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Metro | *Agenda*

Meeting: Transportation Policy Alternatives Committee (TPAC)
Date: Friday, May 31, 2013
Time: 9:30 a.m. to 12 p.m. (noon)
Place: Metro, Council Chamber

9:30 AM	**1.**		**Call to Order and Declaration of a Quorum**	**Elissa Gertler, Chair**
9:35 AM	**2.**		**Comments from the Chair and Committee Members** • Update on the "Hole in the air" Freight Plan Amendments	
9:40 AM	**3.**		**Citizen Communications to TPAC Agenda Items**	
9: 43 AM	**4.**	*	**Consideration of the TPAC Minutes for April 24, 2013**	
	5.		**ACTION ITEMS**	
9:45 AM	5.1	*	Transportation Control Measure (TCM) Substitution Results – REQUEST FOR APPROVAL • *Purpose*: Ask TPAC to approve the TCM substitution analysis and results. Approve DEQ to move forward with the TCM substitution process. • *Outcome*: TPAC approves the TCM substitution results and allow DEQ to move forward with the TCM substitution process.	**Grace Cho, Metro** **Dave Nordberg, DEQ**
	6.		**INFORMATION / DISCUSSION ITEMS**	
10:10 AM	6.1	#	Regional Active Transportation Plan (ATP)– Final Plan INFORMATION • *Purpose*: Share the recommended regional pedestrian and bicycle networks and policies of the ATP. • *Outcome*: TPAC understanding of the major elements of the ATP and next steps for endorsement and adoption.	**Lake McTighe, Metro**
10:50 AM	6.2	#	Transit Funding and the Metropolitan Transportation Improvement Program (MTIP) – INFORMATION • *Purpose*: Share how federal transit investments are being implemented and agencies are addressing MTIP requirements. • *Outcome*: TPAC understanding of transit investments and prepared to participate in future MTIP adoption process.	**Eric Hesse, TriMet** **Ted Leybold, Metro**

Continued on back…

11:45 AM 6.3 * 2014 Regional Transportation Plan Update – INFORMATION **John Mermin, Metro**

- *Purpose*: Purpose: Share proposed 2014 RTP update work program.
- *Outcome*: TPAC informed of general timeline and scope of 2014 RTP update.

12 PM **7.** **ADJOURN** **Elissa Gertler, Chair**

* Material available electronically.
** Material will be distributed in advance of the meeting.
# Material will be distributed at the meeting.

For agenda and schedule information, call Kelsey Newell at 503-797-1916, e-mail: kelsey.newell@oregonmetro.gov.
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2013 TPAC Work Program
5/17/13

April 26, 2013 – Regular Meeting • 2035 RTP Amendments – Recommendation to JPACT Requested • 2013-15 UPWP and MPO self-certification – Adoption requested • Climate Smart Communities: Updated Phase 2 Investment Choices and Evaluation Criteria – Recommendation to JPACT requested • Climate Smart Communities: Community Case Studies – Information • 2016-18 Regional Flexible Funds Regional Public Comment Update – Information	**May 31, 2013 – Regular Meeting** • Regional Active Transportation Plan: final plan – Information • Preliminary Outline of 2014 Regional Transportation Plan Update Work Program – Information • Transit funding and the Metropolitan Transportation Improvement Program (MTIP) Process – Discussion • Transportation Control Measures Substitution results – Recommendation to JPACT requested
June 28, 2013 – Regular Meeting • Regional Flexible Fund Allocation Step 1 Region-wide Programs - Information • STS Vision Findings and Recommendations- Information • Updated 2014 Regional Transportation Plan Work Program Reflecting Metro Council and JPACT Input – Information • Regional Active Transportation Plan: final plan – Recommendation to JPACT requested • Transportation Alternatives Program (TAP) funding administration - Recommendation to JPACT requested • Metropolitan Planning Area Boundary update – Discussion • "Hole in the air" Freight Plan Amendments – Information	**July 19, 2013 – Regular Meeting** • STIP Enhance Committee process
Aug. 30, 2013 – Regular Meeting • RFFA project narrowing process • Local Coordinating Committee RFFA Public Hearings Summaries – Information • SW Corridor Steering Committee recommendation	**Sept. 27, 2013 – Regular Meeting** • Regional Flexible Fund Allocation projects – Action
Oct. 25, 2013 – Regular Meeting • Climate Smart Communities Scenarios Project – Phase II Findings – Information / Discussion	**Nov. 22, 2013 – Regular Meeting** • Climate Smart Communities Scenarios Project – Phase II Findings –Discussion

Parking Lot:

- Metropolitan Planning Area boundary update
- Travel model update
- Streetcar Methods
- Portland Metropolitan Scenario Planning Rule update

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TRANSPORTATION POLICY ALTERNATIVES COMMITTEE
April 26, 2013
Metro Regional Center, Council Chamber

MEMBERS PRESENT	AFFILIATION
Karen Buehrig	Clackamas County
Steve Entenman	Community Representative
Adrian Esteban	Community Representative
Carol Gossett	Community Representative
Nancy Kraushaar	City of Wilsonville, representing Cities of Clackamas Co.
Katherine Kelly	City of Gresham, representing Cities of Multnomah Co.
Heather McCarey	Community Representative
Margaret Middleton	City of Beaverton, representing Cities of Washington Co.
Dave Nordberg	Oregon Department of Environmental Quality
Cora Potter	Community Representative
Jeff Swanson	Community Representative
Chris Deffebach	Washington Co.
Elissa Gertler, Chair	Metro
Karen Schilling	Multnomah Co.
Paul Smith	City of Portland

MEMBERS EXCUSED	AFFILIATION
Mike Clark	Washington State Department of Transportation
Dean Lookingbill	Southwest Washington Regional Transportation Council
Alan Lehto	TriMet
Scott King	Port of Portland
Satvinder Sandhu	Federal Highway Administration
Rian Windsheimer	Oregon Department of Transportation

ALTERNATES PRESENT	AFFILIATION
Ken Burgstahler	Washington State Department of Transportation
Lynda David	Southwest Washington Regional Transportation Council
Phil Healy	Port of Portland
Eric Hesse	TriMet
Kristen Pennington	Oregon Department of Transportation

STAFF: Grace Cho, Kim Ellis, Mia Hart, Tom Kloster, Ted Leybold, John Mermin, Peggy Morell, Josh Naramore, Kelsey Newell, Ramona Perrault, Patty Unfred.

1. CALL TO ORDER, DECLARATION OF A QUORUM

Chair Elissa Gertler declared a quorum and called the meeting to order at 9:33 a.m.

2. COMMENTS FROM THE CHAIR AND COMMITTEE MEMBERS

- Mr. Dave Nordberg updated members on the Transportation Control Measure Substitution Process (TCM), noting the Oregon Department of Environmental Quality is seeking to readjust existing targets for existing measures. Members gave recognition.
- Mr. Carol Gossett announced the NE Coalition of Neighborhood's Broadway Community Corridor meeting to be held at Grace Memorial Church on April 27.
- Mr. Ted Leybold of Metro updated members on two items:
    - Amendments under the Metropolitan Transportation Improvement Program (MTIP) Quarterly Amendment Report for the previous quarter were summarized in the TPAC mailing. Please contact Grace Cho or Josh Naramore for questions.
    - The Federal Highway Administration announced the TIGER V grant. Applications are requested by June 3. Metro and ODOT will complete a similar process to that of TIGER IV, providing letters of endorsement and identifying a priority application for the region for the TIGER V series. Mr. Leybold will brief JPACT on TIGER V and ask for member's consent on May 9. The ODOT application includes a similar process and must be submitted to Mr. Travis Brower of ODOT on May 10 by 9 a.m. The projects will be discussed prior to the RFFA Public Hearing on May 30 and the evaluation will be presented to JPACT to discuss a priority project for the regional application.
        - Members expressed concern that the timeline is infeasible, considering they have to coordinate with Port of Portland and railroads. Chair Gertler acknowledged the aggressive deadline and underscored the value of Metro endorsing of a priority project.
        - Members reviewed the process and outcome of the TIGER IV grant, noting the regional priority did not receive a funding award. . Chair Gertler emphasized that projects are not only competing within the Portland region, but across the nation.
        - Members identified some of the projects that will be considered for the grant, including Canyon Road, Rivergate, and projects in Multnomah County and Port of Portland.
        - Members identified the match must be 20% to meet grant compliance, but additional match makes the application more competitive.

3. CITIZEN COMMUNICATIONS ON TPAC ITEMS

There were none.

4. CONSIDERATION OF THE MINUTES FOR MARCH 22, 2013

Mr. Jeff Swanson commented that his previous correction to the TPAC Minutes for March 1 was recorded incorrectly. Mr. Swanson asked the amendment state, "Mr. Dean Lookingbill was present, rather than Ms. Lynda David." Members agreed to adopt the friendly amendment.

MOTION: Mr. Swanson moved, Mr. Paul Smith seconded, to adopt the amendment to the Minutes for March 1 and the Minutes for March 22.

RESULT: With all in favor, the motion passed as amended.

5. ACTION ITEMS

5.1 2013-15 UNIFIED PLANNING WORK PROGRAM AND METROPOLITAN PLANNING ORGINZATION CERTIFICATION: RESOLUTION NO. 13-4426

Mr. Josh Naramore of Metro provided an overview of the Unified Planning Work Program (UPWP). Metro is required to adopt the UPWP and self-certification that Metro is in compliance with all federal transportation planning regulations. All planning projects associated with federal dollars are required to be in the UPWP, including corridors, local projects, TriMet projects, and the ODOT planning work program, in addition to SW RTC's UPWP. Mr. Naramore asked members for a recommendation to JPACT, to approve the work scopes and budget.

MOTION: Ms. Katherine Kelly moved, Ms. Karen Schilling seconded, to recommend JPACT to approve **Resolution 13-4426**.

ACTION: With all in favor, the motion passed.

5.2 REGIONAL TRANSPORTATION PLAN AMENDMENTS

Mr. John Mermin of Metro presented on the 2035 Regional Transportation Plan (RTP) Amendments encompassed by five resolutions and one ordinance. Mr. Mermin identified changes to the amendments listed in the Errata Sheet and updated members on the stage of the process. The RTP has completed the required air quality modeling, finished the public comment period, and gave notice to the Oregon Department of Land Conservation and Development.

Mr. Mermin provided a summary of Metro Council, JPACT, MPAC, and MTAC discussions surrounding the amendments. Comments were concentrated around the Portland, Hillsboro, and ODOT projects. Committee discussion included:

- East Portland Connections Plan
- Terminus change in Beaverton's downtown project
- Controversy over the public involvement process on North Williams Avenue
- Widening lanes and adequate public comment period for the ODOT I-5 auxiliary lane projects
- Arterial widening and buffered bike lanes in Hillsboro

The Metro Council will review the first ordinance and hold a public hearing on May 2. JPACT will review for action on May 9 and Metro Council will hold the last public hearing and review for action on May 16.

Member discussion included:

- Members discussed pedestrian crossings in Scholls Ferry Road. Members commented the crossings are not always necessary, but if implemented, need to be safe and highly visible to drivers.
- Members expressed concern over the potential of off-street facilities and the inadequacy of buffered bike lane along a 45 MPH street.
- Members requested minor language changes within Exhibit A and Exhibit B. Additionally, members noted the total funding amount is misprinted on the Errata Sheet.

MOTION: Ms. Margaret Middleton moved, Mr. Chris Deffebach seconded, to recommend JPACT approve the RTP Amendments incorporating the amendments to the Erratta Sheet:

- **Ordinance No. 13-1304:** East Metro Connections Plan
- **Resolution No. 13-4420:** City of Beaverton
- **Resolution No. 13-4421:** City of Portland
- **Resolution No. 13-4422:** ODOT
- **Resolution No. 13-4423:** Washington County
- **Resolution No. 13-4424:** City of Hillsboro

ACTION: With all in favor, motion passed.

5.3 CLIMATE SMART COMMUNTIIES SCENARIOS PROJECT: UPDATED PHASE 2 INVESTMENT CHOICES AND EVALUATION CRITERIA AND COMMUNITY CASE STUDIES

Ms. Kim Ellis of Metro introduced the Climate Smart Communities Scenarios Project and asked members to provide a recommendation to move forward with the evaluation. Ms. Ellis provided context to the project by showing the Climate Smart Communities video and noted the recording will be available on the Metro website and DVD. She stated the intention of the video is to share different perspectives voiced in workshop and focus group engagements throughout last summer and winter.

Ms. Ellis provided background on the Climate Smart Communities Scenarios project. The Climate Smart Communities Scenarios project is aimed at meeting state requirements to reduce greenhouse gas emissions from light duty vehicles by 20% below 2005 levels. However, Metro is working to frame this process beyond climate change leadership by working to leverage investments in land use and transportation to advance equity, vibrant communities, economic prosperity, and increase transportation options.

Ms. Ellis stated the three scenarios presented in the packet will be evaluated this summer and results of the analysis will be presented to committees in October 2013. The final phase will include developing a draft preferred scenario by March/April of 2014, evaluating its performance and adopting the preferred scenario by December 31, 2014, as determined by Metro Council after consultation with local governments through a final comment period and consideration of recommendations by JPACT and MPAC.

Ms. Ellis provided an overview of three case studies: the City of Beaverton, the City of Hillsboro, and the City of Wilsonville. There will be a total of eight case studies released by the end of May. Each

case study focuses on existing actions taken by each community to help reduce greenhouse gas emissions, also noting challenges and successful points in each community. The case study is intended to act as a communication tool to understand the unique approaches adopted by different communities in the region.

Ms. Ellis summarized results from the online Opt-In survey offered from late March through early April. Nearly 3,000 people participated in the survey and the results are available on the project website (www.oregonmetro.gov/climatescenarios) along with participant responses to open-ended questions. Across the tri-county region, results indicate:

- A majority of residents believe reducing greenhouse gas emissions is important and more needs to be done to address climate change.
- Faster and more frequent public transportation is a key point of motivation to reduce driving.
- Protection of farms, forests, and natural areas is a top priority for consideration in the future, in addition to clean air, expanding transportation choices, and attracting businesses and jobs to the region.
- Top three priorities of spending are: increasing transit, using system management strategies to improve traffic flow, and increasing sidewalks and bike facilities.

Ms. Ellis summarized the three scenarios for evaluation this summer. Scenario A will show the results of implementing adopted plans to existing revenues. Scenario B will show the results of raising additional revenues to implement adopted plans - as called for in the adopted Regional Transportation Plan – to allow the region to make more progress toward implementing adopted plans. Scenario C will show the results pursuing new policies, more investment and new revenue sources to more fully achieve adopted and emerging plans. Ms. Ellis reminded members it is unlikely that the preferred scenario will reflect one of the three scenarios as originally defined; it is expected to be a compilation of different elements that work best from each of the three scenarios – a hybrid. In addition, she stated that new ideas may emerge from the policy discussions next fall and winter that could be included in the final preferred scenario.

Member discussion included:

- Members expressed support of the high capacity transit extensions incorporated into two of the three scenarios and inquired about plans for a high speed rail extension from Portland to San Francisco, CA. Ms. Ellis responded this is intended to be the Cascadia Rail high speed rail corridor from British Columbia, Canada to Eugene, Oregon. Members acknowledged this is outside of TriMet's district.
- Members commented that there is a significant demand for increased public transportation from Wilsonville to Salem.
- Members commented that the public/private investment was removed from the land use assumptions section in the Recommended Phase 2 Scenario Assumptions handout. Ms. Ellis stated the handout in the packet is a simplified version of the previous draft.
- Ms. Ellis proposed updating the Fleet and Technology Assumptions to be used as a stronger communication tool.

- Members suggested revising the 'fixing potholes' bullet to more clearly state that road maintenance helps reduce system delay, as the current language does not effectively describe the benefits.
- Members asked what phase partnerships and raising revenues would occur. Ms. Ellis responded that the costs associated with supporting development are public and private costs. There will be a need for discussion around what that means and how to move forward. An implementation cost range will be established for each scenario as part of the evaluation process, in addition to an assessment of what it might take to implement the scenario in the short, mid-, and long-term – this could include new revenues and expanded public/private partnerships. Actions to implement a preferred scenario would begin after Dec. 2014.

MOTION: Ms. Margaret Middleton moved, Mr. Dave Nordberg seconded, to recommend JPACT move forward with the Phase 2 Evaluation.

ACTION: With all in favor, motion passed.

6.1 2016-18 REGIONAL FLEXIBLE FUNDS REGIONAL PUBLIC COMMENT UPDATE

Mr. Naramore provided an overview of the regional public comment process and public engagement process for the regional flexible fund allocation (RFFA). The regional public comment process is May 8 to June 7. The RFFA Public Hearing will be held on May 30.

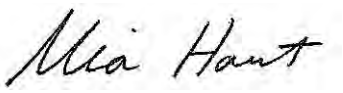
Comments from the public hearing and comment period will be distributed directly to applicants by mid-June. The RFFA will then move to the evaluation and prioritization phase. A local public input process will occur during that same time prior to the recommendation to JPACT and Metro Council of the 100 percent project list scheduled for October 2013.

Members inquired how Metro is working with the STIP process. Mr. Naramore replied that Metro is coordinating with the STIP process and noted the two happened to be simultaneous. Evaluation at JPACT is pushed to October 25, 2013 to accommodate. Members would like to see the OTC vote prior to JPACT and request consideration to move to JPACT on November 22, 2013.

6. ADJOURN

Chair Elissa Gertler adjourned the meeting at 11:05 a.m.

Respectfully Submitted,



Mia Hart

Recording Secretary

ITEM	DOCUMENT TYPE	DOC DATE	DOCUMENT DESCRIPTION	DOCUMENT NO.
4.	Minutes	3/22/2013	March 22, 2013 TPAC Minutes	042613t-01
5.1	Memo	4/26/2013	TIGER V regional endorsement process	042613t-02
5.1	Handout	N/A	US DOT TIGER V Grant Program	042613t-03
5.2	PowerPoint	4/26/2013	2035 RTP Amendments	042613t-04
5.2	Handout	4/23/2013	Errata sheet for RTP Amendments	042613t-05
5.3	PowerPoint	4/26/2013	Phase 2 Investment Choices Evaluation	042613t-06
5.3	Handout	N/A	Climate Smart Communities Scenarios Health Impact Assessment Summaries	042613t-07
6.1	Handout	N/A	Timeline for Engaging Cities, Counties, and Communities	042613t-09
6.2	Memo	4/22/2013	2016-18 Regional Flexible Funds Allocation (RFFA) Public Comment Process	042613t-10

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Metro | *Memo*

Date: May 31, 2013

To: TPAC and Interested Parties

From: Tom Kloster, Transportation Planning Manager
Grace Cho, Assistant Transportation Planner

Subject: Air Quality Conformity - Transportation Control Measures (TCMs) Substitution – Analysis Results Summary

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Introduction

As an EPA designated maintenance area for carbon monoxide (CO), the Portland Metropolitan region is required to develop and implement strategies to reduce the amount of criteria pollutants released from transportation sources. The Portland Area Carbon Monoxide Maintenance Plan has three strategies which are designated as transportation control measures (TCMs). Those measures entail: 1) Increasing transit service; 2) Expanding the bicycle network; and 3) Building pedestrian connections.[1]

Recent transit service cuts have endangered the region's ability to meet the performance standard of Transit Service Increase TCM. Under the existing method for evaluating the Transit Service Increase TCM the region is projected to fall short. Failure to meet a TCM performance standard can result in an air quality conformity lapse, which jeopardizes the region's ability to program federal transportation funds.

An EPA policy allows regions to substitute an equivalent or greater pollution reduction TCM to replace an existing TCM implemented by a region when a Metropolitan Planning Organization, relevant air quality agency and EPA determine that a change is appropriate.[2] The Oregon Department of Environmental Quality (DEQ), in conjunction with Metro, developed a TCM substitution process that was codified with the adoption of the Portland Area Carbon Monoxide Maintenance Plan.[3] In accordance with the DEQ and EPA rules for a TCM substitution, consultation was conducted with the Transportation Policy Advisory Committee (TPAC). Through consultation the region elected to undergo a TCM substitution for the Transit Service Increase TCM to prevent a conformity lapse.

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[1] Oregon Department of Environmental Quality, "Portland Area Carbon Monoxide Maintenance Plan ." State Implementation Plan. Volume 2 Section 4.58 Appendix D9-3.
[2] U.S. Environmental Protection Agency, "Guidance for Implementing the Clean Air Act Section 176(c)(8) Transportation Control Measure Substitution and Addition Provision." Page 1.
[3] Oregon Department of Environmental Quality, "Portland Area Carbon Monoxide Maintenance Plan ." State Implementation Plan. Volume 2 Section 4.58 Appendix D9-2.

Per EPA and DEQ policy, Metro must demonstrate the proposed TCM substitution:

- Demonstrates a collaborative process that includes participation by all affected jurisdictions (state and local air pollution and state and local transportation agencies such as the MPO, state DOT, and transit providers); consultation with EPA; and reasonable notice and opportunity for public comment;
- Can be implemented on a schedule that is consistent with the schedule for the existing TCM being removed;
- Presents evidence of adequate personnel, funding and authority under state or local law to implement, monitor and enforce the TCM;
- Provides equal or greater carbon monoxide emissions reductions; and
- Is concurred by DEQ, Metro, and EPA. [4]

The following memorandum summarizes the analysis which demonstrates the proposed substitute TCM meets DEQ and EPA requirements.

Preferred TCM Substitution Demonstration

Process of Developing the Preferred Substitute TCM and Concurrence by Metro, DEQ, and EPA

Metro and DEQ identified the Transportation Policy Advisory Committee (TPAC) as the consultation body for TCM substitution process as the membership represents jurisdictions, regional and state partners, and community members affected by a conformity lapse. At the January 4, 2013 TPAC, DEQ and Metro staff raised the issue of the region potentially not meeting the performance standard for one of the transportation control measures (TCM) identified in the adopted regional air quality plan.[5] Under federal requirements, the region is expected to implement TCMs and demonstrate each MTIP and RTP conform to the provisions of the air quality plan or risk repercussions of violating federal mandates, which affect all local agencies and projects that receive federal transportation dollars.

Subsequently at the January 25, 2013 TPAC, members recommended Metro staff and DEQ undertake a TCM substitution process to resolve the potential issue of the region not meeting the Transit Service Increase TCM.[6] In giving approval to move forward, DEQ and Metro staff presented several different TCM substitution options at the February and April TPAC meetings. The following TCM substitutions were considered:

- Combining the three TCMs into a single TCM. This substitution would combine the projected emissions reductions associated with each separate TCM threshold together into a single threshold, and assess the collective result of the region's progress in meeting each TCM.
- Change the Calculation Method for the Transit Service Increase TCM. This substitution would change the calculation method for the performance standard of the Transit Service Increase TCM. As stated in the existing transit service TCM, a 5-year rolling average of actual transit service hours is used.

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[4] U.S. Environmental Protection Agency, "Guidance for Implementing the Clean Air Act Section 176(c)(8) Transportation Control Measure Substitution and Addition Provision." Page 1. & Oregon Department of Environmental Quality, "Portland Area Carbon Monoxide Maintenance Plan ." State Implementation Plan. Volume 2 Section 4.58 Appendix D9-2.

[5] Metro. "TPAC Meeting Summary." January 4, 2013. http://www.oregonmetro.gov/index.cfm/go/by.web/id=31965

[6] Metro."TPAC Meeting Summary." January 25, 2013. http://www.oregonmetro.gov/index.cfm/go/by.web/id=31965

- Rewriting the Performance Metrics of the TCM. This substitution would modify the existing performance standards for the three TCMs.
- An alternative as proposed by TPAC. This substitution would explore a proposal identified by TPAC.

At the January 25, 2013 meeting, members of TPAC selected combining the three TCMs into a single TCM substitution. However, consultation with EPA recommended Metro, DEQ and TriMet pursue a different TCM substitution option. After several discussions, Metro, DEQ, and TriMet returned to TPAC at the April 26, 2013 meeting outlining the circumstances and recommended readjusting the calculation method for the Transit Service Increase TCM as the proposed substitution.[7] At the April 26, 2013 meeting, TPAC members agreed to move forward readjustment method and allowed staff to develop the preferred TCM substitution method identified below.

Table 1. Existing TCM and Preferred Substitute TCM

	Existing Transit Service Increase TCM	**Preferred Substitute Transit Service Increase TCM**
	"Regional transit service revenue hours (weighted by capacity) shall be increased 1.0% per year. The increase shall be assessed on the basis of a 5 year rolling average of actual hours for assessment conducted between 2006-2017. Assessments made for the period through 2008 shall include the 2004 opening of Interstate MAX."	"Regional transit service revenue hours (weighted by capacity) shall be increased 1.0% per year. The increase shall be assessed on the basis of cumulative average of actual hours for assessment conducted for the entire second ten-year Portland Area Carbon Monoxide Maintenance Plan (2007 – 2017). Transit service increase will be assessed on the basis of fiscal year (July 1- June 30) beginning with FY 2008."
Geography TCM is Applicable	Portland Metropolitan Region	Portland Metropolitan Region
Implementing Agency	TriMet	TriMet

With approval from TPAC, staff has undertaken an analysis to demonstrate the proposed TCM substitution will meet EPA and DEQ requirements. Upon approval by TPAC that the TCM substitution analysis satisfactorily meets the DEQ and EPA requirements, the TCM substitution process will move forward with DEQ taking on the process to have the substitute TCM adopted by the Environmental Quality Commission (EQC). Upon EQC adoption, the existing TCM will be rescinded. The adoption process entails public comment, which would occur through summer 2013. In fall 2013, the TCM substitution will return to Metro for TPAC, JPACT and Metro Council action. Following TPAC, JPACT, and Metro Council actions, the EQC will take action to adopt the substitute TCM. DEQ and Metro will submit documentation to EPA for concurrence. For more information, see **Attachment A** for the TCM substitution timeline.

Implementation Schedule

Under the existing Transit Service Increase TCM, the language identifies an annual implementation schedule from 2006-2017. The beginning year, 2006, of the annual implementation schedule is one year prior to the approved second ten-year Portland Area Carbon Monoxide Maintenance Plan. The

[7] Metro. "TPAC Meeting Summary." April 26, 2013. http://www.oregonmetro.gov/index.cfm/go/by.web/id=31965

preferred TCM substitution identifies an annual implementation schedule for the entire second ten-year Portland Area Carbon Monoxide Maintenance Plan. The second ten-year Portland Area Carbon Monoxide Maintenance Plan is in effect from November 2007 – October 2017. Since the time frame for existing and proposed substitute TCM overlap the same ten-year period, the implementation schedule of the proposed substitute TCM is consistent with the existing TCM.

Evidence of Financial Ability and Authority to Implement the Preferred TCM Substitution

TriMet is a municipal corporation of the State of Oregon. Through enabling legislation ORS 267, TriMet has broad powers to provide mass transportation on behalf of the district.[8] Therefore, TriMet, as a transit service provider, has the authority to implement the proposed TCM substitution.

TriMet staff has confirmed expansions to date, budget forecast, and financial projections from now through 2017 to determine the following year-to-year service changes.[9] Though TriMet expects to reduce structural costs and identify additional resources to increase service well beyond these levels in the long-term, the projections TriMet has used for these calculations are the more conservative financial plan projections underlying its approved FY2014 budget.[10] The following table showing the year-to-year change in transit service illustrates that under the proposed TCM substitution the Transit Service Increase TCM performance standard has been met in previous years and that the projected future years annual transit service increase is expected to meet the proposed TCM substitution performance standard.

Projected Cumulative Transit Increase (The uppermost figures in columns C - L show the cumulative average annual service increase).
Portland Area Carbon Monoxide Maintenance Plan Period is from November 1, 2007 - October 2, 2017

Percent Change year-to-year	Fiscal Year										
22.0%	1999										
5.3%	2000										
1.6%	2001										
4.8%	2002										
2.3%	2003										
0.9%	2004										
5.4%	2005										
-1.6%	2006										
1.4%	2007										
3.3%	2008	3.34%									
3.4%	2009	3.35%	3.35%								
3.3%	2010	3.32%	3.32%	3.32%							
-5.0%	2011	1.24%	1.24%	1.24%	1.24%						
1.0%	2012	1.20%	1.20%	1.20%	1.20%	1.20%					
1.0%	2013 PROJ	1.16%	1.16%	1.16%	1.16%	1.16%	1.16%				
1.0%	2014 PROJ	1.13%	1.13%	1.13%	1.13%	1.13%	1.13%	1.13%			
1.4%	2015 PROJ	1.17%	1.17%	1.17%	1.17%	1.17%	1.17%	1.17%	1.17%		
4.9%	2016 PROJ	1.58%	1.58%	1.58%	1.58%	1.58%	1.58%	1.58%	1.58%	1.58%	
1.0%	2017 PROJ	1.52%	1.52%	1.52%	1.52%	1.52%	1.52%	1.52%	1.52%	1.52%	1.52%

[8] State of Oregon. Oregon Statute Chapter 267 – Mass Transit.
[9] TriMet. Annual Budget and Financial Forecast, 2013.
[10] Ibid.

Additionally, see **Attachment B**, a letter of commitment from TriMet in support of the TCM substitution and the substitution process.

Demonstration of Equivalent Carbon Monoxide Emissions Reduction Benefit for Preferred TCM Substitution

To demonstrate the preferred substitute TCM provides equal or greater carbon monoxide emissions reduction benefit, the same methodology was applied in calculating the emissions reduction benefit for the existing TCM to the preferred substitute TCM. The inputs to calculate the existing and proposed substitute TCM reflect the latest planning assumptions and the new MOVES2010 carbon monoxide emissions rate. More details regarding TCM substitutions technical analysis methodology and assumptions can be found in **Attachment C**.

Table 2. Preferred TCM Substitution Demonstration of Equivalent or Greater Carbon Monoxide Emissions Reduction Benefits

Transportation Control Measure (TCM)	Performance Standard	Calculation of TCM Emissions Reduction Benefit	Original TCM Emissions Reduction Benefit
Increase transit service (Existing TCM)	Regional transit service revenue hours (weighted by capacity) shall be increased 1.0% per year. The increase shall be assessed on the basis of a 5-year rolling average of actual hours for assessments conducted between 2006 and 2017.	Additional Trips Generated Per Day: 3,221 Average Transit Trip Length: 6 miles 3,221 trips x 6 miles = 19,326 miles 19,326 miles x 9.546 grams per mile = 184,486 total grams 184,486 total grams/453.592 grams per pound = 406.7 pounds per day	406.7lb/day
Increase transit service (Proposed TCM Substitution)	Regional transit service revenue hours (weighted by capacity) shall be increased 1.0% per year. The increase shall be assessed on the basis of cumulative average of actual hours for assessment conducted for the entire Second Portland Area Carbon Monoxide Maintenance Plan (2007 – 2017). Transit service increase will be assessed on the basis of fiscal year (July 1-June 30) beginning with FY 2008.	Additional Trips Generated Per Day: 3,221 Average Transit Trip Length: 6 miles 3,221 trips x 6 miles = 19,326 miles 19,326 miles x 9.546 grams per mile = 184,486 total grams 184,486 total grams/453.592 grams per pound = 406.7 pounds per day	406.7 lb/day

Based on the results of the carbon monoxide emissions reduction benefit analysis, the proposed TCM substitution will provide equal carbon monoxide reduction benefit as the existing TCM.

Since the proposed TCM substitution is a minor adjustment to the method of calculating the annual transit service increase (from a rolling average to a cumulative average) to determine if the performance standard has been achieved no change is observed between the existing TCM and the proposed substitute TCM in carbon monoxide emissions reduction benefits. This is because the original methodology assumed a constant ratio between a 1.0 percent annual transit service increase and the resulting amount of vehicle trips diverted. If a 1.0 percent annual transit service increase occurred then the TCM and emissions reduction benefits has been achieved. Since the proposed TCM substitution does not change the performance standard of 1.0 percent annual transit service increase, but only the method of calculating the service increase, the number of vehicle trips diverted do not change. This does not end up changing the inputs in calculating the emissions reduction benefits.

More details regarding TCM substitutions technical analysis methodology can be found in **Attachment C**.

While the carbon monoxide emissions reduction benefit analysis complies with EPA's and DEQ's requirements for the analysis methods, the requirements applied to the methodology limits the region's ability to show the true nature of emissions reduction benefits gained since the implementation of the TCM in 2007. The recent economic downtown forced a significant cut to transit service after several years of high transit service growth. Nonetheless, ridership and therefore ultimately diverted trips have increased even during the recession. This demonstrates while transit service may fluctuate, air quality benefits are still gained. The cumulative average method more accurately reflects the lasting positive benefits and long-term investments the region has made towards transit, including a reduction of carbon monoxide emissions and overall improved air quality.

Request
Metro, DEQ, and TriMet recommend TPAC approve the proposed TCM substitution analysis satisfactorily meets all DEQ and EPA requirements and approve the TCM substitution process to move forward towards EQC adoption.

Next Steps
Metro, DEQ, and TriMet staff will provide an update on the status of the TCM substitution process at the June JPACT meeting. Following, DEQ will prepare the necessary documentation and undergo a public comment process to prepare for the EQC adoption. See **Attachment A** for the TCM substitution timeline.

Attachment A
Metro TCM Substitution Process Timeline
Portland Area Carbon Monoxide Maintenance Plan

4/26/13	TPAC approval of revised concept for substitute TCMs
5/31/13	TPAC approves substitute TCM
6/13/13	JPACT advised of substitute TCM as an informational item
7/15/13	Rulemaking Notice to Secretary of State Bulletin.
7/15/13	Newspaper notice, email notice to interested persons
8/1/13	Notice published in S.O.S. Bulletin
8/15/13	Public hearing
8/19/13	Close of comment period
9/11/13	Rule adoption staff report to DEQ Director's Office
9/18/13	DEQ's response to comments sent to EPA, Metro and ODOT
9/25/13	Adoption package mailed to EQC
9/27/13	New TCM presented for TPAC approval
10/10/13	New TCM presented for JPACT approval
10/10/13 or 10/17/13	New TCM presented for Metro Council approval
10/16/13	Substitute TCM presented for EQC approval
10/21/13	DEQ sends concurrence letters to Metro and EPA
10/28/13	EPA sends concurrence letters to Metro and DEQ (TCM can be applied at this point.)
10/30/13	DEQ submits substitute TCM to EPA

TRIMET

May 20, 2013

Tom Hughes
Metro Council President
600 NE Grand Ave
Portland, OR 97232-2736

Re: Transportation Control Measures Substitution Process and TriMet

Dear Council President Hughes,

My staff has been working with Metro, DEQ and EPA to revise the regional Transportation Control Measures (TCM) with respect to increasing transit service intended to reduce regional carbon monoxide (CO) emissions. TriMet supports the proposed TCM substitution process to revise the existing TCM. This letter details past and expected future performance for the TCM specifically related to growth in transit service.

The table below shows changes in transit service weighted by capacity for the CO maintenance plan period. As you know, without structural cost changes, TriMet would experience service cuts in future years beyond 2017. However, TriMet expects to reduce our structural costs and identify additional resources to increase service well beyond these levels to meet the regional goals to triple transit, walking, and bicycling mode shares by 2035. For now, the projections TriMet used for these calculations are the conservative financial plan projections underlying its approved FY2014 budget.

The following table illustrates that in previous years the Transit Service Increase TCM performance standard has been met and that the projected future years' service is expected to meet the substitute TCM performance standard.

Fiscal Year	Annual weighted change in revenue hours	Total cumulative weighted change in revenue hours
2008	3.34%	3.34%
2009	3.37%	3.35%
2010	3.26%	3.32%
2011	-5.01%	1.24%
2012	1.03%	1.20%
2013	0.97%	1.16%
2014 PROJ	0.97%	1.13%
2015 PROJ	1.43%	1.17%
2016 PROJ	4.88%	1.58%
2017 PROJ	0.97%	1.32%

Sincerely,

Neil McFarlane
General Manager

CC: JPACT – Joint Policy Advisory Committee on Transportation
TPAC – Transportation Policy Alternatives Committee

Attachment C – Technical Analysis of Proposed Transit Service Increase TCM Substitution for the Portland Metropolitan Region

Background

Clean Air Act section 176(c)(8) allows regions to employ a "substitution," when air quality and transportation planning agencies find it appropriate to modify or replace the original transportation control measures (TCMs) in an air quality plan.[1] The Oregon Department of Environmental Quality (DEQ), in conjunction with Metro, developed a substitution policy and process that was codified with the adoption of the Portland Area Carbon Monoxide Maintenance Plan.[2] A TCM substitution allows an existing TCM to be replaced with another TCM of equal or greater emissions reduction. To undergo a TCM substitution, the process entails consultation with regional stakeholders, conducting technical analysis demonstrating equivalent or greater emissions reduction, public comment, and concurrence from Metro, Oregon State Department of Environmental Quality (DEQ), and the U.S. Environmental Protection Agency (EPA).[3]

The Portland Metropolitan region proposed undergoing a TCM substitution due to a potential shortfall in meeting the Transit Service Increase TCM. The following outlines the process undertaken to demonstrate the proposed substitute TCM will provide an equal or greater carbon monoxide emissions reduction benefit.

Portland Metropolitan Region's Transportation Control Measures

As an EPA designated maintenance area for carbon monoxide, the Portland Metropolitan region is required to develop and implement strategies to reduce the amount of criteria pollutants released from transportation sources.[4] The region identified and committed to three transportation control measures (TCMs) to help mitigate impacts of criteria pollutants from transportation sources.[5] Metro and regional partners are responsible for implementing all of its TCMs to meet federal and state requirements. The three TCMs are found in Table 1.

Table 1. Transportation Control Measures and Performance Standards

Transportation Control Measure (TCM)	Performance Standard	Emissions Reduction Benefit
Increase transit service	Regional transit service revenue hours (weighted by capacity) shall be increased 1.0% per year. The increase shall be assessed on the basis of a 5-year rolling average of actual hours for assessments conducted between 2006 and 2017.	246.3 lb/day
Program and construct bikeways and trails	Jurisdictions and government agencies shall program a minimum total of 28 miles of bikeways or trails within the Portland metropolitan area between the years 2006 through 2017. A cumulative average of 5 miles of	170.1 lb/day

[1] U.S. Environmental Protection Agency, "Guidance for Implementing the Clean Air Act Section 176(c)(8) Transportation Control Measure Substitution and Addition Provision." Page 1.
[2] Oregon Department of Environmental Quality, "Portland Area Carbon Monoxide Maintenance Plan ." State Implementation Plan. Volume 2 Section 4.58 Appendix D9-2.
[3] Ibid.
[4] Oregon Department of Environmental Quality, "Portland Area Carbon Monoxide Maintenance Plan ." State Implementation Plan. Volume 2 Section 4.58 Page 21.
[5] Ibid.

	bikeways or trails per biennium must be funded from all sources from each MTIP.	
Program and construct pedestrian paths	Jurisdictions and government agencies shall program at least nine miles of pedestrian paths in mixed-use centers between the years 2006 through 2017, including the funding of a cumulative average of 1 and 1/2 miles in each biennium from all sources in each MTIP.	.9 lb/day

Proposed TCM Substitutions

In anticipation the region may not meet the performance standard for the Transit Service Increase TCM, TPAC recommended Metro, DEQ and TriMet to undergo EPA's TCM substitution process. Through a collaborative process and in consultation with EPA, the following TCM substitution is proposed:

Existing Transit Service Increase TCM Language	Proposed Substitute Transit Service Increase TCM Language
"Regional transit service revenue hours (weighted by capacity) shall be increased 1.0% per year. The increase shall be assessed on the basis of a 5 year rolling average of actual hours for assessment conducted between 2006-2017. Assessments made for the period through 2008 shall include the 2004 opening of Interstate MAX."	"Regional transit service revenue hours (weighted by capacity) shall be increased 1.0% per year. The increase shall be assessed on the basis of cumulative average of actual hours for assessment conducted for the entire second ten-year Portland Area Carbon Monoxide Maintenance Plan (2007 – 2017). Transit service increase will be assessed on the basis of fiscal year (July 1- June 30) beginning with FY 2008."

The proposed substitute TCM uses a cumulative average to-date to determine whether a 1.0 percent annual transit service increase has been achieved. This is similar as the existing TCM, which requires a 1.0 percent annual transit service increase, but the existing TCM is based on a rolling five year average of past transit service. Using the new methodology of a cumulative average accounts for all years-to-date when calculating the whether 1.0 percent service increase has been achieved. The cumulative average method for the Transit Service Increase TCM provides a longitudinal look at whether the TCM is being met throughout the life of the maintenance plan rather than a five-year snapshot.

Methodology, Emissions Model Update, and Latest Planning Assumptions Update for Calculating the Carbon Monoxide Emissions Reductions Benefit

To employ a TCM substitution, EPA and DEQ requires the new TCM meet or exceed the emission reduction benefit of the replaced TCM. However, the process requires the demonstration of equivalent carbon monoxide emissions reductions to use updated planning assumptions.[6]

Methodology

Each TCM in the regional air quality plan was assigned a performance standard as a means of measuring and monitoring the region's commitment to reducing carbon monoxide emissions. The State Implementation Plan (SIP) which serves as the statewide air quality plan established the

[6] U.S. Environmental Protection Agency, "Guidance for Implementing the Clean Air Act Section 176(c)(8) Transportation Control Measure Substitution and Addition Provision." Page 6.

methodology to calculate the emission reduction benefits of TCMs.[7] Since of premise of the proposed TCM substitution is a modification to how the TCM annual transit service increase is calculated, the emissions reduction benefit methodology was not modified. The same emissions reduction methodology outlined in the SIP was used to calculate the carbon monoxide emissions reduction benefit for the updated existing TCM and proposed TCM substitution.

For the Transit Service Increase TCM, the methodology entails:

1) Estimating the number of vehicle trips which are diverted to transit by meeting the performance standard of the TCM; and
2) Identifying the average length of transit trip.[8]

Using the estimated number of diverted vehicle trips, the average transit trip length, and a carbon monoxide emissions reduction rate, the carbon monoxide emissions reduction benefit is calculated as follows:

1) X number of diverted vehicle trips from meeting transit performance standard (per day) x average length of transit trip (in miles) = X number miles diverted per day
2) X number miles diverted x CO rate (in grams per mile) = total CO grams per day
3) X total CO grams per day/453.592 grams per pound = X total CO pounds per day[9]

Assumptions

Per EPA and DEQ rules, the latest planning assumptions must be used to when conducting a TCM substitution analysis.[10] In the methodology of calculating the carbon monoxide emissions reduction benefit for the existing and the proposed substitute TCM, there are two areas where the latest planning assumptions can be reflected: the number of diverted vehicle trips and the average transit trip length.

In 2011, Metro conducted an update to the Oregon Household Activity Survey (OHAS). The OHAS provides information regarding the region's travel behavior and habits. The 2011 OHAS indicate the average transit trip length increased from 5.9 miles to 6 miles.[11] The updated average trip length was incorporated in the analysis of the carbon emissions reduction benefit for the proposed substitute TCM and the existing TCM.

The existing Transit Service Increase TCM used 2003 reported revenue hours to determine the diverted vehicle trips diverted by meeting the Transit Service Increase TCM performance standard of 1.0% annual service increase. TriMet provided 2012 revenue hours which were used to update and determine the number of vehicle trips.[12] Table 2 identifies the assumptions in the diverted vehicle trips and average length used in the analysis.

Table 2. Transit Service Increase TCM Assumptions

[7] Oregon Department of Environmental Quality, "Portland Area Carbon Monoxide Maintenance Plan ." State Implementation Plan. Volume 2 Section 4.58 Appendix D9-3.
[8] Ibid.
[9] Ibid.
[10] U.S. Environmental Protection Agency, "Guidance for Implementing the Clean Air Act Section 176(c)(8) Transportation Control Measure Substitution and Addition Provision." Page 6.
[11] Metro. Oregon Household Activity Survey, 2011.
Metro. Oregon Household Activity and Travel Survey, 1994.
[12] TriMet. Annual Budget and Financial Forecast, 2012.

Assumption	Existing Transit Service Increase TCM	Existing Transit Service Increase TCM (updated with latest planning assumptions) and Proposed Substitute Transit Service Increase TCM
Diverted Trips	TriMet reported 2003 total revenue hours was 1,677,156 resulted 88,863,600 boardings/trips. Assuming ratio of revenue hours to ridership is constant, one percent change in 2003 reported revenue hours results in an annual ridership of 89,751,153. Subtracting the difference results in an estimate of a one year increase of yearly ridership 888,553, which on a daily basis would be an increase of 2,843 riders. Assuming each rider equates to one diverted vehicle trip, the daily diverted trip for meeting the performance standard is 2,843.	TriMet reported 2012 total revenue hours was 1,600,132 resulted 101,210,444 boardings/trips. Assuming ratio of revenue hours to ridership is constant, one percent change in 2012 reported revenue hours results in an annual ridership of 102,2018,644. Subtracting the difference results in an estimate of a one year increase of yearly ridership 1,008,200, which on a daily basis would be an increase of 3,221 riders. Assuming each rider equates to one diverted vehicle trip, the daily diverted trip for meeting the performance standard is 3,221.
Average Trip Length	5.9 miles – 1994 Oregon Household Activity Survey	6.0 miles – 2011 Oregon Household Activity Survey

Model Assumptions

To ensure consistency between the carbon monoxide emissions reduction benefit established with MOBILE6.2, the MOVES2010 conversion incorporated the same base year assumptions used in MOBILE6.2. MOVES2010b was run in the emission rates mode at the county scale for the 24-hour January weekday in 2005 and was configured to produce CO rates for passenger cars and passenger trucks on urban roads. The County Data Manager was populated with inputs from Metro's most recent conformity-related MOBILE6.2 run, converted to the formats required by MOVES in accordance with EPA technical guidance. MOVES was run for three custom counties representing the various inspection and maintenance regimes that are represented by vehicles traveling in the Portland metro area: Oregon-inspected, Washington-inspected, and non-inspected. The rates produced by MOVES were stratified by hour, roadway type (restricted versus non-restricted access), average speed bin, and I/M area. Using VMT produced by the most recent conformity-related run of Metro's regional transportation model for 2005, weighted averages were applied to each of the above strata to arrive at a single CO rate (9.546 grams/mile).

Translating Performance Metrics into Emission Reduction Benefits

Prior to performing the analysis to compare the carbon monoxide emissions reduction benefit of the existing TCM and the proposed substitute TCM, Metro staff needed to update the emissions reduction benefits of the existing TCM to reflect the latest approved EPA emissions model.[13] In March 2010, EPA implemented new rules requiring the use of the MOVES2010 emissions model for

[13] U.S. Environmental Protection Agency, "Guidance for Implementing the Clean Air Act Section 176(c)(8) Transportation Control Measure Substitution and Addition Provision." Page 6.

all regional air quality conformity and state implementation plan analyses.[14] The carbon monoxide emissions reduction benefits were derived from the previous carbon monoxide rate which came from the MOBILE 6.2 emissions model. Using the same methodology established in the SIP to calculate the emissions reduction benefit for the Transit Service Increase TCM, staff employed the MOVES2010 carbon monoxide rate to convert the carbon monoxide emissions reduction benefit for the existing Transit Service Increase TCM. Additionally, the emissions reduction benefit also employed the latest planning assumptions. Tables 3 and 4 illustrate the results of the conversion.

Table 3. Original Carbon Monoxide Emission Reduction Benefit Calculation – MOBILE6.2

Transportation Control Measure (TCM)	MOBILE6.2 Carbon Monoxide (CO) Emission Rate	Calculation of TCM Emissions Reduction Benefit	MOBILE6.2 Emissions Reduction Benefit
Increase transit service	6.66 CO grams per mile	Diverted Trips Per Day: 2,843 Average Transit Trip Length: 5.9 miles 2,843 trips x 5.9 miles = 16.773.7 miles 16,773.7 miles x 6.66 grams per mile = 11,712.842 total grams 11,712.842 total grams/453.592 grams per pound = 246.3 lb/day	246.3 lb/day

Table 4. Carbon Monoxide Emission Reduction Benefit Calculation – MOVES2010 Conversion

Transportation Control Measure (TCM)	MOVES2010 Carbon Monoxide (CO) Emission Rate	Calculation of TCM Emissions Reduction Benefit	MOVES2010 Emissions Reduction Benefit
Increase transit service	9.546 CO grams per mile	Diverted Trips Per Day: 3,221 Average Transit Trip Length: 6 miles 3,221 trips x 6 miles = 19,326 miles 19,326 miles x 9.546 grams per mile = 184,486 total grams 184,486 total grams/453.592 grams per pound = 406.7 lb/day	406.7 lb/day

TCM Substitution Demonstration of Equivalent Carbon Monoxide Emissions Reduction Benefit

Demonstration of Carbon Monoxide Emissions Reduction Benefits for Proposed TCM Substitution
Table 5 illustrates the results of the carbon monoxide emission reduction benefit analysis and compares the emissions reduction benefit for the existing TCM (with updated planning assumptions) and proposed substitute TCM.

[14] U.S. Environmental Protection Agency, Policy Guidance on the Use of MOVES2010 and Subsequent Minor Revisions for State Implementation Plan Development, Transportation Conformity, and Other Purposes."

Table 5. TCM Substitution Demonstration of Equivalent Carbon Monoxide Emissions Reduction Benefit

Transportation Control Measure (TCM)	Performance Standard	Calculation of TCM Emissions Reduction Benefit	TCM Emissions Reduction Benefit
Increase transit service (Existing TCM adjusted for MOVES and latest planning assumptions)	Regional transit service revenue hours (weighted by capacity) shall be increased 1.0% per year. The increase shall be assessed on the basis of a 5-year rolling average of actual hours for assessments conducted between 2006 and 2017.	Additional Trips Generated Per Day: 3,221 Average Transit Trip Length: 6 miles 3,221 trips x 6 miles = 19,326 miles 19,326 miles x 9.546 grams per mile = 184,486 total grams 184,486 total grams/453.592 grams per pound = 406.7 pounds per day	406.7 lb/day
Increase transit service (Proposed TCM Substitution)	Regional transit service revenue hours (weighted by capacity) shall be increased 1.0% per year. The increase shall be assessed on the basis of cumulative average of actual hours for assessment conducted for the entire Second Portland Area Carbon Monoxide Maintenance Plan (2007 – 2017). Transit service increase will be assessed on the basis of fiscal year (July 1- June 30) beginning with FY 2008.	Additional Trips Generated Per Day: 3,221 Average Transit Trip Length: 6 miles 3,221 trips x 6 miles = 19,326 miles 19,326 miles x 9.546 grams per mile = 184,486 total grams 184,486 total grams/453.592 grams per pound = 406.7 pounds per day	406.7 lb/day

Based on the results of the carbon monoxide emissions reduction benefit analysis, the proposed TCM substitution will provide equal carbon monoxide reduction benefit as the existing TCM.

Since the proposed TCM substitution is a minor adjustment to the method of calculating the annual transit service increase (from a rolling average to a cumulative average) to determine if the performance standard has been achieved no change is observed between the existing TCM and the proposed substitute TCM in carbon monoxide emissions reduction benefits. This is because in the original methodology assumed a constant ratio that if 1.0 percent annual transit service increase occurred, the result is a set amount of vehicle trips diverted. Since the proposed TCM substitution does not change the performance standard of 1.0 percent annual transit service increase, but only the method of calculating the service increase, then the vehicle trips diverted do not change. This does not end up changing the inputs in calculating the emissions reduction benefits. However, the cumulative average method more accurately reflects the lasting positive benefits and long-term

investments the region has made towards transit. Subsequently this has led to a reduction of carbon monoxide emissions and overall improved air quality. The cumulative average method provides a more accurate reflection of the region's commitment to transit over the entire carbon monoxide maintenance plan.

600 NE Grand Ave
Portland, OR 97232-2736
www.oregonmetro.gov

Metro | *Memo*

Date: May 28, 2013
To: TPAC and interested parties
From: Lake McTighe, Transportation Planner
Subject: Regional Active Transportation Plan – Final Plan Elements

PURPOSE

- Provide Metro Transportation Policy Advisory Committee (TPAC) and interested parties with an overview of the major elements of the soon to be completed Regional Active Transportation Plan (the ATP) and next steps to move the plan through endorsement, adoption into the Regional Transportation Plan and Regional Transportation Functional Plan, and implementation.
- Receive input from TPAC members on the draft elements of the plan and identified implementation activities.

BACKGROUND

The 2035 Regional Transportation Plan identified the development of the ATP as an implementation activity. Metro and partners, primarily a Stakeholder Advisory Committee, have been working on the development of the ATP since January 2012. Metro staff presented to TPAC February 17, 2012, and provided an overview of the project objectives, timeline, and process for development of the ATP.

PLAN ELEMENTS

A final draft of the Regional ATP will be completed by June 30, 2013. The ATP will include the following elements. Staff will provide a broad overview of these elements.

- Maps of the recommended newly envisioned regional pedestrian and bicycle networks.
- Updated functional classifications for the bicycle networks and new functional classes for the pedestrian networks.
- Design guidelines for the regional bicycle and pedestrian networks, for each functional class.
- Principles for development of the regional active transportation network.
- Criteria for evaluating and prioritizing projects.
- Approach to categorizing active transportation projects for prioritization in the RTP.
- Recommended list of projects.
- Policy recommendations for inclusion in the RTP and the RTFP.
- Follow up and implementation activities.

Various elements of the ATP relate to and will be implemented through several Metro initiatives and projects.

- Regional Transportation Plan 2014 update – provides ATP policy changes, new concepts and maps; recommended project list will be available to local jurisdictions if they choose to add to the RTP. (Proposed updates to the Regional Transportation Functional Plan may be postponed to the 2018 update).
- Six Desired Outcomes – as they are implemented, ATP recommendations help the region and local communities achieve each desired outcome.

- Community Investment Initiative – ATP provides project priorities, information on the associated benefits of active transportation.
- Climate Smart Scenarios - Scenario C will utilize the recommended regional bicycle and pedestrian networks and implementation strategies.
- SW Corridor – will integrate regional bicycle parkway projects and design guidelines into project implementation.
- Powell-Division Transit Corridor – ATP provides background data on the corridor, design guidelines for bike and pedestrian; corridor project may provide opportunity to explore better design guidelines for transit and bicycle interaction.
- Trails Program (Sustainability Center)– ATP updates the regional trails map and helps set priorities for trail planning and implementation.
- Regional Data (Data Resource Center, Planning, Trails Program)– ATP updated pedestrian data and provides framework for future data collection and maintenance.

ENDORSEMENT/ADOPTION TIMELINE
May 23 Public Open House - *Stakeholder input on the plan*
May 31 TPAC – *Overview of plan elements, provide input*
June 5 MTAC - *Overview of plan elements, provide input*
June 6 ATP Stakeholder Advisory Committee meeting – *Final meeting*
June 13 JPACT - *Overview of plan elements, provide input*
June 25 Metro Council Work session - *Overview of final plan*

June 28 TPAC - *asked to provide recommendation to JPACT*
July 11 JPACT - *recommendation for endorsement*
July TBD MTAC - *asked to provide recommendation to MPAC*
July TBD- MPAC - *recommendation for endorsement*
Aug TBD Metro Council - *action on the plan (endorsement)*

August 2013-June 2014 - Recommended networks and policies will be incorporated into the RTP. Local jurisdictions will be able to add recommended projects into the RTP.

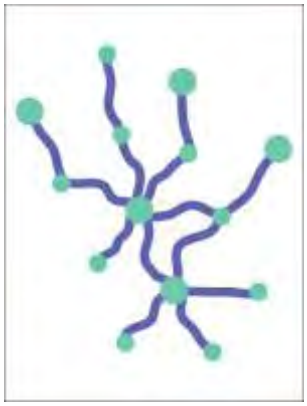
ATTACHMENTS
1. DRAFT Regional Bicycle and Pedestrian Recommended Networks – LINK to MAPS
2. DRAFT Network Concepts, Functional Classes and Design Guidelines
3. Principles and Criteria
4. DRAFT Approach to categorizing projects
5. DRAFT Initial Implementation Activities

Additional information (available at www.oregonmetro.gov/activetransport)
1. Link to Existing Conditions, Findings and Opportunities Report
2. Link to Regional Bicycle Network Evaluation Report
3. Link to Regional Pedestrian Network Analysis Report

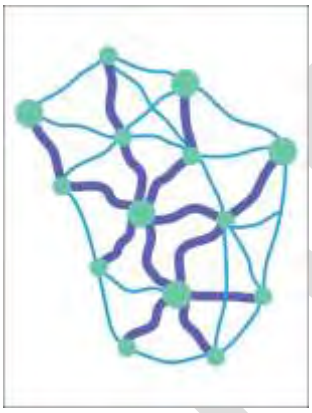
Regional Active Transportation Plan
Regional Bicycle and Pedestrian Network Concepts & Functional Classes

REGIONAL BICYCLE NETWORK CONCEPT

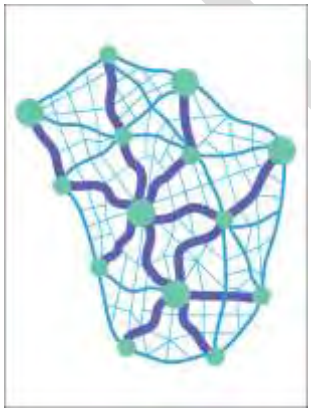
A dense network of off-street trails, in-street separated bikeways, bicycle boulevards and other bicycle facilities make up the regional bicycle network. Regional Bicycle Parkways form the spine of the regional bicycle network and connect **Regional Bicycle and Pedestrian Districts,** areas, such as the region's urban centers, where bicycle activity is highest or has the potential to be high. The regional bicycle network has a functional hierarchy similar to that of a street network. The functional classification system described below replaces the current bicycle network classification system in the Regional Transportation Plan.



Regional Bicycle Parkways are a new functional class for bicycles and are the highest functional class for bicycle facilities. Bicycle Parkways are high quality and high priority routes and make up the spine of the bicycle network – the highways of bicycle travel. They provide safe, comfortable and efficient bicycle travel within and between centers. They provide connections to key destinations and routes outside of the region. Parkways can be any type of facility designed to parkway standards. Facility types can include shared use paths, separated in-street bikeways and bicycle boulevards. Shared use paths identified as regional bicycle parkways are also regional pedestrian parkways. Adequate width and separation between pedestrians and bicyclists are provided on shared use path parkways.



Regional Community Bikeways can be any type of facility, including off-street trails, separated in-street bikeways and bicycle boulevards. On-street community bikeways located on arterial and collector streets are designed to provide separation from traffic on streets with higher auto speeds and volumes. Community bikeways provide connections to regional bicycle parkways and to destinations that parkways do not reach– they are the arterials of bicycle travel.



Local Bikeways trails, streets and connections not identified as regional bicycle parkway or community bikeway. Local bikeways are the local collectors of bicycle travel. They are typically shorter routes with less bicycle demand and use. These routes are not identified on the regional bicycle map, but are an important part of the system allowing for door to door bicycle travel.

Regional Active Transportation Plan
Regional Bicycle and Pedestrian Network Concepts & Functional Classes

REGIONAL PEDESTRIAN NETWORK CONCEPT

All streets (except limited access highways) and off-street trails are part of the regional pedestrian network. The Principal Regional Pedestrian Network is comprised of Regional Pedestrian Parkways linking Regional Pedestrian and Bicycle Districts and forms the spine of the entire regional pedestrian network. The regional pedestrian network is organized into functional classes; this is the first time the Regional Transportation Plan has provided functional classes for pedestrian facilities.

Regional Pedestrian Parkways are a new functional class for pedestrian facilities and the highest functional class for pedestrian facilities. They are high quality and high priority routes for pedestrian activity. A connected network of on and off-street parkways are anchored by pedestrian districts providing access to transit and key destinations in the region. Pedestrian districts are the region's urban centers where pedestrian activity is highest. On-street parkways mirror frequent transit routes. Shared use paths, which are also regional bicycle parkways, connect to the on-street network, transit and nature. Adequate width and separation between pedestrians and bicyclists are provided on shared use path parkways. The principal pedestrian network provides the spine for regional pedestrian corridors and local pedestrian corridors to make a complete regional pedestrian network.

Regional Community Pedestrian Corridors is the second highest functional class of the regional pedestrian network and the second highest priority. On-street community pedestrian corridors are any major or minor arterial on the regional arterial network that is not part of the principal regional pedestrian network. Off-street community pedestrian corridors are community trails/shared use paths not included in the principal regional pedestrian network. Community pedestrian corridors experience less transit access and/or pedestrian activity.

Local Pedestrian Connectors are all streets and trails not included in the principal regional or regional corridor networks. Local connectors experience lower volumes of pedestrian activity and on-street connectors are typically on residential and low-volume/speed roadways. Connectors, however, are an important element of the regional pedestrian network because they allow for door-to-door pedestrian travel.

Regional Active Transportation Plan
Regional Bicycle and Pedestrian Network Concepts & Functional Classes

FUNCTIONAL CLASS AND DESIGN TYPES

High level design guidelines were identified for completing and upgrading the region's bicycle and pedestrian networks. The guidelines serve as a checklist to ensure that the regional active transportation network is developed to make walking and bicycling easy, safe and comfortable. The guidelines should be used in conjunction with fully developed design guidelines such as those listed below. Note that Metro's guidelines recommend wider widths for shared use paths and separated bikeways.

- Metro Creating Livable Streets: Street Design Guidelines for 2040 (for pedestrian elements)
- National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide
- Washington County Bicycle Design facility Toolkit
- Oregon Department of Transportation Bicycle and Pedestrian Design Guide
- Institute of Transportation Engineers Designing Walkable Urban Thoroughfares: A Context Sensitive Approach
- AASHTO Guide for the Development of Bicycle Facilities, 4th Edition

Table 1: Regional Bicycle Network Functional Classification Design Types and Design Guidelines

Functional Class 1 (FC-1) **Regional Bicycle Parkway** The highest functional class for bicycle facilities. High quality and high priority routes, the highways for bicycle travel, connecting to and through regional centers. Parkways can be any type of facility designed to parkway standards, including off-street shared use paths, separated in-street bikeways and bicycle boulevards. Shared use path bicycle parkways are also pedestrian parkways.	**Functional Class 2 (FC-2)** **Community Bikeway** High-quality routes with seamless connections to bicycle parkways. Community bikeways can be any type of facility, including off-street trails, bike lanes and bicycle boulevards. On-street community bikeways located on arterial and collector streets are designed to provide separation from traffic on streets with higher auto speeds and volumes.	**Functional Class 3 (FC-3)** **Local Bikeway** Primarily local streets and trails providing the door to door connections for bicycle travel. They are typically shorter routes with less bicycle demand and use. Includes all streets and trails not identified as a bicycle parkway or community bikeway.
FC-1 Design Type A Off-street shared use path • Minimum width of 14'; additional width and bifurcation where expected demand warrants. • Marked high-visibility crosswalks with lighting at all crossings of collector and arterial roads, additional crossing features where appropriate. • Lighting of path is desirable. • Bike signals and detection at signals are desirable. • Way finding and bike parking are included. • Separation of pedestrians and bicyclists. • Seating and pull outs are provided.	FC-2 Design Type A Off-street • Preferred width of 12', minimum width of 10'. • Marked crosswalks with lighting at all crossings of collector and arterial roads, additional crossing features where appropriate. • Lighting of path may be desirable. • Way finding and bike parking are included.	FC-3 Design Type A Off-street • Local standards apply.

FC-1 Design Type B Low traffic street (ADT <6,000 and posted speed is 30 or less) • Where ADT <3,000, bicycle boulevard treatments including traffic calming and diversion measures may be appropriate. • Where bike boulevard treatments are not used, 7' bike lanes are preferred; 6' bike lanes are minimum treatment. Crossing treatments at all crossings of collector and arterial roads. • Context-based traffic calming is desirable. • Lighting along bikeway and at intersections.	FC-2 Design Type B Low traffic street (ADT <6,000 and posted speed is 30 or less) • Where ADT <3,000, bicycle boulevard treatments including traffic calming and diversion measures may be appropriate. • Where bike boulevard treatments are not used, 7' bike lanes are preferred; 5' bike lanes are minimum treatment • Crossing treatments at all crossings of arterial roads. • Context-based traffic calming is desirable. • Lighting along bikeway and at intersections.	FC-3 Design Type B Low traffic street • Local standards apply.
FC-1- Design Type C High traffic street (ADT >6,000 or posted speed is 35 or more) • Separation from vehicle traffic is critical. Use cycle tracks, buffered bike lanes (minimum 6' lane, 4' buffer) or protected bikeways such as a parallel path. Attention to treatment of intersections and driveways is critical. Preferential treatments such as green coloring, bike boxes, bike signals, turn queue boxes, and advance stop lines should be used as appropriate. • Arterial-type traffic calming is desirable. • Lighting along bikeway and at intersections.	FC-2 Design Type C High traffic street (ADT >6,000 or posted speed is 35 or more) • Separation from traffic is critical. Buffered bike lanes (minimum 6' lane, 4' buffer) or 7' bike lanes are preferred; 5' bike lanes are minimum treatment.). • Attention to treatment of intersections and driveways is desirable. Preferential treatments such as green coloring, bike boxes, bike signals, turn queue boxes, and advance stop lines may be used as appropriate. • Arterial-type traffic calming is desirable. • Lighting along bikeway and at intersections.	N/A

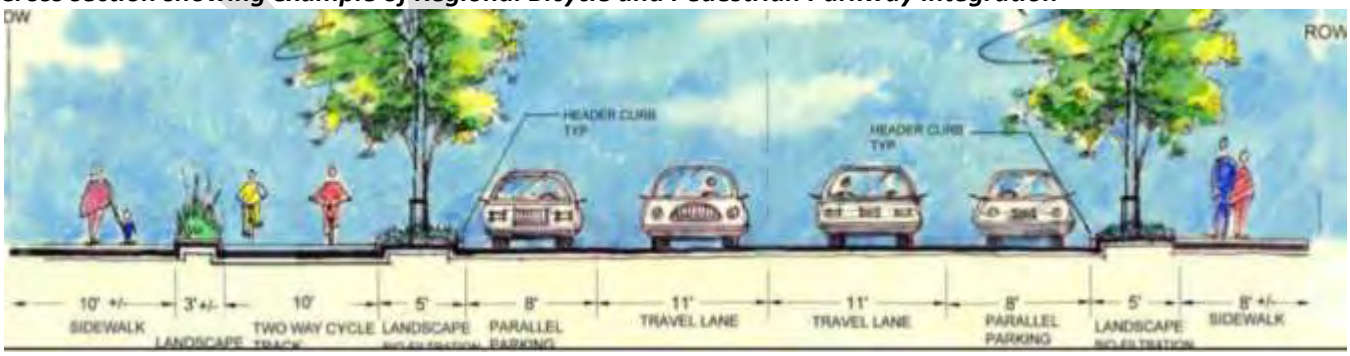
Table 2: Regional Pedestrian Network Functional Classification Design Types and Design Guidelines

Functional Class 1 (FC-1) **Regional Pedestrian Parkways and Districts** Highest functional class of pedestrian facilities for the regional network. Roadway corridors mirror frequent transit routes. Districts and corridors are areas with current or planned higher levels of pedestrian activity. Functional class 1 off-street shared use paths are also regional bicycle parkways.	**Functional Class 2 (FC-2)** **Community Pedestrian Corridors** Second highest functional class of the regional pedestrian network. On-street community pedestrian corridors are major or minor arterials on the regional arterial network that are not Regional Pedestrian Parkways. Off-street community pedestrian corridors are regional trails that are not Pedestrian Parkways.	**Functional Class 3 (FC-3)** **Local Pedestrian Connectors** All streets and trails/paths not included in the principal regional or regional corridor networks. Local connectors experience lower volumes of pedestrian activity and on-street connectors are typically on residential and low-volume/speed roadways. Allow for door-to-door pedestrian travel.
FC-1 Design Type A Off-street shared use path • Minimum width of 14'; additional width and bifurcation where expected demand warrants. • Marked crosswalks at all crossings of collector and arterial roads, additional crossing features where appropriate. • Marked high-visibility crosswalks with lighting at all crossings of collector and arterial roads, additional crossing features where appropriate. • Lighting of path is desirable. • Pedestrian countdown heads at all signals. • Short signal cycle lengths (90s or less), pedestrian-friendly timing, and lead pedestrian intervals at signals are desirable. • Separation of pedestrians and bicyclists. • Seating and pull outs are provided. • Way finding included.	FC-2 Design Type A Off-street shared use or pedestrian only path • Preferred width of 12', minimum width of 10'. • Marked crosswalks with lighting at all crossings of collector and arterial roads, additional crossing features where appropriate. • Lighting of path may be desirable. • Way finding included.	FC -3 Design Type A Off-street shared use or pedestrian only path • Local standards apply.

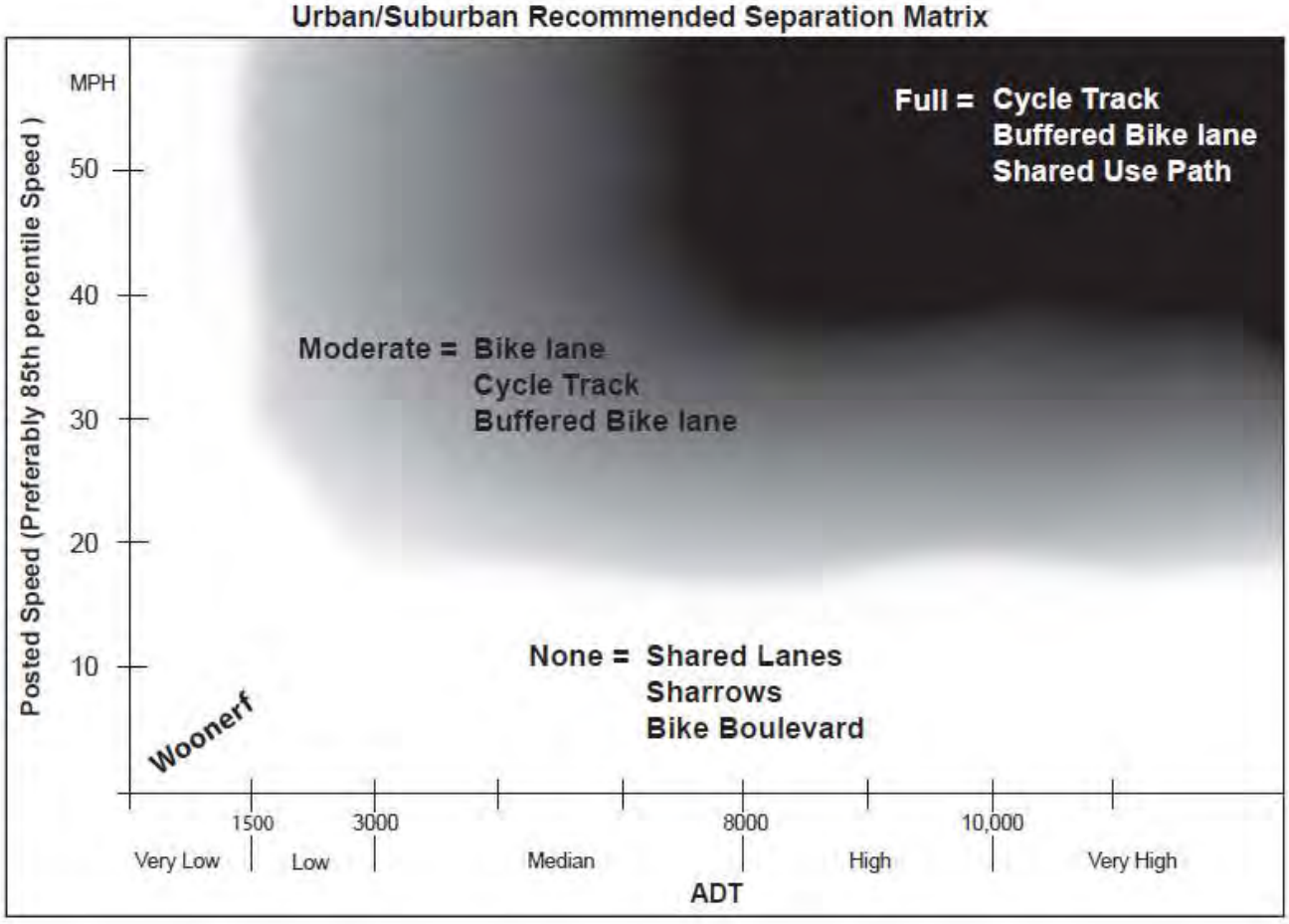
FC-1 Design Type B Low traffic street (ADT <12,000 and posted speed is 35 or less)	FC-2 Design Type B Low traffic street (ADT <12,000 and posted speed is 35 or less)	FC-3 Design Type B Low traffic street
• Minimum sidewalk plus buffer width of 10'. • Buffer width includes width of on-street parking, landscape buffer, furnishing zone; cycle track can serve as a buffer. • Pedestrian clear zone of 6' or more. • Street trees between roadway and pedestrian clear zone. • Marked crosswalks provided ≤530' spacing along corridor using context sensitive placement • Crossing features such as refuge islands, curb extensions, raised crosswalks, raised intersections, and beacons or signals where appropriate. • Lighting at all crosswalks. • Pedestrian-scale lighting along corridor. • Pedestrian countdown heads at all signals. • Short signal cycle lengths (90-s or less), pedestrian-friendly timing, and lead pedestrian intervals at signals are desirable. • Walkable street-fronting retail uses and on-street parking is desirable in centers and along Main Streets. • Medians desirable along corridors with 4+ lanes. • Minimize driveway count and width. • Context-based traffic calming is desirable.	• Minimum sidewalk plus buffer width of 10'. • Buffer width includes width of on-street parking, landscape buffer, furnishing zone; cycle track can serve as a buffer. • Pedestrian clear zone of 5' or more. • Street trees between roadway and pedestrian clear zone. • Marked crosswalks provided every ≤530'along corridor using context sensitive placement. • Crossing features such as refuge islands, curb extensions, and beacons or signals where appropriate. • Lighting at all crosswalks. • Pedestrian-scale lighting along corridor. • Pedestrian countdown heads at all signals. • Short signal cycle lengths (90-s or less), pedestrian-friendly timing, and lead pedestrian intervals at signals are desirable.	• Local standards apply.

FC- 1 Design Type C High traffic street (ADT >12,000 or posted speed is 40 or more) • Minimum sidewalk plus buffer width of 17’; raised cycle track can serve as buffer. • Buffer width includes width of on-street parking, landscape buffer, furnishing zone. • Pedestrian clear zone of 6’ or more. • Street trees between roadway and pedestrian clear zone. • Marked crosswalks provided ≤530’ spacing along corridor using context sensitive placement. • • Crossing features such as refuge islands, curb extensions, raised crosswalks, raised intersections, and beacons or signals where appropriate. • Lighting at all crosswalks. • Pedestrian-scale lighting along corridor. • Pedestrian countdown heads at all signals. • Short signal cycle lengths (90-s or less), pedestrian-friendly timing, and lead pedestrian intervals at signals are desirable. • Walkable street-fronting retail uses and on-street parking is desirable in centers and along Main Streets. • Medians desirable along corridors with 4+ lanes. • Minimize driveway count and width. • Context-based traffic calming is desirable.	FC- 2 Design Type C High traffic street (ADT >12,000 or posted speed is 40 or more) • Minimum sidewalk plus buffer width of 14’; raised cycle track can serve as buffer. • Buffer width includes width of on-street parking, landscape buffer, furnishing zone. • Pedestrian clear zone of 6’ or more. • Street trees between roadway and pedestrian clear zone. • Marked crosswalks provided ≤530’ spacing along corridor using context sensitive placement. • • Crossing features such as refuge islands, curb extensions, raised crosswalks, raised intersections, and beacons or signals where appropriate. • Lighting at all crosswalks. • Pedestrian-scale lighting along corridor. • Pedestrian countdown heads at all signals. • Short signal cycle lengths (90-s or less), pedestrian-friendly timing, and lead pedestrian intervals at signals are desirable. • Walkable street-fronting retail uses and on-street parking is desirable in centers and along Main Streets. • Medians desirable along corridors with 4+ lanes. • Minimize driveway count and width. • Context-based traffic calming is desirable.	N/A

Cross section showing example of Regional Bicycle and Pedestrian Parkway integration



Source: Livable Centers Initiative



Source: ODOT Bicycle and Pedestrian Design Guidelines

Separation Context Matrix

Context	Need for Separation
1. Land Use indicators	
Urban Center, CBD	Decreases
Suburban	Increases
Buildings at back of sidewalk	Decreases
Buildings set back from roadway (parking lots front street)	Increases
On Street Parking	Decreases
Short block length	Decreases
Long block length	Increases
2. Traffic speed/volume indicators	
Signal coordination timed at higher than posted speeds	Increases
Signal coordination timed at lower than posted speeds	Decreases
Peak Hourly Traffic Volume greater than 10%	Increases
3. Roadway characteristics	
Wide roadway / multiple travel lanes	Increases
Steep grades: uphill	Increases
Steep grades: downhill	Decreases
4. Bicycling demand indicators	
Popular Route to School	Increases
Provides continuity of bike lanes, routing or trail	Increases
Other high-use indicators	Increases

Source: ODOT Bicycle and Pedestrian Design Guidelines

Metro

DRAFT Regional Active Transportation Plan

Principles for the Regional Active Transportation Network
The following principles are used to **guide policies and development** of the regional active transportation network.

1. Cycling, walking, and transit routes are integrated and connections to regional centers and regional destinations are seamless.
2. Routes are direct, form a complete network, are intuitive and easy-to-use and are accessible at all times.
3. Routes are safe and comfortable for people of all ages and abilities.
4. Routes are attractive and travel is enjoyable.
5. Routes are integrated with nature and facility designs are context sensitive.
6. Relieves strain on other transportation systems.
7. Increases access to regional destinations for low income, minority, disabled, non-English speaking, youth and elderly populations.
8. Measurable data and analysis inform the development of the network and active transportation policies.
9. Implements regional and local land use and transportation goals and plans to achieve regional active transportation modal targets.

Regional Active Transportation Network Evaluation and Prioritization Criteria

Access. How well does the active transportation network improve access to destinations?

Safety. How well does the active transportation network make it safer to walk and ride a bike for all users, regardless of age and ability?

Equity. How well does the active transportation network increase access low income, minority, disabled, non-English speaking, youth and elderly populations?

Increased activity. By how much does the network increase the number of trips made by walking and bicycling?

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REGIONAL ACTIVE TRANSPORTATION PLAN

Criteria for Identifying Project Priority Categories

Improvements to the regional pedestrian and bicycle networks were evaluated to understand impacts on access to destinations (access), increasing access for underserved populations (equity), and safety. The measures listed below were used to sort projects into four prioritization categories.

Table 1: Criteria and Measures for Grouping Projects into Outcome Categories

Criteria		Measure
Completing the Regional Active Transportation Network	Pedestrian	Project is located on the regional pedestrian network. Priority is given to projects that complete Pedestrian Parkways and Districts.
	Bicycle	Project is located on the regional bicycle network. Priority is given to projects that complete Bicycle Parkways and Districts.
Access to destinations, including transit, via walking and bicycling.	Pedestrian	Project is on a corridor, trail or district where access to essential destinations within a one mile walk is increased for a high number of people.
	Bicycle	Project is in a cycle zone with a high number of bicycle trips.
		Bicycle route has high modeled volumes.
		Project is in a cycle zone with high bicycling potential.
Equity. Access to destinations, including transit, via walking and bicycling for low income, minority, disabled, non-English speaking, youth and elderly populations.	Pedestrian	Project is on a corridor, trail or district with above average share of underserved populations.
	Bicycle	Project is in a cycle zone with above average share of underserved populations
Safety. Increased safety of the pedestrian and bicycle network.	Pedestrian	Project provides separation/protection from traffic or overcomes a barrier to travel
	Bicycle	Project provides separation/protection from traffic or overcomes a barrier to travel
Increased Activity. Increased levels of bicycling and walking.	This criterion is addressed by the access criterion. Increase in bicycling trips was measured using the bicycle modeling tools. The transportation modeling tools indicate an increase in walking in the region; the potential for increased walking activity is assumed with the increase in access to destinations.	

Pedestrian outcome categories

The Pedestrian Network Analysis evaluated the impact of improvements to regional pedestrian corridors, districts and trails for increasing access, equity and safety. The results of the evaluation were used to group the Pedestrian Parkways and districts and trails into outcome categories. Outcome categories are one way to understand the potential outcomes of improvements in different parts of the region using the criteria of **access, equity, safety and increased activity.**

Within the outcome categories pedestrian project that provides separation from traffic and/or removes a barrier, such as crossing a busy street, are considered to improve pedestrian safety. Increasing access for a high number of people in areas with essential destinations within walking distance is assumed to have the potential to increase walking activity.

The outcome categories and the areas they identify provide *broad brush* guidance for implementing the regional active transportation network.

Prioritization of projects

For the purposes of the Regional Active Transportation Plan, the recommended list of projects is prioritized using the outcome categories, with projects falling into category one being the highest priority. All projects included in the Regional Active Transportation Plan project list must be on the regional active transportation network. Other criteria, such as cost and feasibility are not considered in the prioritization.

Outcome categories

Category 1 areas - equity, improved access for the highest number of people and safety
Projects in these areas have the potential to increase access to destinations for underserved populations, increase access to destinations for a *high number* of people, thus having the potential to greatly increase levels of walking for daily needs, and improve safety by providing separation from traffic or overcoming barriers.

Category 2 areas –improved access for the highest number of people and safety
Projects in these areas primarily have the potential to increase access to destinations for a *high number* of people, thus having the potential to greatly increase levels of walking for daily needs, and improve safety by providing separation from traffic or overcoming barriers.

Category 3 areas – equity
Projects in these areas primarily increase access to destinations for areas with above average underserved populations and have the potential to increase levels of walking for daily needs, and improve safety by providing separation from traffic or overcoming barriers.

Category 4 areas– improving access and safety
Projects in these areas increase access to destinations and have the potential to increase levels of walking for daily needs, and improve safety by providing separation from traffic or overcoming barriers.

Table 2: Pedestrian Outcome Categories and Criteria

	Criteria
Category 1	Project is on a Pedestrian Parkway or Pedestrian District; AND Project is in a corridor, trail or district with above average % of underserved populations; AND Project is in a corridor, trail or district where improvements increase access for a high number of people; AND Project provides separation from traffic or overcomes a barrier.
Category 2	Project is on a Pedestrian Parkway or Pedestrian District; AND Project is in a corridor, trail or district where improvements increase access for a high number of people; AND Project provides separation from traffic or overcomes a barrier.
Category 3	Project is on a Pedestrian Parkway or Pedestrian District; AND Project is in a corridor, trail or district with above average % of underserved populations; AND Project provides separation from traffic or overcomes a barrier.
Category 4	Project is on the Regional Pedestrian Network ; AND Project is in a corridor, trail or district where improvements increase access; AND Project provides separation from traffic or overcomes a barrier.

Bicycle outcome categories

The Regional Bicycle Evaluation evaluated improvements to the regional bicycle network for increasing access, equity and safety. The results of the evaluation were used to group cycle zones and Bicycle Parkways into outcome categories. Outcome categories are one way to understand the potential outcomes of improvements to the bicycle network in different parts of the region using the criteria of **access, equity, safety and increased activity.**

Within the outcome categories bicycle projects that provides separation from traffic and/or removes a barrier, such as crossing a busy street, are considered to improve safety. The Bicycle Network Evaluation found that in areas with dense population, jobs and destinations and where density and connectivity of the bicycle network was improved that bicycling activity also, in general, increased. Increased access is measured by increased levels of bicycling activity.

The outcome categories and the areas they identify provide *broad brush* guidance for implementing the regional active transportation network.

Prioritization of projects

For the purposes of the Regional Active Transportation Plan, the recommended list of projects is prioritized using the outcome categories, with projects falling into category one being the highest priority. All projects included in the Regional Active Transportation Plan project list must be on the regional active transportation network. Other criteria, such as cost and feasibility are not considered in the prioritization.

Outcome categories

Category 1 areas - equity, improved access for the highest number of people and safety

Projects in these areas have the potential to increase access to destinations for underserved populations, increase access to destinations for a *high number* of people, thus having the potential to greatly increase levels of bicycling for daily needs, and improve safety by providing separation from traffic or overcoming barriers.

Category 2 areas –improved access for the highest number of people and safety

Projects in these areas primarily have the potential to increase access to destinations for a *high number* of people, thus having the potential to greatly increase levels of bicycling for daily needs, and improve safety by providing separation from traffic or overcoming barriers.

Category 3 areas – equity

Projects in these areas primarily increase access to destinations for areas with above average underserved populations and have the potential to increase levels of bicycling for daily needs, and improve safety by providing separation from traffic or overcoming barriers.

Category 4 areas– improving access and safety

Projects in these areas increase access to destinations and have the potential to increase levels of bicycling for daily needs, and improve safety by providing separation from traffic or overcoming barriers.

Table 3: Bicycle Project Outcome Categories and Criteria

	Criteria
Category 1	Project is on a Regional Bicycle Parkway or District ; AND Project is in a cycle zone with above average % of underserved populations; AND Project is in a cycle zone with high bicycling activity; OR Project is in a cycle zone with high bicycling potential; OR Project is identified as a high usage route; AND Project provides separation from traffic or overcomes a barrier.
Category 2	Project is on a Regional Bicycle Parkway or District; AND Project is in a cycle zone with the highest bicycling activity; OR Project is in a cycle zone with high bicycling potential AND Project provides separation from traffic or overcomes a barrier.
Category 3	Project is on a Regional Bicycle Parkway or District; AND Project is in a cycle zone with above average % of underserved populations; AND Project provides separation from traffic or overcomes a barrier.
Category 4	Project is on the Regional Bicycle Network; AND Project is in a cycle zone with medium-low bicycling activity; OR Project is in a cycle zone with medium-low bicycling potential AND Project provides separation from traffic or overcomes a barrier.

Regional Active Transportation Plan Implementation Activities

Recommended pedestrian and bicycle network visions, policies and projects that will help the region achieve it six desired outcomes and transportation goals and targets are included in the Regional Active Transportation Plan (ATP). The following implementation activities have been identified to implement the recommendations of the ATP.

A. Incorporation of the ATP policies and projects into the Regional Transportation Plan and the Regional Transportation Functional Plan during the 2014 update and into other regional projects

Included in post-adoption work plan, 2013-2014

1. Local jurisdictions can add recommended projects into the Regional Transportation Plan financially constrained or state project list.
2. Adopt updated pedestrian, bicycle and integrated active transportation maps, concepts, functional classes and design guidelines into the Regional Transportation Plan.
3. Incorporate language and policy changes into the Regional Transportation Plan.
4. Use regional pedestrian and bicycle networks in Climate Smart Communities Scenario C.
5. Integrate regional bicycle and pedestrian parkway projects and design guidelines into SW Corridor plan and utilize project priorities for Powell-Division Transit Project and Community Investment Initiative.
6. Local jurisdictions update TSPs with ATP recommendations.

Additional identified implementation activities not currently in work program

1. *Support local jurisdiction staff to add ATP recommended projects to the RTP and local project lists.*
2. *Communicate with Metro policy advisory committees, local elected officials, decision makers and other stakeholder groups and interested parties on the proposed changes and recommendations in the ATP, and importance of implementing the ATP and benefits of active transportation.*
3. *Further develop performance measures (such as a complete networks policy) for tracking completion and performance of the transportation system to meet active transportation goals.*
4. *Adopt proposed policy/required action changes to the Regional Transportation Functional Plan.*
5. *Work on proposal for RTP project prioritization and submittal criteria, perhaps setting modal investment targets based on projects contribution to meeting the RTP non-sov modal targets.*

B. Communicate, advocate, participate and facilitate the implementation of the ATP with regional partners and through local plans, project lists and activities

Included in post-adoption work plan, 2013-2014

1. (No activities included in current work plan)

Additional identified implementation activities not currently in work program

1. *Support an ongoing regional active transportation forum, building on success of SAC.*
2. *Convene partners and stakeholders periodically to build support and maintain momentum.*
3. *Coordinate and develop partnership with ODOT Active Transportation Program.*

4. *Remain a participating partner in developing the Oregon Active Transportation Summit.*
5. *Participate in development of ODOT Bicycle and Pedestrian Plan.*
6. *Participate in local pedestrian and bicycle advisory committees.*
7. *Participate in local TSP updates to include ATP recommendations.*

C. Support best practices for implementing a regional active transportation network that is available for all ages and abilities and helps achieve desired regional outcomes

Included in post-adoption work plan, 2013-2014

1. (No activities included in current work plan)

Additional identified implementation activities not currently in work program

1. *Work with partners on update of ORS 366.514 Oregon's walking and bicycling bill to require roadway maintenance projects to bring roadways up to design standards for pedestrians and bicyclists.*
2. *Metro resolution supporting and recommending use of NACTO Urban Bikeway Design Guide.*
3. *Develop guidelines for transit and bicycle parkway interaction.*
4. *Develop guidelines for regional trails as transportation facilities.*
5. *Develop parking data collection to support local jurisdictions develop parking management plans and achieve economic development goal (Parking management is a key tool in increasing levels of walking and bicycling).*
6. *Develop and coordinate regional bicycle and pedestrian counting data collection program and support development of pedestrian and bicycling modeling tools.*
7. *Identify resources and partners to maintain and enhance regional bicycle and pedestrian facility data.*
8. *Participate in PORTAL technical advisory committee and coordinate with TRANS PORT.*
9. *Support continuing Metro's role in leading regional trail counting.*

D. Maintain existing levels of funding for active transportation, utilize existing funding effectively and efficiently, and partner on broader efforts to include active transportation in new funding initiatives

Included in post-adoption work plan, 2013-2014

1. Amend the MTIP process to provide for placement of conditions on funding for transportation improvements in the MTIP that require local governments to meet design standards for bicycle and pedestrian improvement and to include bicycle and pedestrian improvements in all roadway projects.

Additional identified implementation activities not currently in work program

1. *Partner with ODOT Active Transportation Program to maintain levels of funding for active transportation programs.*
2. *Develop a "Transit, Bicycle and Pedestrian Funding Guide" for partners.*
3. *Participate and coordinate with Community Investment Initiative to include regional bicycle and pedestrian priority infrastructure in package of improvements.*
4. *Coordinate and support active transportation elements of **potential new sources of** transportation funding.*

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Regional Active Transportation Plan
DRAFT Policy Recommendations and Actions

1.1 Make walking and bicycling the most convenient and enjoyable transportation choices for short trips.

Actions

1.1.1 Implement the regional active transportation network according to the Principles for the Regional Active Transportation Network.

1.1.2 Prioritize projects that connect people to destinations that serve essential daily needs.

1.1.3 Include way finding, street markings and clear connections to make the regional pedestrian and bicycle networks easy to navigate on foot or by bicycle. Provide data in an open format to support third-party mobile application and map development.

1.1.4 Implement recommendations of the Metro State of Safety Report.

1.1.5 Include education and encouragement in project scope to raise awareness and use of projects and networks when completed.

1.2 Build a well-connected regional network of complete streets and off-street paths that is integrated with transit and prioritize safe, convenient and comfortable pedestrian and bicycle access for all ages and abilities.

Actions

1.2.1 Adopt a complete streets policy into the Regional Transportation Plan.

1.2.2 Endorse use of complete streets checklist for planning and project development.

1.2.3 Prioritize pedestrian and bicycle travel on adopted regional pedestrian and bicycle routes.

1.2.4 Provide physically separated bicycle facilities on roadways with high traffic speeds and volumes.

1.2.5 Complete gaps and overcome barriers in the regional pedestrian network.

1.2.6 Encourage and support the use of the Active Transportation Plan design guidelines.

1.2.7 Endorse the use of the NACTO (National Association of City Transportation Officials) Bike Design Guide and Washington County Bike Design Tool Kit as best design standards.

1.2.8 Develop design guidelines for transit and bicycle parkway interaction.

1.2.9 Develop design guidelines for regional trails as transportation facilities.

1.2.10 Update local transportation system plans to include the regional pedestrian and bicycle networks.

1.2.11 Update Regional Transportation Plan project list to include projects to build out the identified pedestrian and bicycle networks.

1.2.12 Develop proposal Regional Transportation Plan project prioritization and submittal criteria, including setting modal investment targets based on projects contribution to meeting the non-single occupancy vehicle modal targets.

1.2.13 Coordinate with Regional Transportation Option program and grants to deliver complete corridors for active travel.
1.2.14 Coordinate with Transportation System Management Options program and grants to deliver complete corridors for active travel.
1.2.15 Update Regional Flexible Funds polices to include active transportation elements in all funded projects.

1.3 Ensure that the regional active transportation network equitably serves all people.

Actions

1.3.1 Encourage, partner, and utilize minority-owned, women-owned and emerging small businesses to plan and develop the regional active transportation networks.
1.3.2 Work with Transportation Management Associations and partner organizations to provide awareness programs and address barriers to active transportation for underserved groups.
1.3.3
1.3.4 Prioritize complete pedestrian and bicycle access to destinations in areas with above average underserved populations.
1.3.5 Develop best practices on engaging underserved communities on active transportation projects

1.4 Complete pedestrian and bicycle networks to match roadway network level of completeness.

Actions

1.4.1 Adopt a 'complete network' policy into the Regional Transportation Plan.
1.4.2 Adopt policy in the Regional Transportation Plan and Regional Transportation Functional Plan to bring up pedestrian and bicycle networks up to standard through maintenance roadway projects in addition to capital projects.
1.4.3 Include parallel and/or complementary pedestrian and bicycle routes with transit and roadway projects.

1.5 Utilize data and analysis to guide transportation investments.

Actions

1.5.1 Support collection and maintenance of regional pedestrian and bicycle data.
1.5.2 Work with stakeholders and partners to identify desirable and practical data to be collected and maintained at a regional level.
1.5.3 Develop a regional plan for bicycle count locations to support the regional bicycling modeling tools.
1.5.4 Develop method to count and estimate pedestrian activity to support development of regional pedestrian modeling tools.
1.5.5 Collaborate with local, state, and federal partners to develop new and refine existing transportation models and forecasting tools to accurately predict pedestrian and bicycle travel demand generated by capital and programmatic

improvements and to model system performances that include bicycling and walking.

1.5.6 Support the Oregon Household Activity Survey to include pedestrian and bicycle activity, including the relationship between bicycle and transit travel in the region.

1.5.7 Partner with health organizations to incorporate health outcomes into planning and funding decisions.

1.5.8 Further develop the regional Bicycle Comfort Index and a Pedestrian Comfort Index to help identify routes that do not meet design guidelines for people of all ages and abilities, and to inform design approaches for new routes and route upgrades.

Metro

Regional Active Transportation Plan
DRAFT Active Transportation Vision

Active transportation is a part of the region's vision for a complete transportation system

In 2035, convenient and safe access to active transportation has helped create and maintain vibrant communities in the region. Connected and safe pedestrian, bicycle and transit networks provide transportation choices. People of all ages and abilities can walk and bike easily and safely for many of their daily needs and a majority of the short trips in the region are made by bicycling and walking. Children enjoy independence walking and biking to school and elders are aging in place and can get around easily without a car. Active transportation contributes significantly to the region's economic prosperity. Household transportation costs are lowered, roadways are less congested and freight experiences less delay. People enjoy clean air and water, and because they incorporate physical activity into their daily routines they are healthier and happier.

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Date: May 23, 2013

To: JPACT and Metro Council

From: John Mermin, Senior Transportation Planner

Re: 2014 Regional Transportation Plan (RTP) work program

Introduction

In 2014, Metro is required to complete a periodic update of the Regional Transportation Plan (RTP) in order to maintain continued compliance with the federal Clean Air Act. The U.S. Department of Transportation (DOT) and the U.S. Environmental Protection Agency (EPA) approved and acknowledged the 2035 RTP air quality conformity determination on Sept 20, 2010. Under federal regulations, the RTP must be updated every four years to ensure that the plan adequately addresses future travel needs and is consistent with the federal Clean Air Act.

As a result, a new plan demonstrating conformity with the Clean Air Act must be approved and acknowledged by US DOT and US EPA in a formal conformity determination by September 20, 2014, when the current US DOT/US EPA conformity determination for the 2035 RTP expires. Staff is proposing to submit the updated plan to USDOT/EPA by July 24, 2014 to allow time for their review prior to conformity expiring (See Attachment 1.) If the conformity determination expires, the plan is considered to "lapse," ***meaning that federally-funded transportation improvements could not be obligated during the lapse period.*** This consequence would apply to engineering, right-of-way acquisition or construction of any federally funded or permitted transportation project, except those defined as exempt because they do not have the possibility of increasing vehicle emissions.

Scale of 2014 RTP update

An important related project currently underway is the state mandated Climate Smart Communities (CSC) project which is required to be completed by December 2014 and is expected to have major recommendations for the Regional Transportation Plan. Because of the short timeline, limited available resources and overlap with the CSC project, the 2014 RTP work program must be scaled to focus on critical policy and project updates needed in the near term, while deferring less urgent or developed issues to the subsequent RTP update (which will also incorporate CSC recommendations).

A major focus of the 2014 update will be on meeting state and federal requirements, and incorporating a few regional initiatives including the Regional Active Transportation Plan, Regional Safety Plan and establishing a definition and policy for auxiliary lanes. (See Attachments 2 and 3) The next RTP update (which will be required by 2018) is proposed to be a more expansive effort that involves broader public discussion of plan policies and projects. By limiting this update to previously adopted local plans and corridor studies, projects that are included will have been subject to past public involvement. This approach continues the past cycle of every other update reopening a discussion of the RTP on a more fundamental level.

Background on the RTP
The 2035 RTP was developed to include separate layers of planned projects and programs that respond to differing federal and state planning mandates. These layers are:

- the **2035 RTP federal priorities** (AKA "financially constrained system"), which responds to federal planning requirements, and is based on a financial forecast of limited funding ("reasonably likely") over the 20-year plan period. To be eligible for federal funding, projects must be included in the financially constrained system.

- the **2035 RTP Investment Strategy** (AKA "state system") which responds to state planning requirements to develop a system that adequately serves the region's land use vision, the 2040 Growth concept, and assumes significant new revenue over the 20-year plan period.

Next Steps
As shown in Attachment 1 the work program will be discussed by Metro Council, JPACT and TPAC over the next month prior to asking for an endorsement from JPACT and Metro Council in July. As shown in Attachments 3 and 4. This summer staff will develop materials to inform major tasks, e.g. existing conditions, policy updates and a project solicitation packet. The Fall will include assembly of major work products, e.g. updating project lists within each sub-region. The Winter will include modeling and evaluation of system performance and the Spring will include public comment on the draft plan and adoption proceedings.

Attachment 1. 2014 RTP Update Calendar for Kickoff & Adoption meetings – *last updated 5/28/13*

Kickoff meetings

5/31/13	**TPAC** –Informational – share preliminary outline of 2014 RTP update work program
6/13/13	**JPACT** – Information/Discussion of 2014 RTP update work program
6/25/13	**Metro Council Work Session** – Information/Discussion of 2014 RTP update work program
6/28/13	**TPAC** – Informational – share updated 2014 RTP update work program reflecting Metro Council and JPACT input
7/11/13	**JPACT** - Endorse 2014 RTP update work program
7/18/13	**Metro Council** - Endorse 2014 RTP update work program

Adoption meetings

3/11/14	**Metro Council** – Briefing prior to release of draft document for public comment
3/12/14	**MPAC** – Briefing prior to release of draft document for public comment
3/13/14	**JPACT** – Briefing prior to release of draft document for public comment
3/21 – 5/5/14	Release draft plan for public comments (45-days)
5/6/14	**Metro Council** – Preview of potential refinements from public comment period
5/7/14	**MPAC** (tentative)
5/8/14	**JPACT**
5/8/14	**AQ Conformity** modeling begins
5/28/14	**MTAC** briefing
5/30/14	**TPAC** briefing
6/2 – 7/2/14	Public comment on AQ conformity (30-days)
6/4/14	**MTAC** - Recommendation
6/19/14	**Metro Council** - First reading
6/25/14	**MPAC** - Recommendation
6/27/14	**TPAC** - Recommendation
7/10/14	**JPACT** - Action
7/17/14	**Metro Council** - 2nd reading and Final Action
7/24/14	**Transmit adopted RTP to US DOT & DLCD for review**
Sept 20, 2014	2035 RTP conformity expires

Attachment 2. 2014 Regional Transportation Plan update - Policy parking lot – *last updated 5/23/13*

2014 RTP update (2040 planning horizon)	**2018 Update (2045 Planning horizon)**

Federal Requirements
• MAP-21 & other Federal Requirements
  o EJ and Title VI updated planning analysis requirements
• National Highway System (NHS)
• MAP-21 performance management targets
 	
State Requirements
• Projects & Functional class changes
  o Corridor Plans (Southwest Corridor, East Metro Connections Plan, TV Highway)
  o Local TSPs (Beaverton, Tigard, Tualatin, Wood Village, Oregon City, Wilsonville, Gresham, Milwaukie, Clackamas County)
• Freight functional class update
 	
Regional Initiatives
• Active Transportation Plan recommendations (existing conditions and policies)
• Regional Safety Plan recommendations
• Auxiliary lane definition and policy discussion
	Federal Requirements
	• New reauthorization requirements
	
	State Requirements
	• Climate Smart Communities recommendations
	• Mobility policy update to respond to Oregon Highway Plan amendments
	
	Regional Initiatives
	• Regional Transportation Functional Plan (RTFP) update
	• EJ policy update to incorporate Metro equity Strategy
	• Parking policy update
	• Regional Travel Options Strategic Plan recommendations
	• Regional Freight plan recommendations
	• Regional TSMO plan recommendations
	• High Capacity Transit System Expansion policy

Attachment 3. Draft Outline for 2014 RTP update – *last updated 5/23/13*

March-June 2013

- Scope the work – research what's required from federal and state regulations and how to right-size the project given limited time and available staff resources
- Develop draft revenue forecast (trend revenue at existing levels as adopted in 2035 RTP)
- Present work plan to Metro Council, TPAC and JPACT in late May – early June and request JPACT & Metro Council endorsement in early July

July-September 2013

- Develop materials to inform major tasks to be completed in Fall
    - Develop RTP project solicitation packet (Use one summer TPAC meeting for review)
    - RTP financial assumptions (1-2 meetings with local staff to review Metro staff forecast)
    - RTP policy updates
        - Regional Safety Plan
        - Regional Active Transportation Plan
        - Corridor plans
        - Update RTP performance targets to reflect upcoming MAP-21 performance target regulations, (e.g. infrastructure condition, reduce project delivery delays)
    - Existing Conditions
        - Mobility Corridor Atlas update
        - Utilize Climate Smart existing conditions work
        - Begin pilot base year assessment of one mobility corridor

October – December 2013

- Local project solicitation through coordinating committees
- Public involvement, coordinate with Metro Equity work group
- Review updated policy
    - Required: Corridor plans, MAP-21 & Federal requirements
    - Regional initiatives: Regional Safety Plan, Regional Active Transportation Plan, Regional policy on auxiliary lanes
        - Brief staff presentations on topic areas

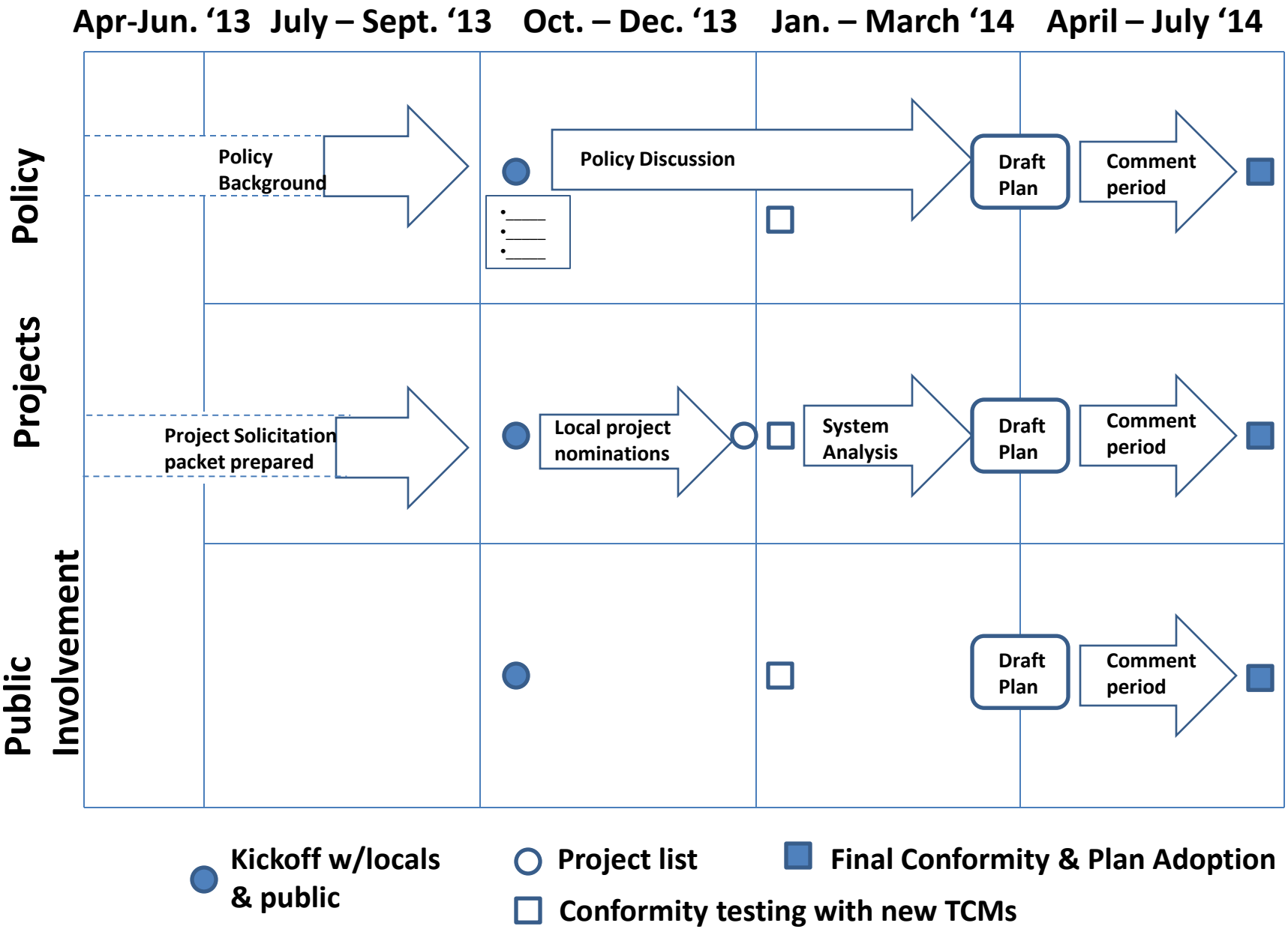
January – March 2014

- Complete future year assessment of projects within one mobility corridor & share results
- Conduct Environmental Justice Benefits and Burdens analysis; Conduct Title VI Disparate Impact analysis
- Model performance of FC and State systems / test AQ modeling with new TCMs
- Release Draft RTP for public comments

April – July 2014

- AQ conformity modeling
- Final adoption and submittal to USDOT in July 2014

Attachment 4. 2014 RTP Update Timeline – *last updated 5/23/13*



Materials following this page were distributed at the meeting.

Attachment C – Technical Analysis of Proposed Transit Service Increase TCM Substitution for the Portland Metropolitan Region

Background

Clean Air Act section 176(c)(8) allows regions to employ a "substitution," when air quality and transportation planning agencies find it appropriate to modify or replace the original transportation control measures (TCMs) in an air quality plan.[1] The Oregon Department of Environmental Quality (DEQ), in conjunction with Metro, developed a substitution policy and process that was codified with the adoption of the Portland Area Carbon Monoxide Maintenance Plan.[2] A TCM substitution allows an existing TCM to be replaced with another TCM of equal or greater emissions reduction. To undergo a TCM substitution, the process entails consultation with regional stakeholders, conducting technical analysis demonstrating equivalent or greater emissions reduction, public comment, and concurrence from Metro, Oregon State Department of Environmental Quality (DEQ), and the U.S. Environmental Protection Agency (EPA).[3]

The Portland Metropolitan region proposed undergoing a TCM substitution due to a potential shortfall in meeting the Transit Service Increase TCM. The following outlines the process undertaken to demonstrate the proposed substitute TCM will provide an equal or greater carbon monoxide emissions reduction benefit.

Portland Metropolitan Region's Transportation Control Measures

As an EPA designated maintenance area for carbon monoxide, the Portland Metropolitan region is required to develop and implement strategies to reduce the amount of criteria pollutants released from transportation sources.[4] The region identified and committed to three transportation control measures (TCMs) to help mitigate impacts of criteria pollutants from transportation sources.[5] Metro and regional partners are responsible for implementing all of its TCMs to meet federal and state requirements. The three TCMs are found in Table 1.

Table 1. Transportation Control Measures and Performance Standards

Transportation Control Measure (TCM)	Performance Standard	Emissions Reduction Benefit
Increase transit service	Regional transit service revenue hours (weighted by capacity) shall be increased 1.0% per year. The increase shall be assessed on the basis of a 5-year rolling average of actual hours for assessments conducted between 2006 and 2017.	246.3 lb/day
Program and construct bikeways and trails	Jurisdictions and government agencies shall program a minimum total of 28 miles of bikeways or trails within the Portland metropolitan area between the years 2006 through 2017. A cumulative average of 5 miles of	170.1 lb/day

[1] U.S. Environmental Protection Agency, "Guidance for Implementing the Clean Air Act Section 176(c)(8) Transportation Control Measure Substitution and Addition Provision." Page 1.
[2] Oregon Department of Environmental Quality, "Portland Area Carbon Monoxide Maintenance Plan ." State Implementation Plan. Volume 2 Section 4.58 Appendix D9-2.
[3] Ibid.
[4] Oregon Department of Environmental Quality, "Portland Area Carbon Monoxide Maintenance Plan ." State Implementation Plan. Volume 2 Section 4.58 Page 21.
[5] Ibid.

	bikeways or trails per biennium must be funded from all sources from each MTIP.	
Program and construct pedestrian paths	Jurisdictions and government agencies shall program at least nine miles of pedestrian paths in mixed-use centers between the years 2006 through 2017, including the funding of a cumulative average of 1 and 1/2 miles in each biennium from all sources in each MTIP.	.9 lb/day

Proposed TCM Substitutions

In anticipation the region may not meet the performance standard for the Transit Service Increase TCM, TPAC recommended Metro, DEQ and TriMet to undergo EPA's TCM substitution process. Through a collaborative process and in consultation with EPA, the following TCM substitution is proposed:

Existing Transit Service Increase TCM Language	Proposed Substitute Transit Service Increase TCM Language
"Regional transit service revenue hours (weighted by capacity) shall be increased 1.0% per year. The increase shall be assessed on the basis of a 5 year rolling average of actual hours for assessment conducted between 2006-2017. Assessments made for the period through 2008 shall include the 2004 opening of Interstate MAX."	"Regional transit service revenue hours (weighted by capacity) shall be increased 1.0% per year. The increase shall be assessed on the basis of cumulative average of actual hours for assessment conducted for the entire second ten-year Portland Area Carbon Monoxide Maintenance Plan (2007 – 2017). Transit service increase will be assessed on the basis of fiscal year (July 1- June 30) beginning with FY 2008."

The proposed substitute TCM uses a cumulative average to-date to determine whether a 1.0 percent annual transit service increase has been achieved. This is similar as the existing TCM, which requires a 1.0 percent annual transit service increase, but the existing TCM is based on a rolling five year average of past transit service. Using the new methodology of a cumulative average accounts for all years-to-date when calculating the whether 1.0 percent service increase has been achieved. The cumulative average method for the Transit Service Increase TCM provides a longitudinal look at whether the TCM is being met throughout the life of the maintenance plan rather than a five-year snapshot.

Methodology, Emissions Model Update, and Latest Planning Assumptions Update for Calculating the Carbon Monoxide Emissions Reductions Benefit

To employ a TCM substitution, EPA and DEQ requires the new TCM meet or exceed the emission reduction benefit of the replaced TCM. However, the process requires the demonstration of equivalent carbon monoxide emissions reductions to use updated planning assumptions.[6]

Methodology

Each TCM in the regional air quality plan was assigned a performance standard as a means of measuring and monitoring the region's commitment to reducing carbon monoxide emissions. The State Implementation Plan (SIP) which serves as the statewide air quality plan established the

[6] U.S. Environmental Protection Agency, "Guidance for Implementing the Clean Air Act Section 176(c)(8) Transportation Control Measure Substitution and Addition Provision." Page 6.

methodology to calculate the emission reduction benefits of TCMs.[7] Since of premise of the proposed TCM substitution is a modification to how the TCM annual transit service increase is calculated, the emissions reduction benefit methodology was not modified. The same emissions reduction methodology outlined in the SIP was used to calculate the carbon monoxide emissions reduction benefit for the updated existing TCM and proposed TCM substitution.

For the Transit Service Increase TCM, the methodology entails:

1) Estimating the number of vehicle trips which are diverted to transit by meeting the performance standard of the TCM; and
2) Identifying the average length of transit trip.[8]

Using the estimated number of diverted vehicle trips, the average transit trip length, and a carbon monoxide emissions reduction rate, the carbon monoxide emissions reduction benefit is calculated as follows:

1) X number of diverted vehicle trips from meeting transit performance standard (per day) x average length of transit trip (in miles) = X number miles diverted per day
2) X number miles diverted x CO rate (in grams per mile) = total CO grams per day
3) X total CO grams per day/453.592 grams per pound = X total CO pounds per day[9]

Assumptions

Per EPA and DEQ rules, the latest planning assumptions must be used to when conducting a TCM substitution analysis.[10] In the methodology of calculating the carbon monoxide emissions reduction benefit for the existing and the proposed substitute TCM, there are two areas where the latest planning assumptions can be reflected: the number of diverted vehicle trips and the average transit trip length.

In 2011, Metro conducted an update to the Oregon Household Activity Survey (OHAS). The OHAS provides information regarding the region's travel behavior and habits. The 2011 OHAS indicate the average transit trip length increased from 5.9 miles to 6 miles.[11] The updated average trip length was incorporated in the analysis of the carbon emissions reduction benefit for the proposed substitute TCM and the existing TCM.

The existing Transit Service Increase TCM used 2003 reported revenue hours to determine the diverted vehicle trips diverted by meeting the Transit Service Increase TCM performance standard of 1.0% annual service increase. TriMet provided 2012 revenue hours which were used to update and determine the number of vehicle trips.[12] Table 2 identifies the assumptions in the diverted vehicle trips and average length used in the analysis.

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[7] Oregon Department of Environmental Quality, "Portland Area Carbon Monoxide Maintenance Plan ." State Implementation Plan. Volume 2 Section 4.58 Appendix D9-3.
[8] Ibid.
[9] Ibid.
[10] U.S. Environmental Protection Agency, "Guidance for Implementing the Clean Air Act Section 176(c)(8) Transportation Control Measure Substitution and Addition Provision." Page 6.
[11] Metro. Oregon Household Activity Survey, 2011.
Metro. Oregon Household Activity and Travel Survey, 1994.
[12] TriMet. Annual Budget and Financial Forecast, 2012.

Table 2. Transit Service Increase TCM Assumptions

Assumption	Existing Transit Service Increase TCM	Existing Transit Service Increase TCM (updated with latest planning assumptions) and Proposed Substitute Transit Service Increase TCM
Diverted Trips	TriMet reported 2003 total revenue hours was 1,677,156 resulted 88,863,600 boardings/trips. Assuming ratio of revenue hours to ridership is constant, one percent change in 2003 reported revenue hours results in an annual ridership of 89,751,153. Subtracting the difference results in an estimate of a one year increase of yearly ridership 888,553, which on a daily basis would be an increase of 2,843 riders. Assuming each rider equates to one diverted vehicle trip, the daily diverted trip for meeting the performance standard is 2,843.	TriMet reported 2012 total revenue hours was 1,600,132 resulted 101,210,444 boardings/trips. Assuming ratio of revenue hours to ridership is constant, one percent change in 2012 reported revenue hours results in an annual ridership of 102,2018,644. Subtracting the difference results in an estimate of a one year increase of yearly ridership 1,008,200, which on a daily basis would be an increase of 3,221 riders. Assuming each rider equates to one diverted vehicle trip, the daily diverted trip for meeting the performance standard is 3,221.
Average Trip Length	5.9 miles – 1994 Oregon Household Activity Survey	6.0 miles – 2011 Oregon Household Activity Survey

Model Assumptions

To ensure consistency between the carbon monoxide emissions reduction benefit established with MOBILE6.2, the MOVES2010 conversion incorporated the same base year assumptions used in MOBILE6.2. MOVES2010b was run in the emission rates mode at the county scale for the 24-hour January weekday in 2005 and was configured to produce CO rates for passenger cars and passenger trucks on urban roads. The County Data Manager was populated with inputs from Metro's most recent conformity-related MOBILE6.2 run, converted to the formats required by MOVES in accordance with EPA technical guidance. MOVES was run for three custom counties representing the various inspection and maintenance regimes that are represented by vehicles traveling in the Portland metro area: Oregon-inspected, Washington-inspected, and non-inspected. The rates produced by MOVES were stratified by hour, roadway type (restricted versus non-restricted access), average speed bin, and I/M area. Using VMT produced by the most recent conformity-related run of Metro's regional transportation model for 2005, weighted averages were applied to each of the above strata to arrive at a single CO rate (9.546 grams/mile).

Translating Performance Metrics into Emission Reduction Benefits

Prior to performing the analysis to compare the carbon monoxide emissions reduction benefit of the existing TCM and the proposed substitute TCM, Metro staff needed to update the emissions reduction benefits of the existing TCM to reflect the latest approved EPA emissions model.[13] In

[13] U.S. Environmental Protection Agency, "Guidance for Implementing the Clean Air Act Section 176(c)(8) Transportation Control Measure Substitution and Addition Provision." Page 6.

March 2010, EPA implemented new rules requiring the use of the MOVES2010 emissions model for all regional air quality conformity and state implementation plan analyses.[14] The carbon monoxide emissions reduction benefits were derived from the previous carbon monoxide rate which came from the MOBILE 6.2 emissions model. Using the same methodology established in the SIP to calculate the emissions reduction benefit for the Transit Service Increase TCM, staff employed the MOVES2010 carbon monoxide rate to convert the carbon monoxide emissions reduction benefit for the existing Transit Service Increase TCM. Additionally, the emissions reduction benefit also employed the latest planning assumptions. Tables 3 - 5 illustrate the results of the conversion.

Table 3. Original Carbon Monoxide Emission Reduction Benefit Calculation – MOBILE6.2

Transportation Control Measure (TCM)	MOBILE6.2 Carbon Monoxide (CO) Emission Rate	Calculation of TCM Emissions Reduction Benefit	MOBILE6.2 Emissions Reduction Benefit
Increase transit service	6.66 CO grams per mile	Diverted Trips Per Day: 2,843 Average Transit Trip Length: 5.9 miles 2,843 trips x 5.9 miles = 16.773.7 miles 16,773.7 miles x 6.66 grams per mile = 11,712.842 total grams 11,712.842 total grams/453.592 grams per pound = 246.3 lb/day	246.3 lb/day

Table 4. Carbon Monoxide Emission Reduction Benefit Calculation – MOVES2010 Conversion without Updated Planning Assumptions

Transportation Control Measure (TCM)	MOVES2010 Carbon Monoxide (CO) Emission Rate	Calculation of TCM Emissions Reduction Benefit (unadjusted)	MOVES2010 Emissions Reduction Benefit
Increase transit service	9.546 CO grams per mile	Diverted Trips Per Day: 2,843 Average Transit Trip Length: 5.9 miles 2,843 trips x 5.9 miles = 16,773.7 miles 16,773.7 miles x 9.546 grams per mile = 160,121.740 total grams 160,121.740 total grams/453.592 grams per pound = 353.0 lb/day	353.0 lb/day

[14] U.S. Environmental Protection Agency, Policy Guidance on the Use of MOVES2010 and Subsequent Minor Revisions for State Implementation Plan Development, Transportation Conformity, and Other Purposes."

Table 5. Carbon Monoxide Emission Reduction Benefit Calculation – MOVES2010 Conversion with Updated Planning Assumptions

Transportation Control Measure (TCM)	MOVES2010 Carbon Monoxide (CO) Emission Rate	Calculation of TCM Emissions Reduction Benefit (adjusted for updated planning assumptions)	MOVES2010 Emissions Reduction Benefit
Increase transit service	9.546 CO grams per mile	Diverted Trips Per Day: 3,221 Average Transit Trip Length: 6 miles 3,221 trips x 6 miles = 19,326 miles 19,326 miles x 9.546 grams per mile = 184,486 total grams 184,486 total grams/453.592 grams per pound = 406.7 lb/day	406.7 lb/day

TCM Substitution Demonstration of Equivalent Carbon Monoxide Emissions Reduction Benefit

Demonstration of Carbon Monoxide Emissions Reduction Benefits for Proposed TCM Substitution
Table 5 illustrates the results of the carbon monoxide emission reduction benefit analysis and compares the emissions reduction benefit for the existing TCM (with updated planning assumptions) and proposed substitute TCM.

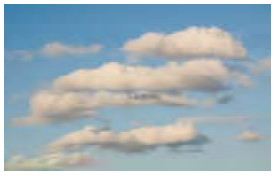
Table 6. TCM Substitution Demonstration of Equivalent Carbon Monoxide Emissions Reduction Benefit

Transportation Control Measure (TCM)	Performance Standard	Calculation of TCM Emissions Reduction Benefit	TCM Emissions Reduction Benefit
Increase transit service (Existing TCM adjusted for MOVES and latest planning assumptions)	Regional transit service revenue hours (weighted by capacity) shall be increased 1.0% per year. The increase shall be assessed on the basis of a 5-year rolling average of actual hours for assessments conducted between 2006 and 2017.	Additional Trips Generated Per Day: 3,221 Average Transit Trip Length: 6 miles 3,221 trips x 6 miles = 19,326 miles 19,326 miles x 9.546 grams per mile = 184,486 total grams 184,486 total grams/453.592 grams per pound = 406.7 pounds per day	406.7 lb/day

Increase transit service (Proposed TCM Substitution)	Regional transit service revenue hours (weighted by capacity) shall be increased 1.0% per year. The increase shall be assessed on the basis of cumulative average of actual hours for assessment conducted for the entire Second Portland Area Carbon Monoxide Maintenance Plan (2007 – 2017). Transit service increase will be assessed on the basis of fiscal year (July 1- June 30) beginning with FY 2008.	Additional Trips Generated Per Day: 3,221 Average Transit Trip Length: 6 miles 3,221 trips x 6 miles = 19,326 miles 19,326 miles x 9.546 grams per mile = 184,486 total grams 184,486 total grams/453.592 grams per pound = 406.7 pounds per day	406.7 lb/day

Based on the results of the carbon monoxide emissions reduction benefit analysis, the proposed TCM substitution will provide equal carbon monoxide reduction benefit as the existing TCM.

Since the proposed TCM substitution is a minor adjustment to the method of calculating the annual transit service increase (from a rolling average to a cumulative average) to determine if the performance standard has been achieved no change is observed between the existing TCM and the proposed substitute TCM in carbon monoxide emissions reduction benefits. This is because in the original methodology assumed a constant ratio that if 1.0 percent annual transit service increase occurred, the result is a set amount of vehicle trips diverted. Since the proposed TCM substitution does not change the performance standard of 1.0 percent annual transit service increase, but only the method of calculating the service increase, then the vehicle trips diverted do not change. This does not end up changing the inputs in calculating the emissions reduction benefits. However, the cumulative average method more accurately reflects the lasting positive benefits and long-term investments the region has made towards transit. Subsequently this has led to a reduction of carbon monoxide emissions and overall improved air quality. The cumulative average method provides a more accurate reflection of the region's commitment to transit over the entire carbon monoxide maintenance plan.



Transportation Control Measure Substitution

Analysis and Results

Grace Cho, Metro

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What is a Transportation Control Measure (TCM)?

A strategy that reduces emissions of air pollutants from transportation sources.

Why are we talking about TCMs?

TCMs are the region's commitment to better air quality.

First adopted TCMs in late 1990s.

Revised TCMs in 2007.

Existing TCMs

- Increase transit service 1.0% per year from 2006-2017.

- Program and construction 28 miles of bikeways and trails between 2006-2017.

- Program and construction nine miles of pedestrian paths in mixed-use centers between 2006-2017.

What is required for a TCM substitution?

Per EPA and DEQ policy, must demonstrate the TCM substitution:

- Provides equal or greater emissions reductions;
- Can be implemented on a schedule consistent with the existing TCM being removed;
- Presents evidence the TCM can be implemented;
- Must be a collaborative process with the opportunity for public comment; and
- Concurred by DEQ, Metro, and EPA.

Proposed Substitute TCM

"Regional transit service revenue hours (weighted by capacity) shall be increased 1.0% per year. The increase shall be assessed on the basis of cumulative average of actual hours for assessment conducted for the entire second ten-year Portland Area Carbon Monoxide Maintenance Plan (2007 – 2017). Transit service increase will be assessed on the basis of fiscal year (July 1- June 30) beginning with FY 2008."

Demonstration of Equivalent CO Emissions Reduction Benefit

Transportation Control Measure	TCM Emissions Reduction Benefit
Existing TCM (adjusted for MOVES and latest planning assumptions): 5-year rolling average method	406.7 lb/day
Proposed TCM Substitution: 10 Year cumulative average method	406.7 lb/day

Emissions Benefits: TCM substitute = existing TCM

But the TCM Doesn't Tell the Full Air Quality Story

Transportation Control Measure	Service Hours and Trips	TCM Emissions Reduction Benefit
Existing TCM (unadjusted): 5-year rolling average method	1,677,156 Service Hrs. 88,863,600 Trips (2003)	353.0 lb/day
Proposed TCM Substitution: 10 Year cumulative average method	1,600,132 Service Hrs. 101,210,444 Trips (2012)	406.7 lb/day

Increased benefit: 53.7 lb/day

Evidence of Ability to Implement

Projected Cumulative Transit Increase
The uppermost figures in columns C - L show the cumulative average annual service increase.

Percent Change year-to-year	Fiscal Year										
22.0%	1999										
5.3%	2000										
1.6%	2001										
4.8%	2002										
2.3%	2003										
0.9%	2004										
5.4%	2005										
-1.6%	2006										
1.4%	2007										
3.3%	2008	3.34%									
3.4%	2009	3.35%	3.35%								
3.3%	2010	3.32%	3.32%	3.32%							
-5.0%	2011	1.24%	1.24%	1.24%	1.24%						
1.0%	2012	1.20%	1.20%	1.20%	1.20%	1.20%					
1.0%	2013 PROJ	1.16%	1.16%	1.16%	1.16%	1.16%	1.16%				
1.0%	2014 PROJ	1.13%	1.13%	1.13%	1.13%	1.13%	1.13%	1.13%			
1.4%	2015 PROJ	1.17%	1.17%	1.17%	1.17%	1.17%	1.17%	1.17%	1.17%		
4.9%	2016 PROJ	1.58%	1.58%	1.58%	1.58%	1.58%	1.58%	1.58%	1.58%	1.58%	
1.0%	2017 PROJ	1.52%	1.52%	1.52%	1.52%	1.52%	1.52%	1.52%	1.52%	1.52%	1.52%

Portland Area Carbon Monoxide Maintenance Plan Period is from November 1, 2007 - October 2, 2017

What is Required?

Per EPA and DEQ policy, must demonstrate the TCM substitution:

- Provides equal or greater emissions reductions;
- Can be implemented on a schedule consistent with the existing TCM being removed;
- Presents evidence the TCM can be implemented;
- Must have a collaborative process with the opportunity for public comment; and
- Concurred by DEQ, Metro, and EPA.

Next Steps

TCM Substitution Timeline
April – June 2013

- TPAC approval of revised concept for substitute TCMs
- TPAC approves substitute TCM
- Update JPACT of TCM substitution

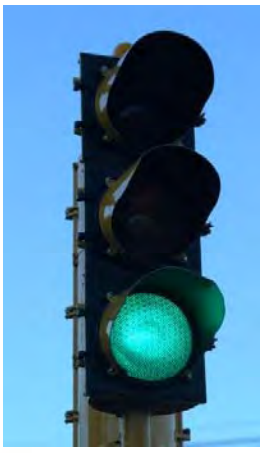
July – Mid September 2013

- Rulemaking Notice to Secretary of State Bulletin.
- Public hearing
- Draft rule adoption staff report
- Submit rule adoption package EQC

Late September – October 2013

- New TCM approved by TPAC and JPACT
- New TCM adopted by Metro Council and EQC
- Concurrence between Metro, DEQ, and EPA
- DEQ submits substitute TCM to EPA

Next Steps



Request approval of proposed TCM substitution analysis.

Request approval for Metro and DEQ to move forward with the TCM substitution process.

Regional Active Transportation Plan (the "ATP)

Presentation to TPAC

May 31, 2013

Lake Strongheart McTighe
Senior Transportation Planner
www.oregonmetro.gov/activetransport

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The ATP

- Follow up activity identified by the 2035 Regional Transportation Plan (RTP)
- Developed with regional Stakeholder Advisory Committee
- Final plan completed end of June
- Adopted into RTP during RTP update, spring 2014
- Amendments to Regional Transportation Functional Plan (RTFP) planned for 2018 RTP update

Process to finalize/endorse

May 23- received input from public at Open House ~ online virtual Open House

June 6 – input on final elements Stakeholder Advisory Committee

May- June - inform Metro advisory committees

June 25 - inform Metro Council on final plan

July - seek recommendation from Metro advisory committees to endorse plan

August – Metro Council votes on endorsement

2014 RTP update – ATP amended to RTP, public comment period, project list development

2018 RTP update – RTFP amended

Elements to be recommended for incorporation into RTP

1. Vision
2. Principles for network development
3. Criteria for evaluating and prioritizing
4. New pedestrian and bicycle networks and network concepts
5. New functional classifications
6. Design guidelines
7. Polices and actions
8. Follow up implementation activities
9. Project list -added by local jurisdictions

Active Transportation Vision

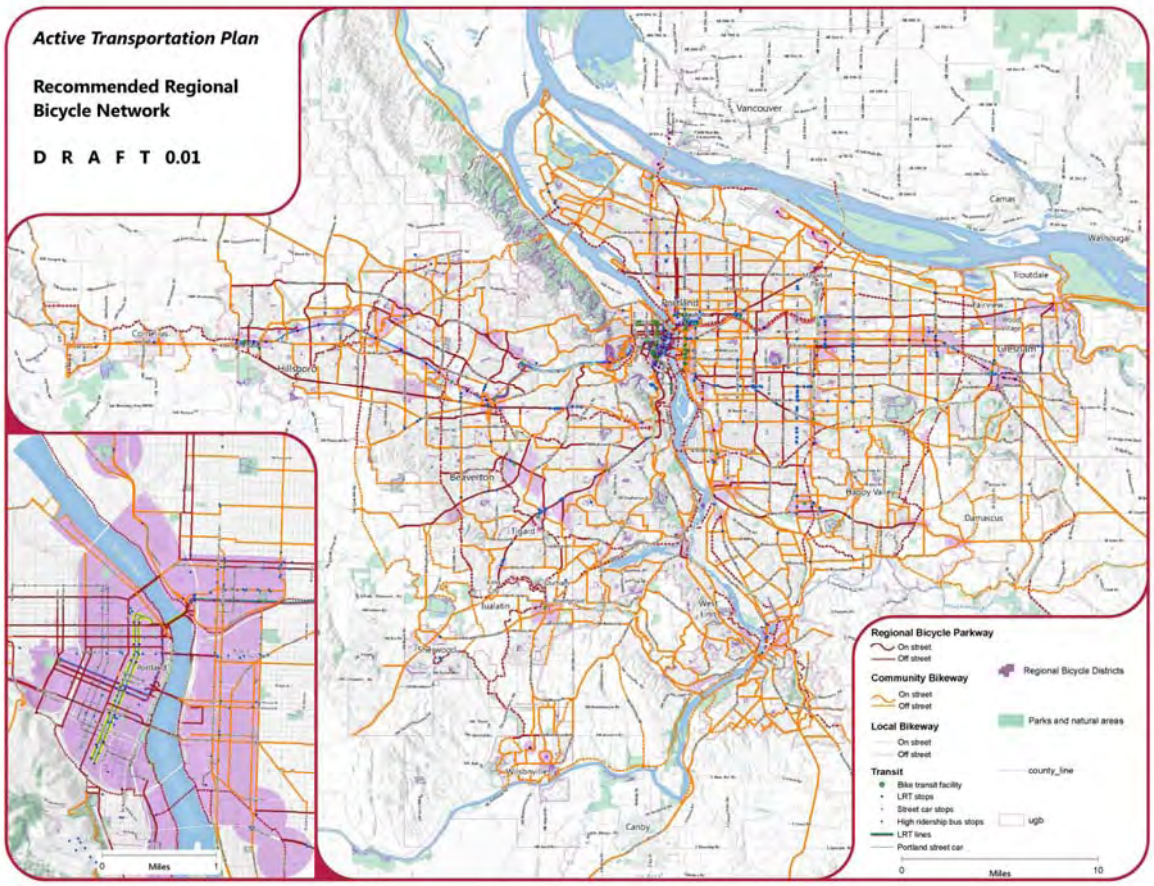
- ✓Convenient and safe access to daily needs
- ✓Vibrant communities
- ✓Connected/safe networks
- ✓Transportation choices
- ✓Works for all ages and abilities
- ✓Majority of the short trips made actively
- ✓Children enjoy independence
- ✓Elders aging in place & get around easily without a car
- ✓Economic prosperity
- ✓Lower household transportation costs
- ✓Less congestion, less freight delay
- ✓Clean air and water, reduced emissions
- ✓Healthy, active lifestyles

Principles for the regional active transportation network

1. Integrated and connected.
2. Direct, complete, intuitive, easy-to-use accessible.
3. Safe and comfortable for people of all ages and abilities
4. Attractive and enjoyable.
5. Integrated with nature, context sensitive.
6. Relieves strain on other transportation systems.
7. Equitable access.
8. Data driven, high return on investment.
9. Implements goals, plans and targets.

Evaluation and prioritization criteria

1. **Access.** How well does the network improve access to destinations?
2. **Safety.** How well does the network make it safer to walk and ride a bike for all users, regardless of age and ability?
3. **Equity.** How well does the network increase access low income, minority, disabled, non-English speaking, youth and elderly populations?
4. **Increased activity.** By how much does the network increase the number of trips made by walking and bicycling?



Regional bicycle network concept and functional classes

Regional Bicycle Parkways

- New functional class, on-street and off
- Form the spine of the network
- High demand routes, link key destinations and centers
- High quality, high priority bicycling routes
- Routes determined using network evaluation – access, equity, safety, increased activity - and SAC expertise

Regional bicycle network concept and functional class

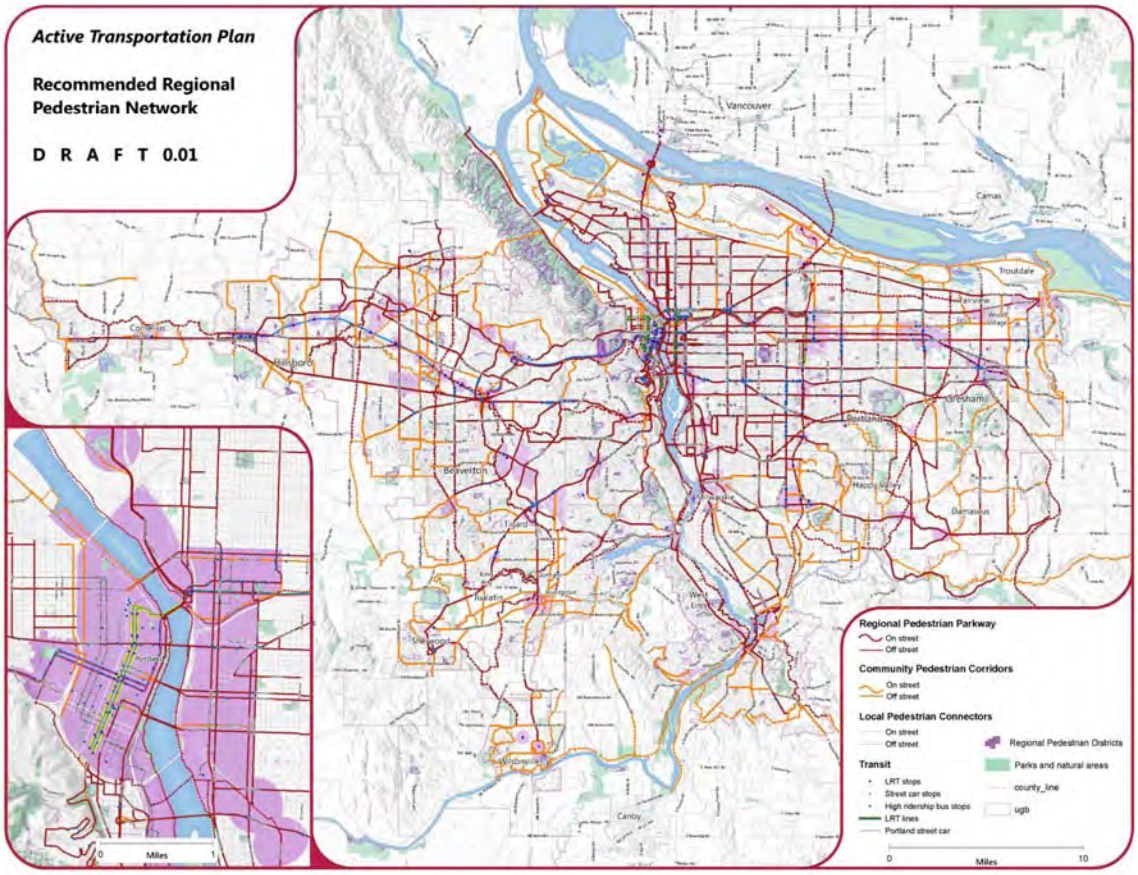
Regional Community Bikeways

- New functional class, on-street and off
- Combine current regional and community functional classes
- Regional trails that are not Parkways
- Connect to Bicycle Parkways and key destinations

Regional bicycle network concept and functional class

Local Bikeways

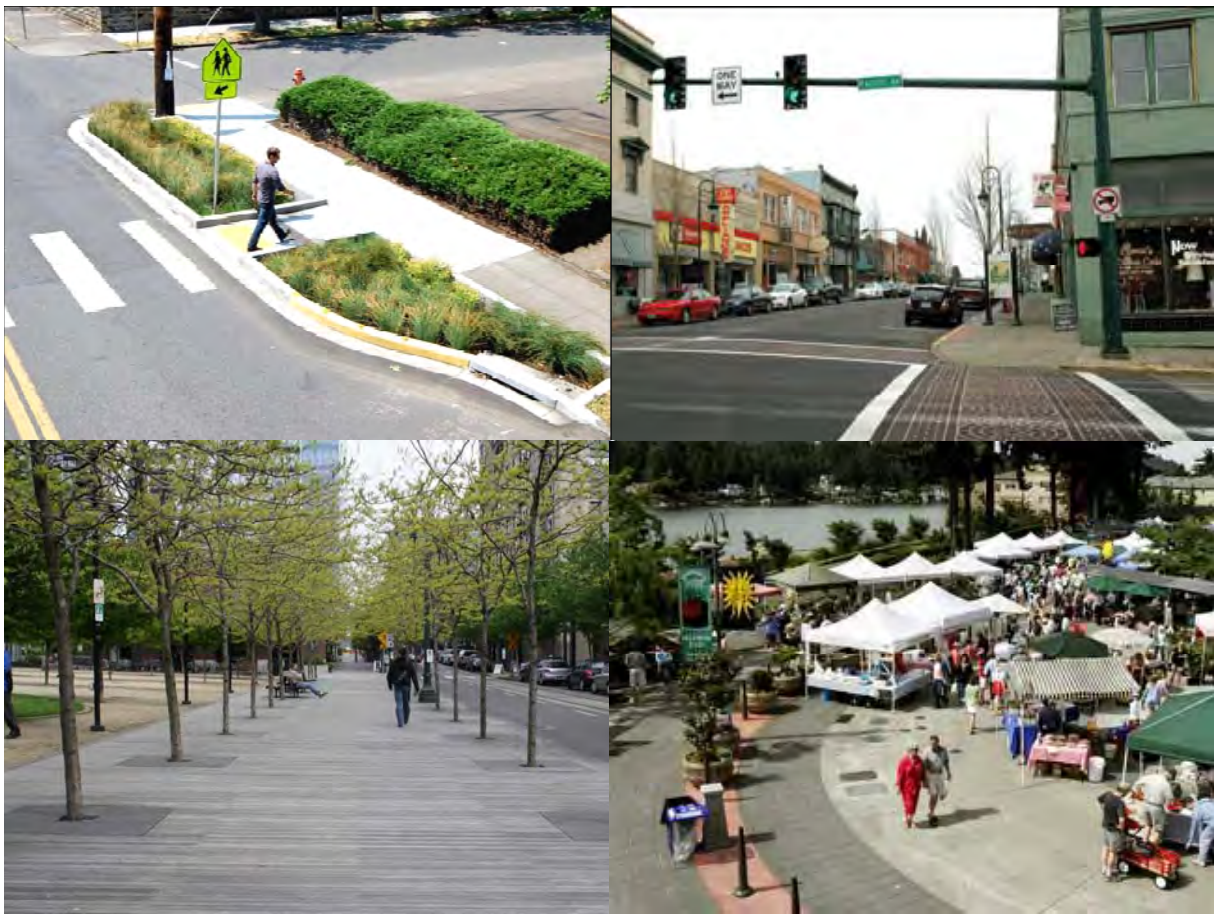
- New functional class
- On-street and off
- Make door to door trips possible
- Low traffic local streets and local trails/paths



Regional pedestrian network concept and functional class

Regional Pedestrian Parkways

- New functional class, on-street and off
- High quality, high priority pedestrian routes
- Provide access to key destinations and transit
- Mirrors frequent transit network
- Routes determined using network evaluation – access, equity, safety, increased activity - and SAC expertise



Regional pedestrian network concept and functional class

Community Pedestrian Corridors

- New functional class, on-street and off
- Urban arterials that are not Parkways
- Regional trails that are not Parkways
- Key connections and match bike routes

Regional pedestrian network concept and functional class

Local Pedestrian Connectors

- New functional class
- On-street and off
- Make door to door trips work
- Low traffic local streets and local trails/paths

Design Guidelines

1. Follow Principles for the Active Transportation Network
2. Emphasize access to destinations, safety, comfort and ease of using pedestrian and bicycle networks for all ages and abilities
3. Emphasize removing barriers to active transportation
4. Emphasize higher level of design on roadways with higher levels of traffic and speed
5. Emphasize higher levels of design for bike and pedestrian interaction

Policies and Actions

1.1 Make walking and bicycling the most convenient and enjoyable transportation choices for short trips.

1.2 Build a well-connected regional network of complete streets and off-street paths that is integrated with transit and prioritize safe, convenient and comfortable pedestrian and bicycle access for all ages and abilities.

Policies and Actions, cont.

1.3 Ensure that the regional active transportation network equitably serves all people.

1.4 Complete pedestrian and bicycle networks to match roadway network level of completeness.

1.5 Utilize data and analysis to guide transportation investments.

Criteria for Grouping Projects into Outcome Categories

- Completes regional parkways/districts and the regional active transportation network
- **Access** - increases access to destinations for the most people
- **Equity** – increases safety and access to destinations in areas with above average underserved populations
- **Safety**- increases walking and bicycling safety
- Increases walking and bicycling activity

Criteria		Measure
Completing the Regional Active Transportation Network	Pedestrian	Project is located on the regional pedestrian network. Priority is given to projects that complete Pedestrian Parkways and Districts.
	Bicycle	Project is located on the regional bicycle network. Priority is given to projects that complete Bicycle Parkways and Districts.
Access to destinations, including transit, via walking and bicycling.	Pedestrian	Project is on a corridor, trail or district where access to essential destinations within a one mile walk is increased for a high number of people.
	Bicycle	Project is in a cycle zone with a high number of bicycle trips.
		Bicycle route has high modeled volumes.
		Project is in a cycle zone with high bicycling potential.
Equity. Access to destinations, including transit, via walking and bicycling for low income, minority, disabled, non-English speaking, youth and elderly populations.	Pedestrian	Project is on a corridor, trail or district with above average share of underserved populations.
	Bicycle	Project is in a cycle zone with above average share of underserved populations
Safety. Increased safety of the pedestrian and bicycle network.	Pedestrian	Project provides separation/protection from traffic or overcomes a barrier to travel
	Bicycle	Project provides separation/protection from traffic or overcomes a barrier to travel
Increased Activity. Increased levels of bicycling and walking.	This criterion is addressed by the access criterion. Increase in bicycling trips was measured using the bicycle modeling tools. The transportation modeling tools indicate an increase in walking in the region; the potential for increased walking activity is assumed with the increase in access to destinations.	

Outcome categories

Category 1 areas – regional parkways, equity, improved access for the highest number of people and safety

Category 2 areas – regional parkways, improved access for the highest number of people and safety

Category 3 areas – regional parkways, equity

Category 4 areas– regional network, improve access and safety

	Criteria
Category 1	Project is on a Pedestrian Parkway or Pedestrian District; AND Project is in a corridor, trail or district with above average % of underserved populations; AND Project is in a corridor, trail or district where improvements increase access for a high number of people; AND Project provides separation from traffic or overcomes a barrier.
Category 2	Project is on a Pedestrian Parkway or Pedestrian District; AND Project is in a corridor, trail or district where improvements increase access for a high number of people; AND Project provides separation from traffic or overcomes a barrier.
Category 3	Project is on a Pedestrian Parkway or Pedestrian District; AND Project is in a corridor, trail or district with above average % of underserved populations; AND Project provides separation from traffic or overcomes a barrier.
Category 4	Project is on the Regional Pedestrian Network ; AND Project is in a corridor, trail or district where improvements increase access; AND Project provides separation from traffic or overcomes a barrier.

Identified implementation activities

A. Incorporate ATP policies and projects into plans (Adopt regionally)
B. Advocate for implementation (Adopt locally)
C. Best practices (replicable, better results on the ground)
D. Maintain funding, seek new funding

Virtual Open House

www.oregonmetro.gov/activetransport

Transit coordination with the Metropolitan Transportation Improvement Program (MTIP)

TPAC

May 31, 2013

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Federal Transportation Funding in the MTIP

- FHWA and FTA are source funding agencies
- ODOT, Metro and Transit agencies administer funds locally
- Eligible agencies may lead projects
- Flexibility in funding use

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The MTIP and Transit

- MTIP Purpose
  - Good financial practice
  - Coordinates project implementation
  - Required to maintain federal funding
- MPOs lead MTIP development
- Transit agencies coordinate with MPO

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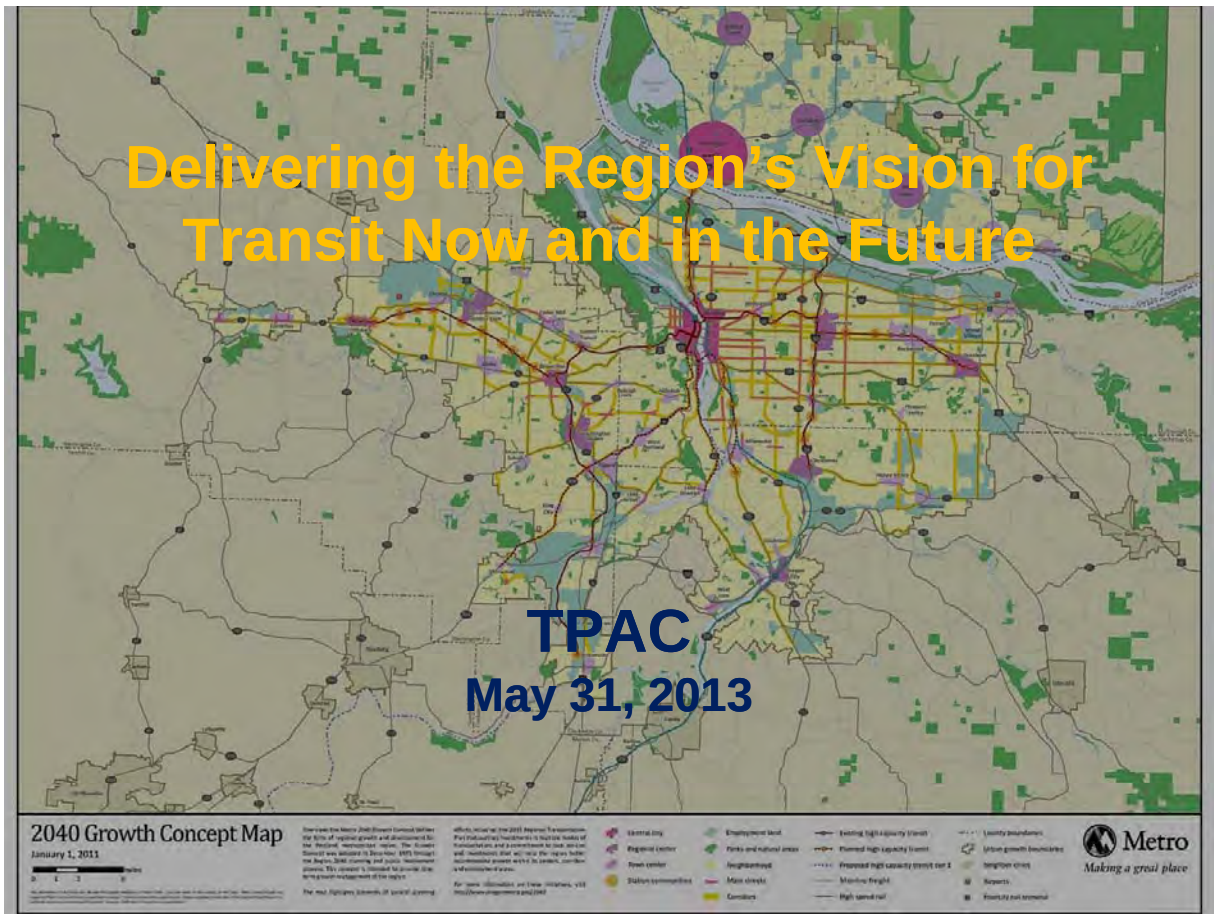

Outline

1. Long-term budget situation
   - Unsustainable health care costs
   - Averting the crisis
2. Transit Investment Priorities (TIP)
   - Service Enhancement Plans
   - Climate Smart Communities
3. FY14 Budget and Service Plan
   - Reliability and Crowding
   - Initial Westside Service Enhancement
4. Federal Funding under MAP-21
   - Changes and Future Outlook

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More and Better Service

- Focus on Customers
- Enhance Fiscal Stability
- Build Partnerships for Transit Growth

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Focus on the Customer

Service
- Frequent
- Reliable

Access
- Pedestrians, Bikes
- Park & Riders

Amenities
- Shelters
- New vehicles

Customer Information

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Reinvestment, Improvement & Expansion

Need reinvestment in Frequent Service and Expansion

Region needs TriMet to triple transit mode share

?

Since 2009, TriMet riders had to endure $43 million worth of cuts and fare increases

Ridership growth stalled; expecting losses if any more cuts

Runaway costs and more service cuts

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Issues

- 3% minimum union COLA for active and retirees ($15M above inflation over last ten years)
- Rich active and retiree medical benefits
- Absenteeism
- Interest arbitration law
- State of good repair

Not issues

- Operating revenues per capita higher than peers
- Payroll tax is sustainable
- Rail investments
- Ridership
- Efficiency

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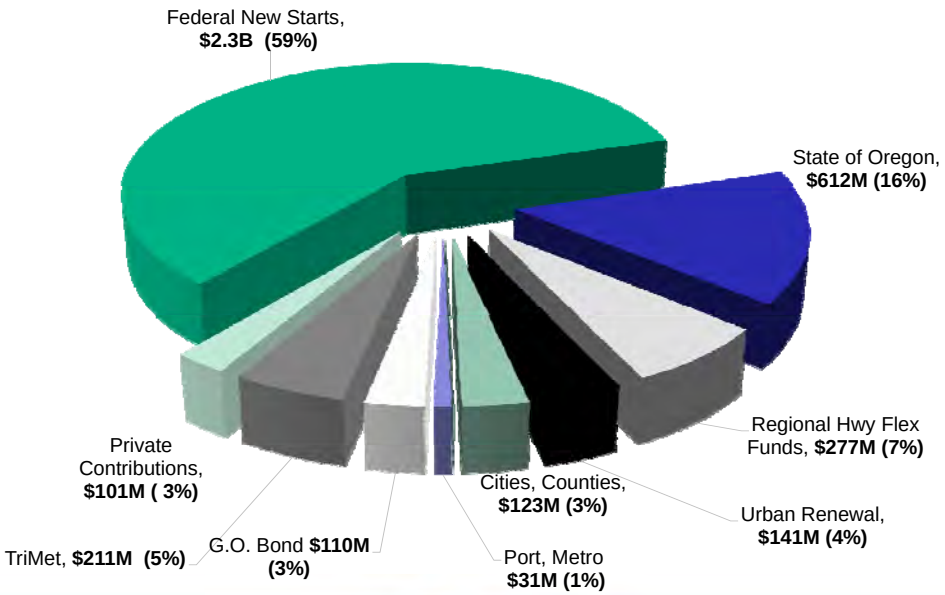
TriMet has paid for just 5% of 30-year regional rail construction program



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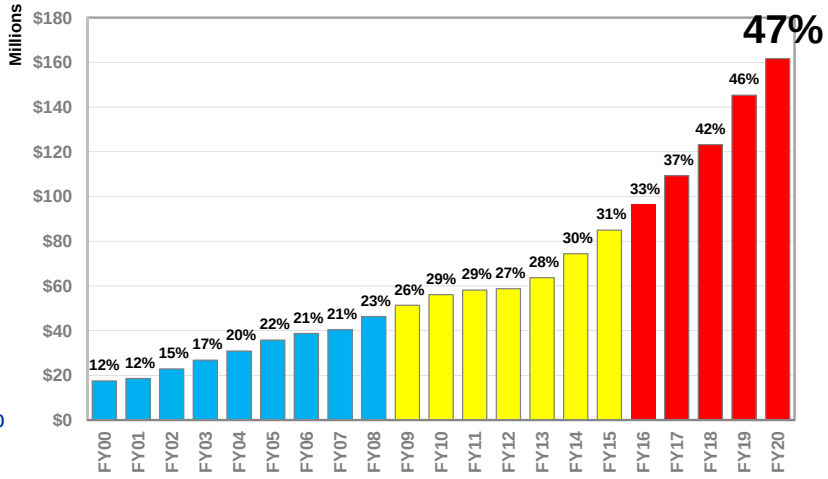
At Issue: Healthcare Costs

- Costs Unsustainable
- Costs have grown from 12% of payroll tax in FY00 to 28% in FY13.
- If trend continues, active and retiree health benefits costs projected to be 42% of underlying payroll tax revenues in five years and nearly 50% in 7 years

Active & Retiree Medical Expenses as a % of Base Payroll Tax Revenues:

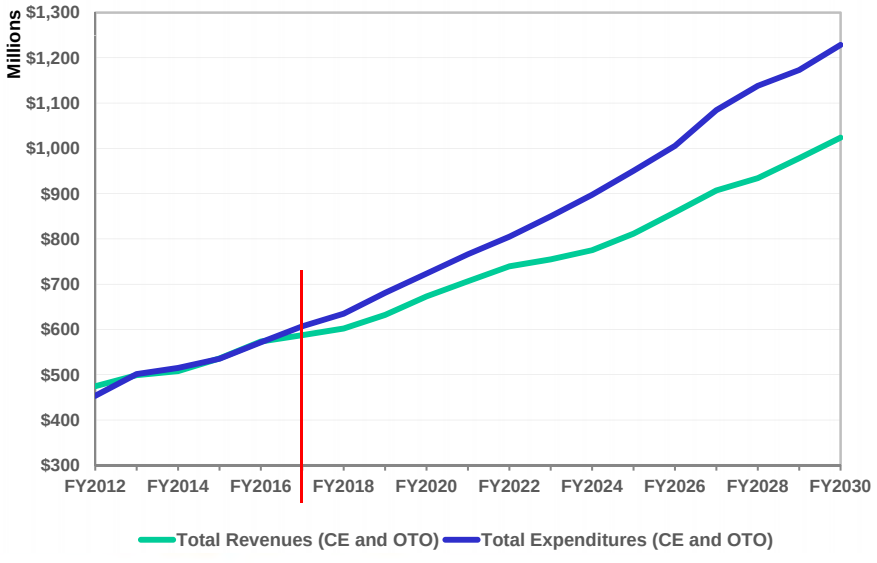


Approaching TriMet's Service Crisis

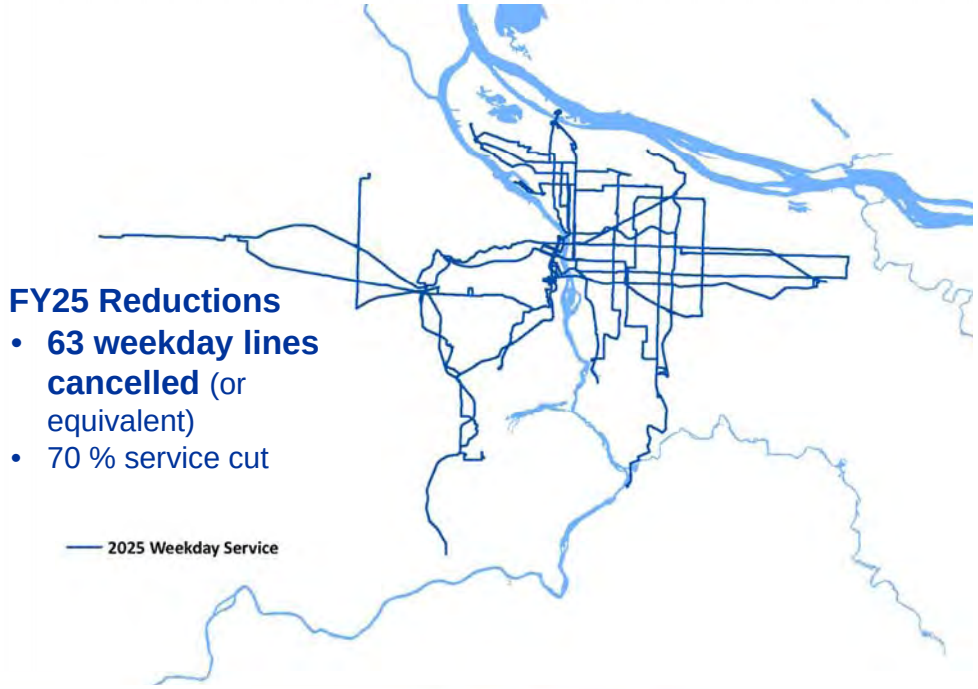
Projected Post Arbitration Revenue Expenditure Imbalance

Revenue-expenditure imbalance:
- ($19) million 2017
- ($48) million 2020
- ($142) million 2025
- ($200) million 2030

Status Quo: Total Revenues and Expenditures



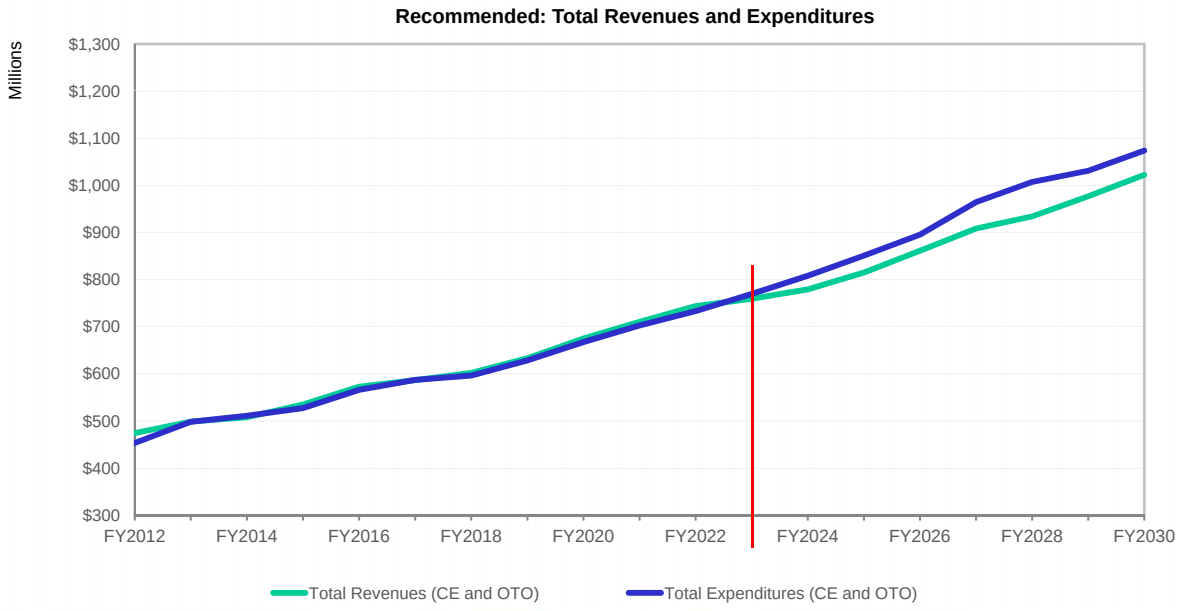
TriMet's Service Crisis



FY25 Reductions

- **63 weekday lines cancelled** (or equivalent)
- 70 % service cut

Current TriMet Offer:
Delays TriMet's Service Crisis



Transit Investment Priorities (TIP)

- Policy Framework
  - Network Design and Management Criteria
  - Title VI Service Standards and Policies
- Service Planning
  - Service Enhancement Plans
  - Annual Service Plans
- Performance Measures
  - By route, stop and jurisdiction
- Partnerships for Transit Growth
- Shaping Budget Priorities

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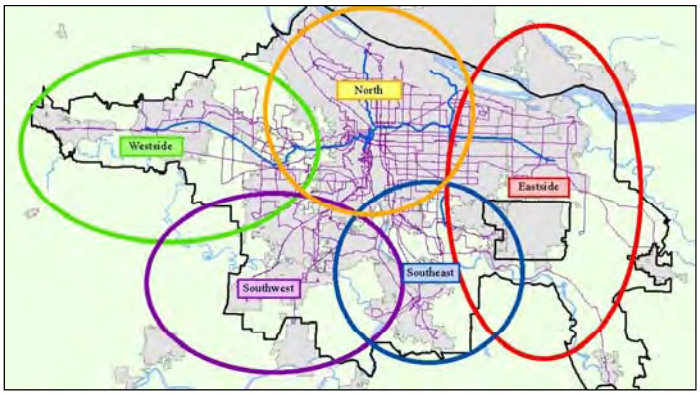
Service Enhancement Plans:

A Different Approach

Listening & Learning

- Sub-area plans
- Listening tour
- Survey
- Demographic analysis
- Visions



Plan Identifies

- Near-term low-cost improvements
- Long-term vision for service
- Public/private partnerships for improved operations
- Access to transit needs and pedestrian improvements

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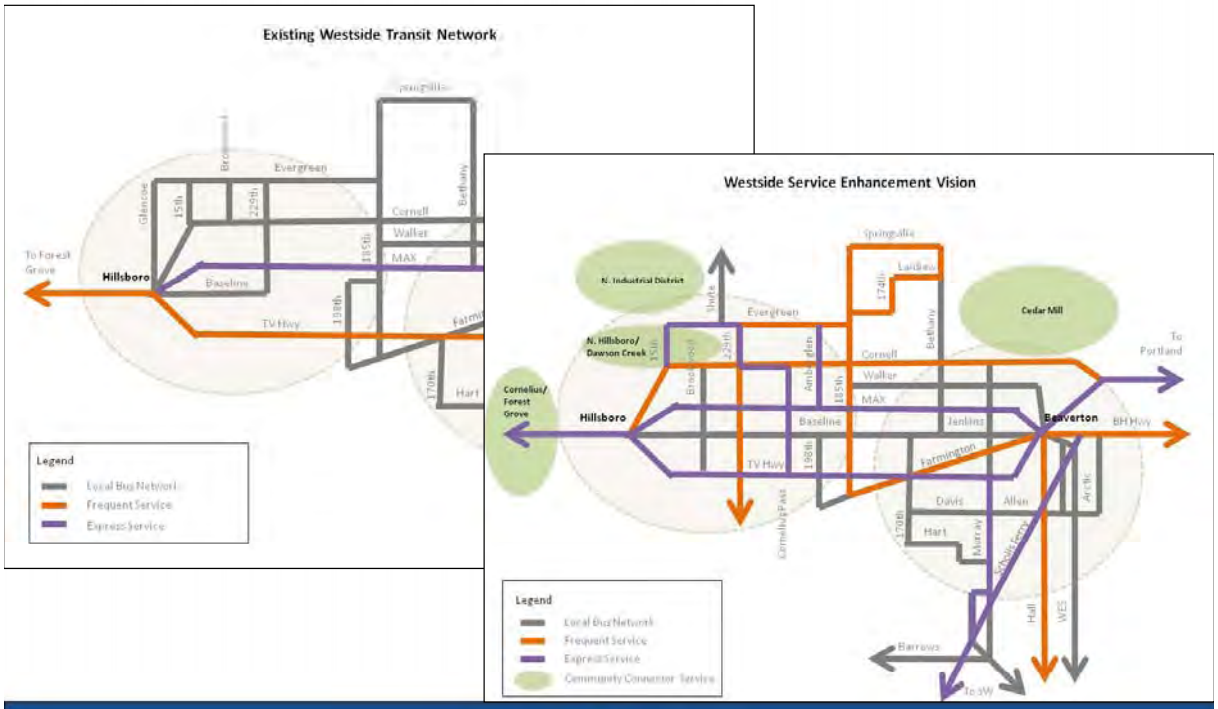
The Vision



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Climate Smart Communities

- Initial testing suggests transit performs well
- Outreach to date suggests public support
- Transit growth in Climate Smart scenario will be guided by Service Enhancement Plans

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Full Implementation

What It Will Take:

- Reform TriMet's cost structure
- Continued employment growth
- Partnerships for safer streets and transit priority

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FY 14 Budget Priorities

Budget reflects two key agency priorities:

- Fiscal Stability
- Service Reliability

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Fiscal Stability

- Medical Benefits
  - To maintain and grow the system to meet regional demands, reducing growth in active and retiree medical benefit costs is an absolute necessity.
  - This is TriMet's number one priority to ensure long-term fiscal sustainability.
- Pension Funding
  - Currently, the union defined benefit plan is 52% funded. In this budget, TriMet will increase funding of this plan.

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Service Reliability

- Stability for Riders
  - Assumes no fare increases and no service cuts this year
- State of Good Repair
  - Substantially increases bus replacements and uses new federal funds to rehabilitate older portions of rail system
- Service Fixes
  - Adds service to address overcrowded lines, poor connectivity and delays due to increased congestion
  - Delivers first increment of Westside Service Enhancement

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FY 14 Budget Assumptions

Key revenue and expenditure assumptions:

- Modest growth
- No federal funding surprises
- TriMet's current labor contract proposal is successful
  - July 2012 binding interest arbitration decision is upheld

Priorities

- Adds operators to deal with service hours issue
- Bus replacement purchases increase and accelerate
  - From 40/year planned for FY13-FY16 (160 buses) up to 254
    - **FY13 – 70 buses**
    - **FY14 – 64 buses**
    - **FY15 – 64 buses**
    - **FY16 – 60 buses**

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Federal Funding

- MTIP Regional Flexible Funds
- Other Federal funds
  - Formula Rail & Bus Maintenance
  - Grants (e.g., clean fuels) bus purchases
  - Transit Enhancements
  - JARC
  - New Freedom

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MTIP Regional Flexible Funds

Historically, TriMet has received funds for:

- High Capacity Transit bonding ($15M/yr)
- Bus Stop Development Program ($500K)
- Employer Outreach ($400K through RTO)

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RFFA High Capacity Bonds

Sold June 2011 and programmed for:

- $119.0 million for the PMLR project
- $13.3 million for WES via bus purchases
- $6.0 million for SW Corridor project
- $6.0 million for Lake Oswego
- $10.1 million for capitalized interest fund
- $1 million cost of issuance
  - Overall true interest cost was 3.89%
  - Bonds will mature 2016 – 2027

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Capital Investments

Portland-Milwaukie LRT Project

- On schedule and on budget for Fall 2015 opening (40% complete)
- FFGA signed May 2012
  - $94.5M in FY13, $100M each for FY14-18

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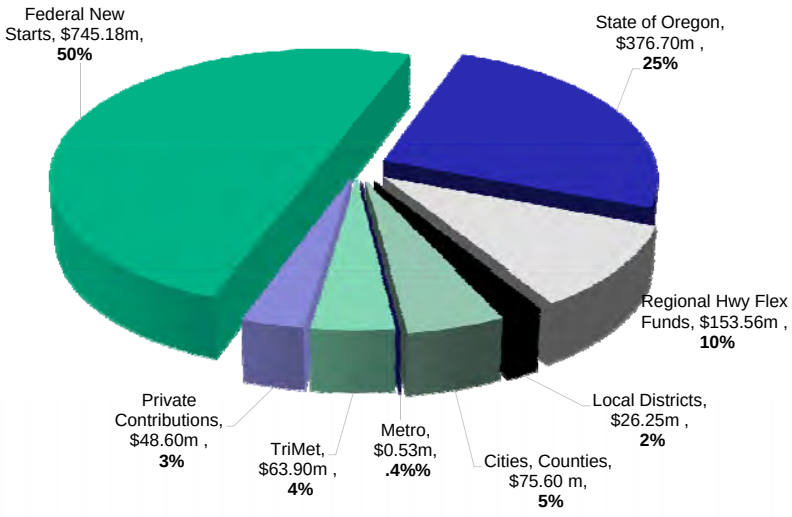
Portland-Milwaukie LRT funded with local partners

State of Oregon
Metro/region flex funds
City of Portland
Portland Development Commission
Clackamas County
City of Milwaukie
TriMet
Local property donations:
- Portland
- OHSU
- Willamette Shore Line
- ZRZ
- PCC
- PSU



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Bus Stop Development Program

Capital Asset Management & Investment Program *Facilities – Customer & Operations* *Bus Stop Development Program*

Bus Stop Development Program Summary

Facilities - Customer & Operations - Bus Stop Development	FY14	FY15	FY16	FY17	FY18	FY 2014-2018 TOTALS
New Shelters Forecast	15	15	15	15	15	75
Operating Program						
Project Planning FTE Positions (8.0) - included in baseline operating budget	$ 736,566	$ 758,663	$ 781,423	$ 804,866	$ 829,012	$ 3,910,529
Operating Program Total (included in baseline operating budget)	*$ 736,566*	*$ 758,663*	*$ 781,423*	*$ 804,866*	*$ 829,012*	*$ 3,910,529*
Capital Program						
New Shelters & Amenities	$ 158,000	$ 166,000	$ 174,000	$ 194,000	$ -	$ 692,000
Pavement, pedestrian and ADA Improvements	$ 150,000	$ 380,000	$ 338,000	$ -	$ -	$ 868,000
Bus Stop Signs and Poles/Solar Lighting	$ 55,000	$ 72,000	$ 75,000	$ -	$ -	$ 202,000
Transit Safety Enhancements	$ 100,000	$ 100,000	$ 100,000	$ -	$ -	$ 300,000
Streamline/TSM Treatments	$ 57,680	$ 100,000	$ 125,000	$ -	$ -	$ 282,680
Capital Program Total	*$ 520,680*	*$ 818,000*	*$ 812,000*	*$ 194,000*	*$ -*	*$ 2,344,680*
Bus Stop Development Total	$ 1,257,246	$ 1,576,663	$ 1,593,423	$ 998,866	$ 829,012	$ 6,255,209
Funding Sources						
Regional MTIP (89.73%)	$ 467,206	TBA	TBA	TBA	TBA	$ 467,206
TriMet General Funds (10.27%)	$ 53,474	$ 818,000	$ 812,000	$ 194,000	$ -	$ 1,877,474
Funding Sources Total	$ 520,680	$ 818,000	$ 812,000	$ 194,000	$ -	$ 2,344,680

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Program Highlights

Streamline – Signal Priority Expansion (Gresham)

- Expanding signal priority on Division St (7 signals)

Safe Crossings – Rectangular Rapid Flash Beacons

- Partnered with City of Portland to improve 6 crossings

Sidewalks, Pads & Curb Cuts

- Improve 30+ bus stops

Shelters & Amenities

- Upsized shelters at a number of high ridership stops; installed 10 new shelters; added 36 seating benches.

Solar Lighting Enhancements

- Install brighter LED light kits at 30 stops.

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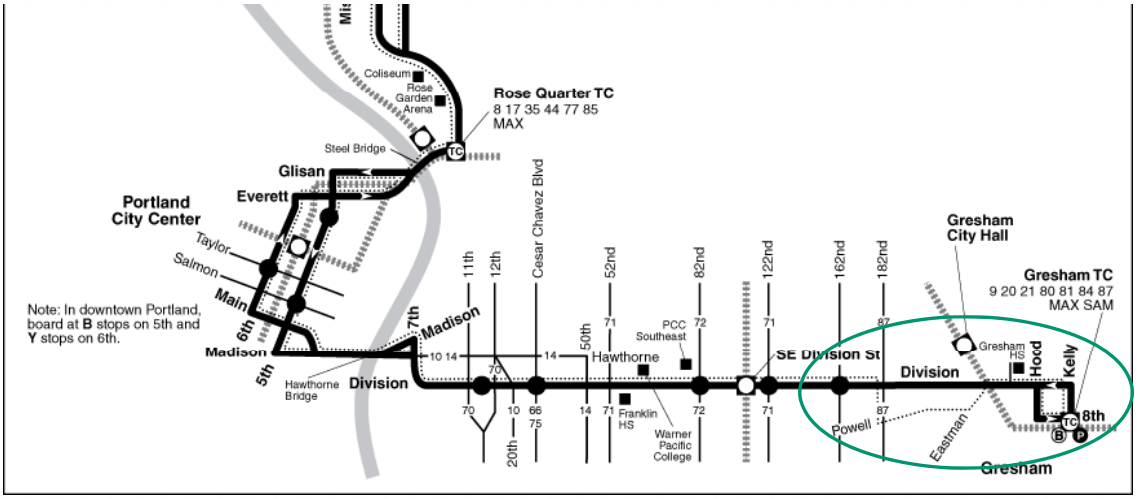
Signal Priority



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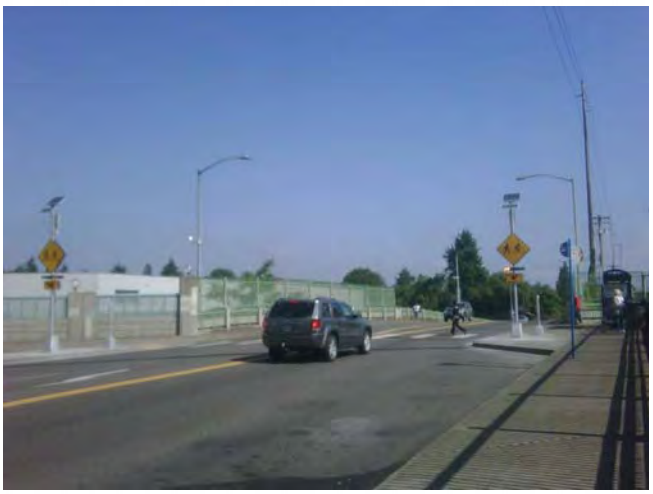
Safe Crossings



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Pedestrian Access Improvements

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High Capacity Shelters & Seating

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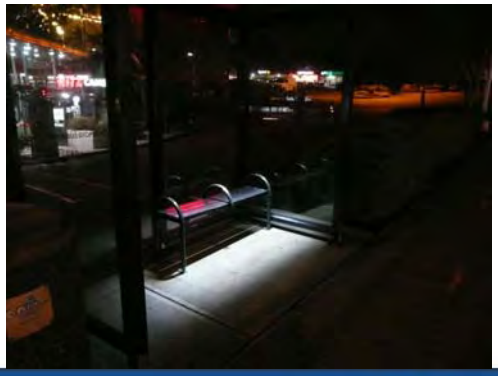
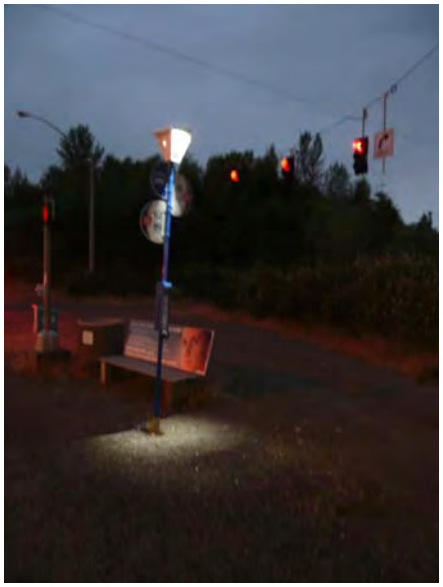
Solar Lighting - Safety





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Partners needed

- Bus Stop Development no longer funded by MTIP
  - Needed improvements often not in TriMet's control
  - Expands safe access to transit and enhances community livability

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Formula and Grants including Transit Enhancements

- Old formulas gone with MAP-21
- 5307 Urbanized Area Formula down slightly
- 5337 State of Good Repair increased $7M/yr
- New 5339 Bus formula added $2.5M/yr

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5307 Program Update

- FY14 estimate: $34.6M
- Programmed for State of Good Repair & Bus and Rail Preventative Maintenance
  - Accelerated Bus Replacement
  - Type 2 LRV overhauls
  - Renew the Blue
  - Steel Bridge fix

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Job Access Reverse Commute (JARC)

- Approximately $600-750K per year
- Transportation to jobs for low-income individuals
- Program eliminated in MAP-21, but some funding continues in consolidated program (no room in 5307)
- TriMet distributing remaining funds in FY14 and ramping down existing projects using leftover funds
  - Shuttles in Tualatin, Tigard, Swan Island, Clackamas CC

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New Freedom

- Eliminated in MAP-21, but reduced funding continues
- Folded into 5310 Elderly and Disabled Transportation Program ($1.5M for FY14)
- State program provides ~$400K per year for community-based transportation services for elderly and disabled.
- Coordinated by Special Transportation Fund Advisory Committee through the Coordinated Transportation Plan
  - FY13-15 grants awarded for community services and vehicles (RideConnection)

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Summary

- Without changes to unsustainable healthcare costs, TriMet will face a service crisis
  - #1 Fiscal Priority
- Confident we will fix the problem, we're working with partners to develop a bold regional vision for transit.
  - Service Enhancement Plan and Climate Smart Scenarios
- FY14 budget is a step in the right direction
  - Contract negotiations are finally getting started?

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Questions and Discussion

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www.oregonmetro.gov/rtp

2014 Regional Transportation Plan update

Transportation Policy Alternatives Committee
May 31, 2013

John Mermin, project manager

Metro | *Making a great place*

Why Now?

- Required every 4 years
- Current plan expires September 2014
- If plan "lapses" we **cannot obligate any federal transportation funds**

What's Required? (Federal) 2014

- MAP-21 & other new Federal requirements
  - Environmental justice and other Title VI updated planning requirements
  - National Highway System
  - Performance management

What's Required? (State) 2014

- Projects & functional classification changes
  - **Corridor plans** (Southwest, East Metro, Tualatin Valley Highway)
  - **Local TSPs** (Beaverton, Tigard, Tualatin, Wood Village, Oregon City, Wilsonville, Gresham, Milwaukie, Clackamas County)
  - **Freight functional classification** update

Regional initiatives

- Active Transportation Plan recommendations
- Regional Safety Plan recommendations
- Auxiliary lane definition and policy discussion



What's coming in the next RTP update? (2018)

- Federal
  - New reauthorization requirements
- State
  - Climate Smart Communities Scenarios
  - Oregon Highway Plan - mobility policy update
- Recommended regional initiatives
  - Update regional transportation functional plan, incorporate Metro equity strategy, update parking policy, and more…!

Timeline…

End of September 2013

- Project solicitation packet completed
- Financial assumptions finalized
- Policy updates prepared
- Existing conditions “snapshot” completed

End of December 2013

- Updated project lists submitted to Metro
- Collaboration with Metro equity initiative
- Updated policies

…Timeline

End of March 2014

- Initial air quality testing and system performance complete
- Draft plan released for public review

July 2014

- Final air quality conformity completed
- Plan adopted and submitted to USDOT and DLCD

Coordination with other Metro initiatives

- Corridor planning efforts
- Metro Equity Strategy
- Climate Smart Communities (e.g. existing conditions "snapshot")
- Others?

Next Steps

June 13	JPACT briefing
June 25	Metro Council briefing
June 28	TPAC briefing
July 11	JPACT action on work program
July 18	Metro Council action on work program