions are interested as well, e.g. Wilsonville.

II. Review Agenda & Brief Update on RTP

Tom Kloster summarized the outcomes/goals of the third regional leadership forum. One takeaway was Portland Mayor-elect Wheeler urging regional leaders to be bigger and bolder when developing a package of projects then past efforts, and added that voters needed to hear a compelling, well-articulated vision. A workgroup member added another takeaway that a coalition needs to form around what a funding package could look like. The leader of this coalition is yet to be determined.

Tom added that this RTP needs to outline a group of investments that could provide the basis for a regional funding measure. A workgroup member posed the question regarding the relationship between the system evaluation measures we've been discussing and any project evaluation criteria that may be developed? Tom responded that's to be determined, but there will be a connection – Tyler Frisbee is leading up our efforts and has been discussing with electeds how they want to include performance measures in the evaluation criteria. Metro is exploring the process for how projects are submitted to the RTP – providing a clear filter for what comes into the plan. The goal is not to 'kill' projects, but to help improve projects and provide guidance/feedback.

III. Review Updated Goals and Measures Comparison Table

John Mermin framed the desired outcomes of the meeting: 1) provide updates on measures under development 2) finalize recommendations that will be discussed at TPAC on January 27. He reminded the group that although we are wrapping things up today, there will still be another chance to discuss measures next summer when we are reviewing the results of the evaluation of the updated RTP project list. Refinements may be needed based on what we learn by using the measures.

John then described the updated table displaying a crosswalk of the system evaluation measures and the RTP Goals. It has been reorganized around themes and simplified based on feedback from this workgroup, TPAC and MTAC.

John clarified that staff is still working on developing an affordability measure. The boxes (for which RTP goals it relates to) will be filled in if the measures goes forward.

A member suggested suggests that the dots should be dynamic to show the extent to which each of these measures aligns with the goal. e.g. solid, half-filled, empty

IV. Discuss Recommended Refinements to 2018 RTP System Evaluation Measures

Update on the RTP Freight system evaluation measures under development.

Tim Collins presented to the group and explained that the RTP Freight workgroup met on 11/12 and there will be a sub-committee of that workgroup meeting later today to further discuss the "access to industry and freight intermodal facilities" measure. They are trying to develop a new measure that looks at the extent that industrial land and freight intermodal facilities are "transportation constrained." They'd like to know where in our region (beside just state owned facilities) are constrained.

Regarding travel time periods of importance to freight, Tim shared that the workgroup has been discussing with freight operators to see when they're traveling and to set any congestion measures based on when they're using the system. For congestion (cost of delay) they'd be looking at the general delay at multiple hours and calculate the cost of delay by truck.

A member asked what is meant by "constrained" Tim clarified that "constrained" is the way the state defines a bottleneck based on (V/C), travel times and unreliability. We intend to identify the bottlenecks in the system and .the number of acres and facilities that are impacted.

Regarding reliability, Tim clarified that we can't yet project it into the future, but we can describe current conditions. It was noted by a workgroup member that in general, reliability is better to measure than hours of delay – and this point of view is consistent with the region's comments to USDOT on their draft congestion rules.

A workgroup member asserted that while there are issues with our inability to project reliability, that we should not let that get in the way of measuring it somehow. USDOT has stated that crashes and response to crashes is the leading cause of unreliability. We can manage that and if we measure reliability we can address it more directly. If we can look at what is causing unreliability, then we can address those directly.

Tim mentioned that the State was planning to measure present-day reliability for freight based on a measure in a statewide bottleneck study. He believes that it's trying to match the guidelines from USDOT. Tim is trying to tie this to the regional freight routes.

A workgroup member reminded us that we need to include reliability in our storytelling, even if we don't have an ability to forecast it. Another member offered that the group will get more comfortable once they can see which other measures (beyond system evaluation measures) get at the goals more broadly (e.g. showing how monitoring connects to project selection).

A member described that the freight industry is currently planning around those key bottlenecks on the state system. They plan shipments to avoid certain locations at certain times. A tool that would forecast the extent of time of congestion and was connected to reliability (is it a reliable bottleneck?) and safety (what's the frequency of crashes at this bottleneck?) would be valuable.

Regarding freight travel times, Tim mentioned that we need to make a professional judgment around what are the most essential routes to measure. We're really trying to measure the connection between the most important origins and destinations.

A workgroup member mentioned that the route shown through Gresham is not the locally preferred route (*Note – she clarified after the meeting that she was mistaken, she thought the route was showing 257th. The route shown is actually correct – 242n/Hogan to 238th*)

A member raised issues with the routes shown on the Westside and offered to help provide more relevant routes that match Washington county data regarding truck travel patterns.

A member inquired whether Cornelius Pass Rd should be included, since it's the hazardous material route. (Those materials are not allowed through Hwy 26 tunnel). It was noted that Cornelius Pass Rd is part of a mobility corridor (if you can't get through the tunnel).

<u>Update on VMT, Mode share, Multimodal travel times, Congestion & Interim regional</u> <u>mobility policy (John Mermin)</u>

#1 Multimodal Travel

This measure will now include Person miles traveled (in addition to VMT, BMT, Freight miles traveled and pedestrian miles traveled). VMT will now be calculated at the sub-regional level as requested. (Portland, urban Washington Co, Urban Clackamas Co, East Mult Co). As one in the past for smaller than regionwide geographies, this calculation will include travel to, from, and within the boundary of the sub-region. For TAZ that are between two zones, we'll assign it to the jurisdiction it's mostly in.

#2 Active Transportation & Transit Mode share

In addition to regionwide, central city, regional centers, and mobility corridors, we will all also report this at the sub-regional level as requested.

#12 Multimodal Travel Times

In past RTPs we only looked at auto/transit travel times. For, this RTP we'll be adding bike pedestrian and freight as well. We have a lot of overlap between auto, transit and bike modes in terms of origin/destination pairs which will allow us to make comparisons between two modes to see where modes are competitive and which ones are suffering.

Jamie Snook added that the transit workgroup we added about 10 O/D pairs (not shown on the handouts) – mostly suburb to suburb. As much as possible they wanted Metro to compare all modes.

Lake McTighe mentioned that she'd be getting input from regionwide bike coordinators on the proposed O/D pairs for bike travel times.

A workgroup member raised the issue of suburb to suburb connections e.g. Wilsonville to Sherwood to Wilsonville to Canby.

Tom responded that we can do any of these, but which corridors do you want to be formally reported on as part of the RTP? (vs. local TSP analyses that you do with the data we provide)

A workgroup member noted that the Portland CBD to Milwaukie O/D pair was missing from the transit map and recommended that it get added (given the new light rail connection).

A workgroup member asked about the opportunity to add in more suburban centers in Washington County that are developing now or have developed recently. He noted that the bike O/D pairs included more than the auto.

John responded that it's a balance – we'd like to report on the most important pairs from a regionwide perspective, and that if we added too many pairs the volume of data outputs gets to be overwhelming.

A workgroup member suggested provide some criteria about which ones are key? That would allow him to provide more informed feedback on the draft list.

Tom reminded the group that the purpose of the travel time measure is about providing some guidance about how the system is functioning.

A workgroup member asked how the model accounts for the total travel time (e.g. parking c car or waiting for transit to arrive. Cindy responded that historically just at the in-vehicle time only, but that the goal is to include out of vehicle time when we have a tour-based model in the future. For now, there are just standard assumptions for parking times.

A workgroup member recommended adding Cornelius Pass as an auto corridor (St John's to Hillsboro via Cornelius Pass)

A workgroup member recommended highlighting connections that don't currently exist because of system gaps. Potential for creating/using a system completion map?

Lake noted that by looking at time by modes would help highlight gaps by modes (i.e. why is it taking so long to bike from here to here?)

A workgroup member asked if bicycle travel times are restricted to bike facilities or all possible routes. Lake replied that the model accounts for attractiveness of the facility and routes people accordingly – weighting time/ out of direction travel vs. attractiveness of the facility type.

A workgroup member noted it is important to extract/tell the story about what we can take away from the system measures

<u>#13 Congestion & Interim regional mobility policy</u>

John described that we're recommended keeping hours of delay per capita, even though hours of delay is not the preferred method of congestion. At least it is on a per capita basis so it factors in (and allows the region to take credit for) those using other modes who are not necessarily stuck in the delay.

John noted that the Interim Regional mobility policy will be kept in the plan for now, but that ODOT has agreed to help fund a refinement plan following the 2018 RTP that will update this policy.

A workgroup member noted that many local jurisdictions would like to be involved in these discussions, since those perspectives can differ from ODOT's/ Salem. Another adder that having scoping discussions for the refinement plan sooner rather than later would be desirable. A workgroup member noted that he'd like to explore with Metro additional flexibility to local jurisdictions regarding the IRMP within Metro's regulatory document – the Regional transportation Function Plan – prior to the refinement plan completion.

Safety System Evaluation Measures (Lake McTighe)

Lake provided an update for two measures.

#5 Exposure to Crash Risk
She clarified that this is measuring non-freeway miles (VMT will be excluded on specific limited access routes). VMT/TAZ Area as opposed to per capita

#6 Access to Travel Options

She is still trying to assess whether ADA/accessibility will be included.

Equity System Evaluation Measures (Grace Cho)

Grace provided an update for three measures. <u>#8 "Access to Community Places"</u> She clarified that name had changed to "Access to <u>Community</u> Places". <u>#3.Affordability</u> Metro planning staff is working with Research Center to develop a methodology around this (still scoping) – focuses on 'out-of-pocket-consumer-costs'.

#16 Clear Air

Metro staff has identified a list of 9 air toxics. Metro Staff is exploring with DEQ the potential to do sub regional evaluations on air quality and emissions as requested by this workgroup.

Next Steps

Peter Hurley emphasized that there are a number of things that we can't model/forecast but are really important when thinking about how we tell the story. He has concerns about congestion measures not considering reliability, etc. He recommends spending more time looking about how to tell the reliability story using the factors that research identifies as determinants of reliability. This will help us identify how improvements will impact the system as a whole.

Tom responded that he did not think we're retreating from the concept – but we may need to circle back and think about how we're communicating/telling the story, etc. Lake offered that increased VMT creates increased crashes, climate change impacts. She offered that we should consider how resilient/flexible the system is when there is an event (accident, weather, etc.)

John responded that prior to our next meeting (in June), we may hold have a 'workshop' to talk about reliability, project criteria, with all of the RTP workgroup members (e.g. equity, safety, freight, transit, performance measures)

Other next steps include presentations to TPAC on 1/27 and MTAC 2/15 and recommendation from TPAC to JPACT on 2/24. John instructed members to communicate with their TPAC and MTAC representatives in advance of those meetings.

John noted that methodologies for each member are being developed my Metro staff and will be shared with TPAC on 1/27 (and will be sent out to the workgroup as well). John thanked workgroup members for their time spent to date and Tom adjourned the meeting.

Materials after this page were distributed at the meeting.

FY18-19 Special Transportation Fund (STF) and 5310 Grant Requests

Table of Contents

Applicant	App #	Applicant	Project Title	STF or 5310	Previous FY16-17 Award	FY18-19 Baseline Request	Baseline % over Previous	FY18-19 Scaled Request	Scaled Back %	Unmet Need Value
	aa	City of Canby	Canby Area Transit (CAT) Dial-A-Ride	5310	\$470,387	\$484,499	3.0%	\$410,370	15.3%	\$786,507
1	а	City of Canby	Canby Area Transit (CAT) Dial-A-Ride	STF	\$245,500	\$252,865	3.0%	\$202,343	20.0%	\$293,857
		City of Canby	Agency/Organization Total Request		Carden Sterre	\$737,364	an a	\$612,713	16.9%	
2	bb	City of Sandy	Elderly and Disabled (ED) door-to-door service for out-of-area rides	5310	\$98,703	\$101,664	3.0%	\$101,664	0.0%	\$10,000
	сс	City of Sandy	Relacement Vehicles	5310	\$166,898	\$171,905	3.0%	\$119,340	30.6%	
	dd	City of Sandy	Preventative Maintenance	5310	\$131,006	\$134,936	3.0%	\$134,936	0.0%	
	ee	City of Sandy	Rural Deviated Route Purchased Service	5310	\$60,000	\$61,800	3.0%	\$72,000	-16.5%	\$34,000
	b	City of Sandy	Sandy Transit Area Rides (STAR) Demand Response Services	STF	\$252,873	\$260,459	3.0%	\$208,393	20.0%	\$224.075
		City of Sandy	Agency/Organization Total Request	ana la		\$730,764		\$636,333	12.9%	
3	С	City of Wilsonville	Medical Transportation for Elderly & Disabled Wilsonville Residents (Total Request)	STF	\$215,900	\$222,380	3.0%	\$177,950	20.0%	\$86,700
	ff	Clackamas County	Boring Lifeline Transportation Service- Purchased Service	5310	\$73,065	\$75,257	3.0%	\$64,428	14.4%	
4	gg	Clackamas County	Preventative Maintenance	5310	\$61,914	\$63,771	3.0%	\$54,595	14.4%	
	d	Clackamas County	Title XIX Match for non-Medical Transportation	STF	\$74,984	\$74,000	-1.3%	\$50,000	32.4%	
	е	Clackamas County	Mountain Express Service Continuation (Base)	STF	\$20,600	\$21,218	3.0%	\$17,102	19.4%	\$85.030
Photos Star		Clackamas County	Agency/Organization Total Request			\$234,246		\$186,125	20.5%	
	f	ССТС	Consortium Senior Center Specialized Transportation Service	STF	\$299,957	\$308,956	3.0%	\$249,024	19.4%	\$528,272
	g	ССТС	Consortium Out of District Base Service	STF	\$310,880	\$320,123	3.0%	\$258,026	19.4%	\$462,725
5	h	ССТС	TRP program Paid Driver Service	STF	\$209,443	\$215,726	3.0%	\$173,880	19.4%	\$301.096
	j	ССТС	TRP Volunteer Mileage Support	STF	\$59,273	\$61,051	3.0%	\$49,208	19.4%	\$151,801
	j	ССТС	TRP: TRP/CAR School-Work Access	STF	\$59,921	\$61,719	3.0%	\$49,746	19.4%	\$651,431
		ССТС	Agency/Organization Total Request		ness procedure	\$967,575		\$779.884	19.4%	+001)101
	hh	Impact NW	Senior & Disability Service Program Transportation	5310	\$230,222	\$237,129	3.0%	\$237,129	0.0%	\$237,128
6	k	Impact NW	Transportation Services for Seniors & Adults with Disabilities	STF	\$156,815	\$161,519	3.0%	\$129,248	20.0%	\$284 129
		Impact NW	Agency/Organization Total Request			\$398,648	The states	\$366.377	8.1%	<i>\</i>
7	ii	Metropolitan Family Service	MFS Project Linkage	5310	\$115,585	\$119,054	3.0%	\$119.054	0.0%	\$311.071
	1	Metropolitan Family Service	Project Linkage STF **	STF	\$144,585	\$239.773	65.8%	\$191,866	20.0%	\$413,000
		Metropolitan Family Service	Agency/Organization Total Request			\$358,827		\$310.920	13.4%	¥+10,000
8	m	Multnomah County	Medicaid Community Transportation Services (Total Request)	STF	\$1,100,211	\$1.133.217	3.0%	\$906,800	20.0%	\$279.000
9	n	Neighborhood House	Senior And Disabled Transportation Program (Total Request)	STF	\$132,319	\$136,289	3.0%	\$109.058	20.0%	\$177 564
10	0	NW Pilot Project	Transportation Program (Total Request)	STF	\$120,000	\$123,600	3.0%	\$98,905	20.0%	\$145,400

FY18-19 Biennium Funding Summa									
	STF Formula	5310 Formula	Formula Funds Total						
FY16-17 Total Award	\$ 10,167,408	\$ 7,845,798	\$ 18,013,206						
Grant Target Estimates									
Total Available (Estimate)	\$ 8,441,117	\$ 7,442,981	\$ 15,884,098						
Target Reduction from FY16-17 Levels	16.98%	5.13%	11.82%						
Grant Requests									
FY18-19 Biennium Baseline Request	\$ 10,393,424	\$ 8,161,175	\$ 18,554,599						
FY18-19 Biennium Scaled-Back Request	\$ 8,392,819	\$ 7,282,929	\$ 15,675,747						

FY18-19 Biennium Grant Requests, by type								
5 9	Baseline	Scaled Back						
Maintain Operations	\$13,082,907	\$11,015,914						
Replacement Vehicles &								
Preventative Maintenance	\$6,406,577	\$5,190,749						
"New Project"	\$1,556,690	\$1,334,264						
Technology	\$6,406,577	\$5,190,749						

Transportation Policy Alternatives Committee (TPAC)

Agenda Item 5:

- This item seeks multi-project approval in one motion to:
 - $\circ\,$ Send on approval recommendation to JPACT
 - Approve Resolution 17-4766
 - $\,\circ\,$ Authorizes amending the 2015-18 MTIP
 - $\,\circ\,$ To add TriMet's new discretionary federally funded projects:
 - o Open Trip Planner project
 - $\circ~$ Low or No Emission (Low-No Bus Replacement)
- Discussion:
 - Project overview
 - Summary of review factors for MTIP inclusion



Open Trip Planner Project Overview

- FTA's Mobility on Demand (MOD) Sandbox
 Program Open Trip Planner project
- \$678,000 discretionary FTA Section 5312 grant:
 - Part of a nation wide effort by FTA to support transit agencies integrate new mobility tools
 - To help make transportation systems more efficient
 - Especially for those who lack a vehicle
 - Project cost: \$678k (fed grant) + \$169k (required match) + \$114,500 (overmatch) = \$962,000 (total)

Low or No Emission (Low-No Bus Replacement) Overview

- FTA's Bus Replacement Procurement Low or No Emission Vehicle Program FY 2016
- \$3,405,750 discretionary FTA Section
 5339c grant:
 - To purchase and evaluate zero-emission electric buses in the Portland region
 - Project cost: \$3,405,750 (fed grant) + \$601,015 (required minimum local match) + \$3,258,235 (overmatch) = \$7,265,000 (total)

MTIP Review Criteria 7 Key MTIP Inclusion Review Factors

- 1. Eligibility and proof of funding verification: YES
- 2. RTP review and verification: YES
- 3. RTP goals consistency YES:
 - Goal 3: Expand Transportation Choices
 - Goal 4: Efficient Transportation System Management
- 4. Admin versus Formal amendment determination: Formal New Project
- Conformity review: YES Exempt, via CFR 40 CFR
 93.126, Table 2 (no impact to conformity)
- Fiscal constraint verification: YES New FTA funds added to MTIP Financial Plan
- MPO responsibilities completed: YES including a formal 30 day public notification review

Summary

Seeking approval of Resolution 17-4766 (covers both projects)

- No direct impact upon Metro allocated funds
- TriMet has completed all require actions with their Board
- Staff recommends approval of the resolution by TPAC
- Proceed on to JPACT on February 16, 2017
- Request final approval from Council on March 9, 2017
- Council approval will enable TriMet to complete their required grant application in the FTA TrAMS system to obligate and begin expending the discretionary grant funds.

TrAMS = FTA's Transit Award Management System



MTIP TriMet Formal Amendment Open Trip Planner Project Low or No Emission (Low-No Bus Replacement)

TriMet Additional Comments



MTIP TriMet Formal Amendment Open Trip Planner Project Low or No Emission (Low-No Bus Replacement)

Questions



2017-18 Unified Planning Work Program

January 27, 2017

Overview

- 2017-18 Draft Federal Self-Certification
- Draft 2017-18 UPWP

What is MPO Self-Certification?

- Self-certification:
 - MPO confirms compliance with federal transportation planning requirements
 - Prerequisite to receiving federal transportation planning funds
 - Formal cert review every four years
 - February 2017
 - Ensures flow of federal funding

Metro MPO Responsibilities

- Unified Planning Work Program
- Air Quality Conformity
- Congestion Management Plan
- Metropolitan Transportation Improvement Program
- Regional Transportation Plan

What is the UPWP

- Annual federally-required document that ensures efficient use of federal planning funds
- Describes:
 - Transportation planning tasks
 - Relationship to other planning activities in the region
 - Budget summaries

What the UPWP isn't

- Not a regional policy making document
- Not a funding decision document, does not allocate funds
- No construction, design, or preliminary engineering
- Only includes transportation planning projects, federal funds, coming fiscal year

Next Steps

- February TPAC, Action
- March JPACT, Draft
- April JPACT, Action
- April/May Metro, Council Action
- May FHWA, FTA, ODOT

Questions?

- Contact:
- John Mermin
- Senior Transportation Planner
- John.mermin@oregonmetro.gov
 - 503-797-1747

FY18-19 Biennium Special Transportation Fund & Section 5310 Grant Program Allocations

Eric Hesse, TriMet

TPAC January 27, 2016





STF / 5310 Overview

- Special Transportation Funds (STF) and Federal Section 5310 help fund service for seniors and/or persons with disabilities
- TriMet is the state-designated agency for this region to distribute STF
- STF Advisory Committee (STFAC) advises the TriMet board on the priorities for STF & 5310
- Funds are for entire tri-county area, both inside and outside TriMet district



STF / 5310 Program Administration

TriMet is the "STF Agency", responsible for:

- Coordinating the grant, planning process, and Coordinated Transportation Plan (CTP) Update
- TriMet board responsible for endorsing or approving applications
- Distribution of STF funding



Regional STF & 5310 Recipients include:

- TriMet LIFT
- South Metro Area Rapid Transit (SMART)
- Sandy Transit (SAM and STAR)
- Canby Area Transit (CAT)
- South Clackamas Transportation District (SCTD)
- Clackamas County Transportation Consortium (CCTC)
- Ride Connection & partners



Coordinated Services













Funds and Sources - FTA

- Federal Section 5310 Formula funding for enhanced mobility of seniors and individuals with disabilities.
- Urban allocation direct from FTA sub-apportioned between TriMet, CTRAN, and Wilsonville
 - FY15 \$1,145,386 (Received)
 - FY16 \$1,195,131 (STIP Forecast)
 - FY17 \$1.8 Million (STIP Forecast)
 - FY18 \$2 Million (STIP Forecast)



Funds and Sources - ODOT

Federal Section 5310 -

- Typical projects include vehicle fleet growth and maintenance, facilities, signs, equipment, and purchased service.
- 10.27% local match required
- STFAC Recommends project-level funding
- Regional Formula targets:
 - FY16-17 Biennium Allocation: \$7,845,798
 - FY18-19 Biennium Estimate: \$6,881,050 (-12.30%)



Funds and Sources - ODOT

STF – "Special Transportation Fund."

- State formula funds sourced from cigarette tax, nonhwy gas tax, ID Cards, and general fund.
- Financial support for special transportation services benefiting seniors and individuals with disabilities.
- "Local" funding often used to leverage federal funds.
- STFAC recommends project-level funding
- Regional Formula Targets:
 - FY16-17 Biennium Allocation: \$10,167,408
 - FY18-19 Biennium Estimate: \$8,441,117(-12.30%)



Funds and Sources - ODOT

STF Discretionary –

- Funds Capital, Operations, Planning, and Mobility Management.
- Available through competitive grant process.
- State decides on project-level funding awards
- Regional Discretionary Targets:
 - FY16-17 Biennium Allocation: \$2,378,140
 - FY18-19 Biennium: Not Expected



Coordinated Transportation Plan (CTP) for Seniors and Persons with Disabilities

- Must meet federal and state requirements for the region to receive funds
- Updated every 4 years; most recently June 2016
- Developed in consultation with STF Advisory Committee (STFAC)
- Projects funded by STF and 5310 must be derived from the CTP plan



Funding Priorities and Considerations

- When making funding decisions, STFAC considers CTP priorities, cost-effectiveness, and strategic and equitable distribution of funding.
 - Top priority Maintain existing services, vehicle replacement, and preventative maintenance
 - Expand service, increase capacity, improve service quality of existing services, and improve accessibility
 - Implement new and innovative initiatives related to technology and different service models



FY18-19 STF/5310 State Formula Application Schedule

- January 6th, 2016 Applications due to TriMet
- January 27, 2017 Applicants Present Requests to STFAC
- **February 10, 2017** STFAC Application Evaluation & Project Funding Recommendation
- *February 22, 2017* STFAC funding recommendations go to TriMet board for endorsement
- Contracts and IGAs executed; Project funding begins July 1, 2017



Questions and Discussion

- Unmet need
- Questions on process for STF/5310 Formula Funds?



Contact

Hannah R. Quinsey Planning and Policy Phone: (503) 962-4912 Email: quinseyh@trimet.org





2018 RTP System Evaluation Measures

Presentation to TPAC, January 27, 2017 John Mermin, Regional Planner

Meeting Purpose

- Discuss proposed refinements to the RTP System evaluation measures
- Provide suggestions for effectively summarizing the recommended measures to policymakers.

Background

- Performance one of 8 RTP work groups
- Providing technical expertise to staff to help refine performance measures
- Met 6 times in 2016
- Emphasis on simplifying measures
Performance Workgroup roster

John Mermin Metro (Workgroup lead) **Todd Juhasz** Beaverton, MTAC Abbot Flatt Clackamas County Kelly Rodgers Confluence Planning Dan Riordan Forest Grove Kelly Clarke Gresham **Don Odermott** Hillsboro TPAC **Christina Fera-Thomas** (Hillsboro Alternate) Karla Kingsley Kittelson & Associates Inc. Ken Lobeck Metro – MTIP staff **Denny Egner** Milwaukie, MTAC

Jessica Berry Multnomah County **Bill Holstrom** DLCD Lidwien Rahman ODOT, MTAC **Phil Healy** Port of Portland, TPAC Judith Gray Portland, TPAC **Peter Hurley** (Portland Alternate) Lynda David SW Wash RTC, TPAC **Chris Rall** Transportation-4-America Eric Hesse TriMet, TPAC & MTAC **Steve Kelley** Washington County **Erin Wardell** (Wash County Alternate) Steve Adams Wilsonville

...Background (cont'd)

- Several RTP workgroups have contributed to these recommendations
- Context for equity work
 - Identify transportation priorities for historically marginalized communities & develop ways to measure them in RTP
- New and challenging work

How are System Evaluation Measures used?

- Evaluate performance of the 2018 RTP as a whole
- Helps policymakers understand how well RTP projects & programs help meet regional goals

Themes to organize measures

- How much do people and goods travel?
- How much do households spend in housing and transportation?
- How safe is travel?
- How easily, comfortably and directly can we access jobs and destination?
- How efficient is travel?
- How will transportation impact climate change, air quality and the environment?

Measures new to this RTP

<u>New</u>

#4 Share of Safety Projects
#5 Exposure to crash risk*
#7 Access to jobs*
#10 Access to transit
#11 Access to Industry and Freight
Intermodal Facilities

Major Changes

#6 Access to travel options*

#8 Access to community places*

* Reflects the transportation priorites identified by hisotrically underrepresented communities and will serve as the basis for the federally-required Title VI Benefits and Burdens Analysis

How safe is travel?

- Add new measure:
 - #4 Share of safety projects
 - % of number and cost of projects in the RTP regionwide and in areas with historically marginalized communities
- Add new measure:

#5 exposure to crash risk*

 Non-Freeway VMT exposure per TAZ area regionwide and in historically marginalized communities

• Refine, continue to develop methodology and rename:

Basic infrastructure : "#6 Access to Travel Options system connectivity."*

 Miles, network percent complete, connectivity, density and timing of sidewalk, bikeway, trail and new street investments region wide, in historically marginalized communities, in focused historically marginalized communities and within ½ mile of transit.

Add new measure:

- #7 Access to jobs
 - Number of jobs (classified by wage groups low, middle, and high) accessible within
 - 30 minutes by auto
 - 45 minutes by transit
 - 30 minutes by bike
 - 20 minutes by walking.

• Refine and Rename

#8 Access to community places Access to daily needs

- Measure access by bicycling, walking, transit, driving
- Adjust the time sheds for each mode
- Define existing "daily needs" consistent with other similar efforts, including the TriMet Equity Index.

• Add new measure

#10 Access to transit

 Number and share of households, low-income households and employment within ¼- mile of high capacity transit or frequent service transit

- Add new measure
 - #11 Access to industry and freight intermodal facilities
 - Under development: Intending to look at the extent that industrial land and freight intermodal facilities are transportation constrained

RTP Measures vs Goals

Attachment 2. RTP System Evaluation Measures and RTP Goals Comparison for TPAC

January 20, 2017

		RTP Goals										
RTP System Evaluation Measures		Forther Littering Communities and Compart: Uniter Form	Statish Economic Competitioness and Prosperity	Expend Transportation Choices	E floctice and E Bolet Management of System	Enteriors Safety and Sourty	Promoto Emirormontal Stowardhij	Enforce Human Histith	Democrate kenkerkip nehotig groednates gas enteknas	Ereano Equity	Erraire Flacif Stownrohip	Define Accountability
	How much do people and goods travel in our region?											
1	Multimodal Tawal - Systematic #of miles twoetd (tital end state of overal tawal) and uppopio #of miles taweet (tabl and state of overal tawal). Vertice mile taweetd (NUT) - tata, per capita, per employee, Baycle miles taweetd - tabl and per capita, Prefipt miles traveet, Redentime miles taweeto tabl and per capita, Person miles taweetd tatal and per capita.	•	•	•	•	•	•	•	•			
2	Aotive transportation and transit mode share - 8ystem-uide- total and share for usking, bicyding, transit. Non-Binje Occupancy Vehicle (SOV) - total and share for Centra Oty, Regional Centers, Nobility corridors, sub-regions.	•	•	•	•		•	•	•			
	How much do households spend on housing	and tra	anapor	tation in	n our re	gion?	_	_	_	_		
8	Affordability" - Combined Housing and Transportation (methodology TBD)		-			-					-	
	How safe is travel in our region?								Nu	d and		
4	Share of Safety Projects- Pecent of number end cost of ptjets In the RTP Investment psciages appropriate and in ereas with historically underrepresented communities.		•		•		•	•	•	•	ter Accounts	ter Accord
6	Exposure to areat next Non-Preesing VIUT exposure per 1A2 syst-Suppup to creati risk through the sum of all non-interstate vehicle miles traveled (VIUT) in transportation Area Zones (TA2) for RTP Investment packages region-value, and in historically underegneemented communities.		•		•			•		•	and they and Defi	and the and Defi
	How easily, comfortably and directly can we a	CC888 j	obs an	d desti	nations	in our	region	?			al Stow	al Stow
8	Access to Travel Options – system connectivity & completeness" - methodology TED. Submessure: Access to transit (percent of take or pedestrien network gaps completed within X-mile of transit)	•		•		•	•	•	•	•	Tenano Piso	Tensure Flace
7	Access to Jobs" - Number of jobs (clessified by wage groups - low, middle, and high) accessible within 30 minutes by auto; 45 minutes by transit; 30 minutes by blice, and 20 minutes by walking	•	•	•			•	•		•	us for the	us for the
8	Addess to Community Pades" - suppope access to dicycling, walking, transit, driving 2)Adjust the time sheds for each mode 3) Define existing 'daily needs' consistent with other similar efforts, including the TXNet Equity Index.	•		•			•	•		•	100	the most and
8	Access to Bioyole and Pedestrian Parkways - Number end percent of households within % mile of a bicycle or pedestrian perkway.	•	•	•		•	•	•	•	•	n Cithe	n erafter
10	Access to transit -Number and share of households, low-income households and employment within %-mile of high capacity transit or frequent service transit	•		•		•	•	•	•	•	no system	no system
11	Access to Industry and Reight Internodal Pacifice – Nethodology TBD How afficient is fravel in our region?										there are	There are
12	Multi-modal Travel Times - between key origin-destinations for										[-
13	mid-day and 2-thr FNU peek Conglestion – A) Vehicle hous of delay per person B) interim Regional Mobility Policy – Locations of throughways, enterlais, and regional Height network facilities that exceed LOS timeshold C) Freight Truck (delay O) Todis cost of delay on Height network	-	•	-	•	•	•		•			
14	Transit efficiency – A Boarding rides per levenue hour for HCT & bus B) Revenue hours by tensit mode C) Transit ridership successive by each transit service type	•		•		•	•	•	•			
	How will transportation impact climate change	ə, air qu	iality a	nd the (environ	ment?						
16	connec Change - Tora of transportation-related groonhouse gas emissions (e.g. CD ₃)		•	•			•	•	•			
18	creati air - rots of transportsion-resets or pollutents (a.g.CC, azona, and PM-10) Habitat impact ² . Number and secret of pollects that interact		•	•			•	٠		•		
w	high value habitat	•					•	•		•		

"Reflects the transportation priorities identified by historically underrepresented communities and will serve as the basis for the federally-required. The V Benefits and Burdens analysis.

RTP Measures vs Goals

Attachment 2. RTP System Evaluation Measures and RTP Goals Comparison for TPAC

January 20, 2017

		RTP Goals										
	RTP System Evaluation Measures	Foster Vibrant Communities and Compact Urban Form	Sustain Economic Competitiveness and Prosperity	Expand Transportation Choices	Effective and Efficient Management of System	Enhance Safety and Security	Promote Environmental Stewardship	Enhance Human Health	De monstrate leadership reducing greenhouse gas emissions	Ensure Equity	Ensure Fiscal Stewardship	Deliver Accountability
	How much do people and goods travel in our	region?	?									
1	Multimodal Travel – System-wide # of miles traveled (total and share of overall travel) and subregion # of miles traveled (total and share of overall travel): Vehicle miles traveled (VMT) – total, per capita, per employee, Bicycle miles traveled – total and per capita, Freight miles traveled, Pedestrian miles traveled- total and per capita, Person miles traveled total and per capita.	•	•	•	•	•	•	•	•			
2	Active transportation and transit mode share – System-wide – total and share for walking, bicycling, transit. Non-Single Occupancy Vehicle (SOV) – total and share for: Central City, Regional Centers, Mobility corridors, sub-regions.	•	•	•	•		•	•	•			
How much do households spend on housing and transportation in our region?												
3	Affordability* – Combined Housing and Transportation											

Next Steps

<u>Tasks</u>

- Continue methodology documentation
- Finalize measures still under development
- Refine presentation / packaging of measures

Discussions

- February 15 MTAC review and comment
 - March 31 TPAC recommendation to JPACT (within package to support building the RTP Investment Strategy)
 - Reconvene workgroup June November 2017
 - Review system evaluation and refine measures
 - Establish monitoring measures
 - Set performance targets (consistent with MAP-21)

Questions / Comments?

- Email john.mermin@oregonmetro.gov with any feedback on methodologies by end of February
- Further thoughts on packaging / summarizing measures for decisionmakers?



2018 RTP: Vision Zero and Transportation Safety Plan Update

TPAC

January 27, 2017

Update Regional Transportation Safety Action Plan

- Update Metro State of Safety Report data
- Update safety targets, develop performance measures
- Identify High Injury Corridors
- Update and adopt Regional Transportation Safety Action Plan

Policy Framework for safety

- Continued emphasis on improving transportation safety
- Growing use of the Towards Zero Deaths and Vision Zero frameworks and targets
- Use of data, performance measurement, and evaluation
- Recognition of vulnerable users
- Integration of equity and public health perspectives

Questions for TPAC

- Does TPAC support moving forward with:
- 1. Vision Zero target?
- 2. Transportation safety system evaluation measures?
- 3. Regional High Injury Corridors as a tool to help inform prioritizing investments?



Vision Zero – Toward Zero Deaths



2035 Vision Zero target

By 2035 eliminate transportation related fatalities and serious injuries for all users of the region's transportation system, with a 16% reduction by 2020 (as compared to the 2015 five year rolling average), and a 50% reduction by 2025.

16% reduction by 2020 (52 deaths) 50% reduction by 2025 (31 deaths) zero deaths by 2035



16% reduction by 2020 (384 serious injuries) 50% reduction by 2025 (229 serious injuries) zero serious injuries by 2035



Annual targets – FHWA performance measures

	FHWA Performance Measures										
		Fatalit	y Rate		Serious In	jury Rate	Non-Motorized				
Reporting Year (based on a 5-year rolling average)	Fatalities (People)	Per VMT (People/ 100 MVMT)	Per capita (People/ 100k pop)	Serious Injuries (People)	Per VMT (People/ 100 MVMT)	Per capita (People/ 100k pop)	Fatalities and Serious Injuries (People)				
2011 - 2015 (Base)	62	0.9	4.0	457	6.4	29.4	113				
2014 - 2018	58	0.8	3.6	425	5.8	26.5	105				
2015 - 2019	55	0.7	3.4	407	5.5	25.1	101				
2016 - 2020	52	0.7	3.2	384	5.1	23.4	95				
2017 - 2021	49	0.6	2.9	357	4.7	21.5	88				
Note: Due to roundin	g, addition of	numbers acro	ss modes may	y result in mi	nor variation f	from totals.					

Annual targets motor vehicle only

	Motor Vehicle Only									
		Fatalit	y Rate		Serious In	ijury Rate				
Reporting Year (based on a 5-year rolling average)	Fatalities (People)	Per VMT (People/ 100 MVMT)	Per capita (People/ 100k pop)	Serious Injuries (People)	Per VMT (People/ 100 MVMT)	Per capita (People/ 100k pop)				
2011 - 2015 (Base)	38	0.5	2.4	368	5.2	23.7				
2014 - 2018	35	0.5	2.2	343	4.7	21.3				
2015 - 2019	34	0.5	2.1	328	4.4	20.2				
2016 - 2020	32	0.4	1.9	309	4.1	18.8				
2017 - 2021	30	0.4	1.8	287	3.8	17.3				
Note: Due to roundin	g, addition of	numbers acro	ss modes may	y result in mi	nor variation f	from totals.				

Annual targets pedestrians

	Pedestrians									
		Fatalit	y Rate		Serious Injury Rate					
Reporting Year (based on a 5-year rolling average)	Fatalities (People)	Per VMTPer capita(People/(People/100 MVMT100k pop)		Serious Injuries (People)	Per VMT (People/ 100 MVMT)	Per capita (People/ 100k pop)				
2011 - 2015 (Base)	22	0.3	1.4	56	0.8	3.6				
2014 - 2018	20	0.3	1.3	52	0.7	3.2				
2015 - 2019	20	0.3	1.2	49	0.7	3.0				
2016 - 2020	18	0.2	1.1	47	0.6	2.8				
2017 - 2021	17	0.2	1.0	43	0.6	2.6				

Note: Due to rounding, addition of numbers across modes may result in minor variation from totals.

Annual targets bicyclists

	Bicyclists									
		Fatalit	y Rate		Serious In	ijury Rate				
Reporting Year (based on a 5-year rolling average)	Fatalities (People)	Per VMT (People/ 100 MVMT)	Per capita (People/ 100k pop)	Serious Injuries (People)	Per VMT (People/ 100 MVMT)	Per capita (People/ 100k pop)				
2011 - 2015 (Base)	2.2	0.03	0.14	33	0.5	2.1				
2014 - 2018	2.0	0.03	0.13	31	0.4	1.9				
2015 - 2019	2.0	0.03	0.12	30	0.4	1.8				
2016 - 2020	1.8	0.02	0.11	28	0.4	1.7				
2017 - 2021	1.7	0.02	0.10	26	0.3	1.6				
Note: Due to roundin	g, addition of	numbers acro	ss modes may	y result in mi	nor variation f	from totals.				

Evaluation Measures – share of safety projects

Share of safety projects - Percent of the number and cost of safety projects in the RTP investment packages region wide, in areas with historically marginalized communities, in areas with focused historically marginalized communities and per person in each area. Evaluation Measures – share of safety projects

Safety Projects in the RTP are capital infrastructure projects with the primary intent to address a safety issue, and allocate a majority of the project cost to a documented safety countermeasure(s) to address a specific documented risk, or improve safety for vulnerable users, including people walking and bicycling, older adults and youth.

Evaluation Measures – share of safety projects

Safety countermeasures are actions taken to improve transportation safety and therefore decrease the number of injuries and fatalities. Safety countermeasures may include geometric design, systemic safety, and intelligent transportation systems. Countermeasures should be selected based on analytical techniques that prove effectiveness. Evaluation Measures – exposure to crashes

Exposure to crashes - The sum of all non-freeway vehicle miles traveled (VMT) in Transportation Area Zones (TAZ) for RTP investment packages regionwide, in historically marginalized communities, and in focused historically marginalized communities.

High injury corridors

- Follow up action in 2014 RTP
- Auto, Ped, Bike, and Combined
- Only calculated for regional transportation networks
- Top 35 corridors highest severe crashes per mile for each mode and combined – severe injuries only, normalized by length of segment

Online Map

Metro Crash Map

Oregon Metro High Injury Corridors

60% of Severe Crashes Occur on 6% of All Streets



Oregon Metro High Injury Corridors

50% of Severe Auto Crashes Occur on 4% of All Streets



Central City

Auto HIC — RTP Network 0 3 6 Miles

Source data: Metro Regional Transportation Plan (RTP) Network, RTP Bikeways, RTP Pedways, ODOT crash data (2010-2014)

Oregon Metro High Injury Corridors

50% of Pedestrian Crashes Occur on 2% of All Streets



Oregon Metro High Injury Corridors

Bike HIC

RTP Network

6 Miles

50% of Bike Crashes Occur on 3% of All Streets


Next steps

- MTAC Feb 1
- Metro Council work session Feb. 28
- JPACT March 16
- MPAC March 22 (tent.)
- Next Safety Work Group meetings April, July, October
- Draft updated safety plan for review in late fall 2017