600 NE Grand Ave.
Portland, OR 97232-2736

Metro | *Agenda*

Meeting: Metro Policy Advisory Committee (MPAC)
Date: Wednesday, Feb. 26, 2013
Time: 5 to 7 p.m.
Place: Metro, Council Chamber

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5 PM	**1.**		**CALL TO ORDER**	**Jody Carson, Chair**
5:02 PM	**2.**		**SELF INTRODUCTIONS & COMMUNICATIONS**	**Jody Carson, Chair**
5:05 PM	**3.**		**CITIZEN COMMUNICATIONS ON NON-AGENDA ITEMS**	
5:08 PM	**4.**		**COUNCIL UPDATE**	
5:12 PM	**5.**	*	**CONSIDERATION OF THE FEB. 12, 2014 MINUTES**	
		*	**CONSIDERATION OF THE JAN. 22, 2014 MINUTES**	
		*	**MTAC Nominations for MPAC Consideration**	
5:15 PM	**6.**	*	Oregon Statewide Transportation Strategy Vision and Short-Term Implementation Plan INFORMATION • Outcome: Increased understanding of the elements of the STS and its short-term implementation plan to inform future discussions on the Climate Smart Communities Scenarios Project.	**Amanda Pietz, ODOT**

Continued on back…

5:45 PM	**7.**	*	Climate Smart Communities Scenarios Project: -- Community-based approaches to shaping the future of transit - Information/Discussion o TriMet Service Enhancement Plans o GroveLink o Shuttle in the Woods o Tualatin Shuttle • Outcome: Increased understanding of TriMet's Service Enhancement Plans and the innovative partnerships that TriMet, businesses and community organizations have formed to create great communities and help reduce greenhouse emissions.	Craig Prosser, TriMet Board Tom Mills and Steve Kautz, TriMet staff Mayor Pete Truax, City of Forest Grove Roger Sabrowski, Transportation Manager, Mary's Woods at Marylhurst Linda Moholt, Executive Director, Tualatin Chamber of Commerce
6:55 PM	**8.**		**MPAC MEMBER COMMUNICATION**	
7 PM	**9.**		**ADJOURN**	**Jody Carson, Chair**

Upcoming MPAC Meetings:

- Wednesday, March 26 from 5 to 7 p.m. at the Metro Regional Center, Council Chamber.
- Wednesday, April 9 from 5 to 7 p.m. at the Metro Regional Center, Council Chamber.
- Wednesday, April 23 from 5 to 7 p.m. at the Metro Regional Center, Council Chamber.

* Material included in the packet.
** Material will be distributed in advance of the meeting.

For agenda and schedule information, call Kelsey Newell at 503-797-1916, e-mail: *kelsey.newell@oregonmetro.gov*.
To check on closure or cancellations during inclement weather please call 503-797-1700.

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2014 MPAC Tentative Agendas

As of 2/19/14

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

MPAC Meeting	**MPAC Meeting**
Wednesday, March 26, 2014 · *Overview of public review draft Regional Transportation Plan– Information* · *Preview of public review draft Regional Active Transportation Plan work group refinements – Information* · *Climate Smart Communities Scenarios Project – Step 3 background information on innovative approaches that local, regional and state partners are using to make travel more safe, efficient and reliable – Information/Discussion* o *Freeway and arterial corridor management* o *Statewide programs* o *Neighborhood programs* o *Commuter programs* FYI: National Assoc. of Counties (NACo) Congressional Conference, Washington, DC, March 1-5 FYI: National League of Cities, Washington, DC, March 8-12	Wednesday, April 9, 2014 Meeting Canceled HOLD: Early April: Joint MPAC/JPACT Meeting on Climate Smart Communities Project on April 11th

MPAC Meeting Wednesday, April 23, 2014 · *Solid Waste Community Enhancement Program Improvements – Information* · *Growth Management Decision: Preliminary 20-year range forecast for regional population and employment growth – Information/discussion* · *Findings from the 2014 RTP and 2015-2018 MTIP Environmental Justice and Title VI analysis – Information / discussion* · *Climate Smart Communities Scenarios Project – Discuss findings and recommendations from Health Impact Assessment – Oregon Health Authority - Information/Discussion* · *Post 2014 Legislative Session Update – Information* FYI: April 21 – 22, Oregon Active Transportation Summit, Portland, OR	**MPAC Meeting** Wednesday, May 14, 2014 · *Climate Smart Communities Scenarios: Preview of draft public engagement report and emerging ideas for draft preferred approach – Information and discussion* · *Preliminary approval of the 2014 RTP pending air quality conformity determination and public comment period* · *Preliminary approval of the Regional Active Transportation Plan per public comment received – Recommendation to the Metro Council requested* · *Community Planning and Development Grants – Discussion of program goals, criteria and funding* · *Land Conservation and Development Commission strategic plan – Information* HOLD: Mid-May 30th: Joint MPAC/JPACT Meeting *Climate Smart Communities Scenarios Project: Approval of draft preferred approach, subject to final evaluation and public review – Recommendation to the Metro Council* FYI: May 14-17, WTS International Annual Conference, Portland OR
MPAC Meeting Wednesday, May 28, 2014 Meeting Canceled	**MPAC Meeting** Wednesday, June 11, 2014 · *Construction Excise Tax potential renewal – Recommendation to the Metro Council on program goals, criteria and funding* · *Streetcar Evaluation Methods Project: Discuss preliminary results of FTA funded research project focused on developing tools to better understand economic impacts of streetcar investments – Seek MPAC input on next steps in work program*
MPAC Meeting Wednesday, June 25, 2014 · *Approval of the ATP – Recommendation to the Metro Council requested* · *2014 RTP ordinance – Final recommendation to the Metro Council requested*	**MPAC Meeting – HOLD Tour of GroveLink** Wednesday, July 9, 2014 FYI: National Assoc. of Counties (NACo) Annual Conference, New Orleans, LA, July 11-14
MPAC Meeting Wednesday, July 23, 2014 · *Growth Management Decision: Release Draft 2014 Urban Growth Report – Information/discussion*	**MPAC Meeting** Wednesday, August 13, 2014 · *Climate Smart Communities Scenarios Project: Discuss draft Regional Framework Plan amendments and near-term implementation recommendations (Step 6) – Information/Discussion*

MPAC Meeting Wednesday, Sept. 10, 2014 · *Climate Smart Communities Scenarios Project: Discuss evaluation results and public review draft preferred approach (Step 7) – Information/Discussion* · *Growth Management Decision: Results of regional Residential Preference Survey – Information/discussion* FYI: A 45-day comment period is planned from Sept. 5 to Oct. 20, 2014 on the Climate Smart Communities public review draft preferred approach. HOLD: Sept./Oct.: Joint MPAC/JPACT Meeting, if needed FYI: 2014 Rail~Volution, Minneapolis, MN, September 21 – 24	**MPAC Meeting** Wednesday, Oct. 8, 2014 · *Climate Smart Communities Scenarios Project: Review public comments received to date and begin discussion of recommendation to Metro Council on adoption of the preferred approach (Step 7)– Discussion* · *Growth Management Decision: Discuss recommendation to Metro Council on whether Council should accept 2014 Urban Growth Report as basis for subsequent growth management decision – discussion and begin drafting recommendations* · *Discussion on 2015 legislative session and possible shared regional agenda – Discussion*
MPAC Meeting Wednesday, Oct. 22, 2014 · *Climate Smart Communities Scenarios Project: Continued discussion and finalization of recommendation to the Metro Council on adoption of the preferred approach (Step 7) – Discussion* · *Growth Management Decision: Continued discussion and finalization of recommendation to Metro Council*	**MPAC Meeting** Wednesday, Nov. 12, 2014 · *Climate Smart Communities Scenarios Project: Adoption of the preferred approach (Step 8) – Recommendation to the Metro Council requested* · *Growth Management Decision: Recommendation to Metro Council on whether Council should accept 2014 Urban Growth Report as basis for subsequent growth management decision – recommendation* FYI: National League of Cities Congress of Cities and Exposition, Austin, TX, November 18 - 22
MPAC Meeting Wednesday, Dec. 10, 2014	

Parking Lot:

- Presentation on health & land use featuring local projects from around the region
- Affordable Housing opportunities, tools and strategies
- Greater Portland, Inc. Presentation on the Metropolitan Export Initiative
- MPAC composition
- "Unsettling Profiles" presentation by Coalition of Communities of Color
- Tour of the City of Wilsonville's Villebois community

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METRO POLICY ADVISORY COMMITTEE
January 22, 2014
Metro Regional Center, Council Chamber

MEMBERS PRESENT	**AFFILIATION**
Ruth Adkins	PPS, Governing Body of School Districts
Jody Carson, *Chair*	City of West Linn, Clackamas Co. Other Cities
Sam Chase	Metro Council
Tim Clark	City of Wood Village, Multnomah Co. Other Cities
Kathryn Harrington	Metro Council
Maxine Fitzpatrick	Citizen, Multnomah Co. Citizen
Marilyn McWilliams	Tualatin Valley Water District, Washington Co. Special Districts
Anne McEnerny-Ogle	City of Vancouver
Wilda Parks	Citizen, Clackamas Co. Citizen
Martha Schrader	Clackamas County
Bob Stacey	Metro Council
Peter Truax*, 1st Vice Chair*	City of Forest Grove, Washington Co. Other Cities
Aron Carleson	City of Hillsboro, Washington Co. Largest City

MEMBERS EXCUSED	**AFFILIATION**
Andy Duyck	Washington County Commission
Karylinn Echols	City of Gresham
Charlie Hales	City of Portland
Tom Imeson	Port of Portland
Doug Neeley	City of Oregon City, Clackamas Co. 2nd Largest City
Charlynn Newton	City of North Plains, City in Washington Co. Outside the UGB
Craig Prosser	TriMet
Jim Rue	Oregon Dept. of Land Conservation & Development
Loretta Smith	Multnomah County
Steve Stuart	Clark County

ALTERNATES PRESENT	**AFFILIATION**
Aron Carleson	City of Hillsboro, representing Washington Co. Largest City
Dick Jones	Clackamas County Special Districts
Marc San Soucie	City of Beaverton, Washington Co. 2nd Largest City

Staff:
Kim Ellis, John Williams, Ina Zucker, Kelsey Newell, Ted Reid, Dennis Yee, Alison Kean, Andy Cotugno, Scott Robinson, Andy Shaw and Jessica Rojas

1. CALL TO ORDER AND DECLARATION OF A QUORUM

MPAC Chair Jody Carson called the meeting to order at 5:05 p.m. and declared a quorum at 5:10 p.m.

2. SELF INTRODUCTIONS & COMMUNICATIONS

All attendees introduced themselves.

3. CITIZEN COMMUNICATION ON NON-AGENDA ITEMS

There were no citizen communications on non-agenda items.

4. COUNCIL UPDATE

- Councilor Sam Chase delivered the Metro update. Metro is in the review process of the Community Planning and Development Grants program. More than $14 million has been awarded to over 60 planning projects across the region since 2006. Metro appointed a stakeholder advisory committee to look at overall performance and achievement since the program was created. The stakeholder advisory committee includes staff from local governments, realtors, land use advocacy organizations, private-sector land use planners, architects and other consultants. Councilor Sam Chase will serve as the Metro Council liaison to the committee. The stakeholder advisory committee will meet three times between now and the end of April, and will provide recommendations to Metro COO. Recommendations will come to MPAC for further discussion in May.

- The Construction excise tax is due to expire at the end of September. Metro Council must act before the end of June if the tax is to be extended. Councilor Chase will continue to provide updates on this topic.

- Metro debuted "Our Big Backyard", a quarterly magazine that provides coverage of parks, trails and natural areas. Our Big Backyard replaces Green Scene, as a result of feedback received through an audience survey. Each edition will include feature stories, field guides, Q&As, event previews and coverage related to important choices that face the region. Special thanks to Mayor Neeley and many other partners in Oregon City for helping us tell the story of Newell Creek Canyon in this first edition. To launch public involvement for upcoming investments in Newell Creek Canyon, an edition was mailed to every household in Oregon City. Metro is considering specialized mailings in the future when a cover story may be of particular interest to one of the communities in our region.

- Councilor Chase reminded members that they are invited to celebrate the Willamette Falls Legacy Project in Oregon City, Thursday, Feb. 6th at the KEEN Building in the Pearl District. The master plan is being completed and will be presented to the Oregon City Planning Commission and City Commission this spring.
- MPAC members also recognized Kelsey Newell, Regional Engagement Coordinator, who is leaving for Australia, for her supportive work with MPAC and Metro.

5. MOTION: Ruth Adkins moved, Dick Jones seconded to approve the MPAC Minutes from January 8, 2014.
ACTION: With all in favor, the motion passed.

6. REVIEW 2014 WORK PROGRAM AND POSSIBLE MEETING TOPICS

Chair Jody Carson suggested to members to look ahead into the tentative agendas and gauge whether certain topics may need more time on the agenda as well as tours that could be considered. Meeting dates with no agenda items should be considered for cancelation ahead of time. Possible tour suggestions included Hillsboro's vehicle charging stations and Forest Grove's public transportation efforts.
Member comments included:

- July 9th was suggested as a possible date to visit Forest Grove.
- Looking in to affordable housing choices, as it intersects with healthcare was suggested for the tentative work agenda.
- Councilor Chase mentioned the Coalition of Communities of Color Report "Unsettling Profiles" as a resource to the committee. The report outlines disparities that exist regionally and includes specific policy recommendations.
- Councilor Kathryn Harrington brought to attention a Metro Council meeting that will be held out of district. On Tuesday, Feb. 25th Metro will hold a Council meeting in Forest Grove at the Community Auditorium from 5 to 7p.m.
- Reminder of the upcoming trip to Washington D.C. for JPACT committee as an opportunity for the region to develop a well coordinated request for transportation package. MPAC members may want to consider coordinating efforts prior to a D.C. trip at the Feb. 12th MPAC meeting.
- A reminder that JPACT and Metro Council adopted federal priorities in December in preparation for the JPACT trip to D.C. Members will receive an update on preparation details.

7. POWELL-DIVISION TRANSIT AND DEVELOPMENT PROJECT

Brain Monberg of Metro provided an overview of the Powell-Division Transit and Development Project. The project is a coordinated effort between the cities of Portland and Gresham in securing community involvement and creating economic development. Background information as to why the project is being implemented and the steps involved in the planning phase were included. Supportive reasons for the project include:

- High population density along the corridor, designated as a priority in the Regional High Capacity Transit Plan.
- The connection between the downtowns of the two largest cities in the region, as well as the connection to light rail lines.
- High demand through existing ridership is evident.
- Location is recognized as an educational corridor, connecting citizens with key institutions.
- Recommended for development from the East Metro Connections Plan.

Mr. Monberg reviewed the milestones and planning aspects, which included identifying key locations that promote future opportunity for transit and economic development. Steps involve:

- Consideration of policies and projects to support stations, adjacent uses, buildings and public spaces.
- Public input will be included in the planning phase, such as feedback on proposed vehicle mode, route, and station areas.
- Identifying land use considerations and developing transit alternatives, assessing those opportunities, refining the assessment and coming to an agreement by winter 2014.

Following the planning phase is the implementation strategy that will include the overall design plans, environmental study and permitting processes. The development and building plans will

entail funding discussions and securing future transit supportive development opportunities. Community partners in the project include neighborhood associations, major employers, local nonprofits and higher education facilities.
Member comments included:

- Members questioned whether the proposed corridor was an appropriate location for housing to be sited.
- Members questioned how the transit and housing discussion occurs in such proposed projects with regards to job and educational opportunity development.

Mr. Monberg referred to the efforts of the Jade District Neighborhood Prosperity Initiative to foster economic opportunity in building neighborhood vitality in a thoughtful manner. Catholic Charities, a non-profit organization, is one of those involved in the development of transit-oriented housing in the target area. Members were invited to provide feedback on this matter.

Councilor Bob Stacey mentioned that he and Councilor Shirley Craddick serve as co-chairs of the steering committee, and he also serves as a co-chair on the SW Corridor Project. If members have questions about this project, he can serve as a contact.

- Members commented on the Division-Powell demographics of poverty and ethnicity outlined in the PowerPoint presentation. The data gathered is relative to Metro's six desired regional outcomes in terms of equity.
- Members inquired about efforts to encourage job growth in the proposed area.

Mr. Monberg responded that there is discussion with regard to job development and lessening commute times and referred to the East Portland Action Plan to address that effort. Port of Portland property mentioned as a site that carries potential in improving access to job creation.

8. 2014 REGIONAL TRANSPORTATION PLAN PROCESS UPDATE

John Mermin of Metro provided an update on the status of the 2014 Regional Transportation Plan process. The Regional Transportation Plan (RTP) is the long-range plan that helps guide regional and local transportation planning. The State of Oregon considers the Regional Transportation Plan to be a land use action and Mr. Mermin will be asking for MPAC's recommendation to Metro Council to approve the plan in June 2014. The current RTP was shaped by regional goals that council adopted in 2010. The RTP consists of over a thousand projects compiled from local plans and funded by federal, state and local entities. Partners in the development of the project include local cities, counties, TriMet and SMART, ODOT and the Port of Portland. Metro's role is to compile the various projects into a single regional system that works across jurisdictional boundaries.

Mr. Mermin explained that federal mandate requires metropolitan regions to maintain a Regional Transportation Plan that is updated every four years. The RTP must cover a 25 -year period and failing to update an RTP could result in a freeze of federal transportation funds to the region. In addition to federal requirements, the RTP is subject to a state mandate to develop a Transportation System Plan (TSP).) The state requires cities and counties to adopt a local TSP that is consistent with the regional TSP. Following the RTP update, local TSPs are updated subject to a timeline t. Next Steps for the 2014 RTP update process include:

- Review by MPAC of the draft RTP and ATP by March 26th, 2014.
- The public will have opportunity to comment from March 21 – May 5, 2014.

- The preliminary approval process will take place during the May 14th MPAC meeting.
- Air quality modeling and comment period will take place during May - June 2014.
- The final action on this matter by JPACT and Metro Council is scheduled for July.

Councilor Harrington inquired whether all of the projects have already gone through a public comment process. Mr. Mermin confirmed that the projects have come out of adopted local plans where they went through a public comment process.

9. CLIMATE SMART COMMUNITIES SCENARIOS PROJECT COMMUNITY: CASE STUDIES

Chair Carson introduced the Climate Smart Communities Scenarios Project as the last item on the agenda. The cities of Hillsboro, Wilsonville and Beaverton presented about investments and actions taken in their communities to reduce greenhouse gas emissions.

Councilor Stacey reviewed the proposed process for developing a preferred approach in 2014 that was presented by Kim Ellis of Metro at the last meeting. Councilor Stacey also addressed upcoming MPAC/JPACT milestones for shaping and adopting a preferred approach that supports community visions and meets the state target. Staff will begin polling members and alternates on availability for the two-joint Council, MPAC and JPACT meetings scheduled for this spring, April and May 2014. He indicated that members will have an opportunity to discuss the process during the Feb. 12th MPAC meeting, at which time Metro staff will seek the committee's approval to move forward with the process as proposed.

President Aron Carleson of Hillsboro City Council and Peter Brandom, Hillsboro's Sustainability Program Manager, gave a brief presentation on their work in regards to the Climate Smart Communities project. Since 2006, the city has met with local businesses and experts to assess how infrastructure could become more environmentally efficient.
Steps taken include:

- LEED certification for their fire station and local school buildings.
- Installation of a bus station bike hub, improving access to public transit.
- City council adopted a resolution for energy reduction, addressing over 60 facilities, reducing overall energy consumption by over 90%.
- Redesign traffic signal coordination to operate more efficiently. Installed fully adaptive cameras at traffic signals, reducing carbon dioxide levels and improving air quality.
- The original plan adapted to 2020 is now extended into 2035. Also highlighted were the city's efforts in utilizing green power, now host to 35 car-charging units, with local businesses also involved as providers.

Mayor Tim Knapp, City of Wilsonville presented on the City of Wilsonville's efforts that support the Climate Smart Communities project goals. Wilsonville has focused on areas' community design and other initiatives, such as expanding opportunities for walking and biking in the city and providing local transit service that connects to TriMet's regional service. Their City Council focused on strategic goals:

- Integration of neighborhoods, work, services, and recreation.
- A focus on connectivity between neighborhoods and destinations.
- Accommodating for growth while reaching goals.

Challenges that were faced during the process were outlined. Mayor Knapp acknowledged increasing traffic congestion along the I-5 corridor was hampering freight movement and access to local jobs, which impacts the local economy. Resident demographics reveal that at least 90% of the employees working in the city live in other communities. By acknowledging the barriers that the Willamette River and I-5 pose, focus was turned towards increasing bike and pedestrian access throughout the community. Mayor Knapp discussed the efforts taken to increase access to transit. Keys to success include:

- Thoughtful land use linking jobs with housing, retail, parks, and other destinations.
- Focus on connecting places with transportation choices.
- Cultivate community involvement and support.
- Develop and foster public-private partnerships.
- Support local businesses with transportation options.
- Ensure residents and employees are informed and confident about using their travel options.
- Leverage location in the Willamette Valley between Portland and Salem.

Councilor Marc San Soucie of Beaverton City Council presented on Beaverton's efforts. An overview included challenges faced by Beaverton such as the major transportation corridors that divide the north and south parts of town. Consideration of the high volume of traffic, long blocks, and limited pedestrian crossings had to be addressed. The city is also addressing the aging infrastructure and underutilized development opportunities that exist. Strategies involve looking at mixed-use development, considering traffic/parking management and addressing transit, bike and pedestrian needs. Plans and investments taken by the city were shared, including:

- Focus on bringing in more employment, housing and transit to downtown.
- Improve conditions for walking and biking.
- Improve traffic operation by coordinating the timing signals.
- Transformation of Canyon Road to a pedestrian-friendly boulevard.
- Connect people with nature though improvement of local creek.

Member comments include:

- Councilor Harrington recognized Mayor Knapp and Wilsonville as a good example in generating involvement. He attends the annual Smart Growth Conference and encourages his community to attend to be exposed to different ideas.
- Members encouraged city managers and planners to visit other parts of the region to learn about their efforts in developing housing, transit and new schools.
- Mayor Knapp cited history with Metro in planning for a long term strategy including looking at the potential of adding areas to the UGB.
- Chair Carson inquired whether the City of Wilsonville tracks information about where people are commuting from to work in Wilsonville.

Mayor Knapp responded that in 2007, the city created a map of zip codes that are feeding into Wilsonville.

- Chair Carson acknowledged that this occurs in Clackamas County. She questioned how to connect to the outlying community so those people commuting will not have to come to downtown Portland for transfers. She suggested looking into other transit options.
- Councilor Stacey questioned how smart signalization coordination works with the ownership of the cameras.

Aaron Carleson responded that the cameras are owned by the county. She acknowledged the difference between adaptive and video.

10. ADJOURN

Chair Carson adjourned the meeting at 6:55 p.m.

Respectfully Submitted,

Jessica Rojas

Recording Secretary

ATTACHMENTS TO THE PUBLIC RECORD FOR JANUARY 22, 2014

ITEM	DOCUMENT TYPE	DOC DATE	DOCUMENT DESCRIPTION	DOCUMENT NO.
4	Postcard	N/A	Willamette Falls First Thursday Invite	12214m-01
4	Newsletter	Winter 2014	Our Big Backyard	12214m-02
5	Handout	1/8/2014	January 8,2014 MPAC Minutes	12214m-03
7	PPT	N/A	Powell-Division Transit and Development Project	12214m-04
8	PPT	1/22/2014	RTP Status Update	12214m-05
9	Handout	1/17/2014	CSC Shaping Preferred Approach in 2014	12214m-06
9	PPT	N/A	City of Hillsboro Case Study	12214m-07

9	Brochure	N/A	Wilsonville Connectivity Action Plan	12214m-08
9	PPT	N/A	City of Wilsonville Case Study	12214m-09
9	PPT	N/A	City of Beaverton Case Study	12214m-10

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Metro | *Meeting minutes*

METRO POLICY ADVISORY COMMITTEE
February 12, 2014
Metro Regional Center, Council Chamber

MEMBERS PRESENT	**AFFILIATION**
Jody Carson, *Chair*	City of West Linn, Clackamas Co. Other Cities
Sam Chase	Metro Council
Tim Clark	City of Wood Village, Multnomah Co. Other Cities
Dennis Doyle	City of Beaverton, Washington Co. 2nd Largest City
Andy Duyck	Washington County Commission
Lise Glancy	Port of Portland
Kathryn Harrington	Metro Council
Jerry Hinton	City of Gresham
Dick Jones	Oak Lodge Water District
Anne McEnerny-Ogle	City of Vancouver
Craig Prosser	TriMet
Martha Schrader	Clackamas County
Bob Stacey	Metro Council
Peter Truax*, 1st Vice Chair*	City of Forest Grove, Washington Co. Other Cities
Jerry Willey	City of Hillsboro, Washington Co. Largest City

MEMBERS EXCUSED	**AFFILIATION**
Charlie Hales	City of Portland
Doug Neeley	City of Oregon City, Clackamas Co. 2nd Largest City
Charlynn Newton	City of North Plains, City in Washington Co. Outside the UGB
Loretta Smith	Multnomah County
Steve Stuart	Clark County

ALTERNATES PRESENT	**AFFILIATION**
Ed Gronke	Citizen, Clackamas Co. Citizen
Dick Jones	Clackamas County Special Districts
Carrie MacLaren	Oregon Dept. of Land Conservation & Development

Staff:
Kim Ellis, John Williams, Ina Zucker, Ted Reid, Dennis Yee, Alison Kean, Andy Cotugno, Scott Robinson, Andy Shaw and Jessica Rojas

1. CALL TO ORDER AND DECLARATION OF A QUORUM
MPAC Chair Jody Carson called the meeting to order and declared quorum at 5:08 p.m.

2. SELF INTRODUCTIONS & COMMUNICATIONS
All attendees introduced themselves. Chair Carson acknowledged the death of MPAC member William Wild. There will be a card at the next meeting to sign for his family. Please refer to his Caring Bridge page for information about upcoming services. Dick Jones, who served as his alternate, will be serving in his position on MPAC.

3. CITIZEN COMMUNICATION ON NON-AGENDA ITEMS
No citizen communication on non-agenda items were discussed.

4. COUNCIL UPDATE

- Councilor Kathryn Harrington provided an update on House Bill 4078, the Urban Growth Boundary appeals issue. Provided at the meeting was a letter from the Metro Council letter to the Oregon Legislature. The bill, as introduced, would have validated the Metro Council's 2011 UGB decision, irrespective of appeals that may be pending in the courts. The bill recently received a hearing in the House Rural Communities Committee on February 4th and is undergoing substantial changes. The Metro Council is concerned about legislative interference in local land use decisions and has proposed amendments to the bill that set deadlines for LCDC to submit written order once it rules on a UGB matter. Proposed amendments would also enable the Court of Appeals to rule on the 2011 UGB decision but set time limits for issuing a ruling as well as set time limits for the Court of Appeals review of future UGB and urban reserves decisions. There will be a work session on the bill to be held Thursday, Feb. 13, 2014.

- Councilor Harrington also reminded members of the upcoming joint MPAC and JPACT meetings on Climate Smart Communities, an opportunity for a shared discussion on transportation investments and priorities for community development. Members are asked to reserve 8 a.m. to noon on your calendars on Friday, April 11th and Friday, May 30th for the joint meetings. Councilor Harrington thanked everyone who provided feedback on meeting dates through the online survey. The locations of the meetings are still to be determined, with more information to come. Flyers for the joint meetings were also provided. The MPAC meetings on Weds April 9th and May 28th are canceled. The Metro Council will be holding a meeting in Forest Grove on Tuesday, Feb. 25, 2014 at the Forest Grove Community Auditorium from 5p.m. to 7 p.m. Topics include Forest Grove's economic development project and comprehensive plan, an update on Cornelius's downtown development projects, Pacific University's expansion plans and Metro's trail planning in Forest Grove.

- Councilor Harrington also acknowledged the work of Kelsey Newell, former MPAC Engagement Coordinator, as she recently moved to Australia. Metro Council staff is

picking up the responsibilities as interviews are conducted to find her replacement. Members were asked to keep close watch on their email for updates on this transition.

5. CONSENT AGENDA:

- **Consideration of the Jan. 22, 2014 Minutes**
- **MTAC Member Nominations**

Members decided that the Jan. 22, 2014 Minutes will be approved at the next meeting.
MOTION: Craig Prosser moved, Peter Truax seconded, to approve the consent agenda.

ACTION: With all in favor, the motion passed.

6. REVIEW THE REGION'S 2014 ADOPTED FEDERAL TRANSPORTATION PRIORITIES
Chair Carson provided opening comments, and reminded members that at the last MPAC meeting, Mayor Truax requested that MPAC be briefed on the region's lobby trip to Washington, DC. Andy Cotugno followed with a review of the regional policy positions adopted by JPACT and the Metro Council in December and the resolution of endorsement being considered this month. Mr. Cotugno also provided an overview of the Washington, DC activities.

Andy Cotugno provided handouts in relation to the recent regional policy positions adopted by JPACT and the Metro Council and presented Resolution No. 14-4501 for consideration by the MPAC committee. Mr. Cotugno explained that Resolution No. 13-4489, which was included in the meeting packet, has already been adopted. The resolution serves as a comprehensive statement as to what are the region's priorities and interests in federal transportation. Resolution No. 14-4501 has not been adopted yet, and endorses a specific proposal on the other resolution.

In preparation for when members travel to Washington, DC in March to request federal funding for transportation, supporting efforts to coordinate a regional request, a copy of Resolution No. 13-4489 was provided in context. Mr. Cotugno explained that there is concern for the general fund being at risk of sequestration. Revenue provided from current gas tax rates is also in decline due to improved fuel efficiency in the automotive industry. The general fund has been subsidizing the Highway Trust Fund and as the gas tax shrinks, the subsidy has grown to fill the needs. The rest of the resolution addresses issues of freight, bridge maintenance and highway repairs.
Resolution No. 14-4501 supports the principle of fixing it first through addressing highway funding issues. An advocacy group, Transportation for America, has proposed efforts to create a 30 billion dollar increase that will lay off the general fund and gain a 6 year funding bill that will grow over time. Transportation for America does not advocate for a specific solution, but offers recommendations to raise the money by emphasizing user based funding. Mr. Cotugno directed members' attention to several handouts provided, outlining the historical fund subsidy, and illustrating the needs in funding over time. If the proposal is not approved, there would be a severe reduction of funding to Oregon's transportation system. Also, sub allocations by region through the JPACT and MTIP allocation process would reveal a one-third reduction if increased funding doesn't happen.

Member comments included:

- Members expressed concern after meeting with Senator Merkley, as they did not feel the senator supported an increase in the gas tax.

Mr. Cotugno reminded members that the proposal doesn't get that specific about phasing of the gas tax, although Congressman Earl Blumenauer's proposal does.

- Members expressed concern for advocating for all the items in the report, if these items will receive federal support.

- Members expressed a concern for more certainty, and concern for the broadness of options presented by the advocacy group.

Mr. Cotugno clarified that the suggestions that come from Transportation for America are about addressing the level of spending. He realizes there is more than one way to fund this effort, yet the needs are such that require investment.

- Members questioned when Resolution No. 13-4489 was adopted, questioned which proposal was already adopted and what was on the table for adoption.

Mr. Cotugno clarified that Resolution No. 14-4501 hasn't been adopted yet; JPACT is considering it Thursday, Feb 13, 2014. Resolution 13-4489 was adopted in December 2013.

- MPAC Chair Carson suggested that the committee postpone taking action with a vote until more discussion can take place.

7. <u>Climate Smart Communities Project- Review opinion research compiled by DHM</u>

Chair Carson introduced the Climate Smart Communities Scenarios Project (CSC) as the next item on the agenda, with a presentation from Adam Davis of DHM Research**.** Metro Councilor Bob Stacey introduced Mr. Davis and provided context as to why he was invited to present and how he can help prepare MPAC for discussions on shaping the preferred approach in the work ahead. Councilor Stacey also reminded the committee that they have an action item on the current agenda for approval of the process recommended for shaping and the adoption of the preferred approach. Councilor Stacey introduced CSC project manager Kim Ellis and explained that she would review the process of shaping the preferred approach with the committee and ask their approval to move forward. Members were encouraged to use the opportunity to ask questions of both Mr. Davis and Ms. Ellis. The committee was reminded that approval of the item means MPAC is in agreement on how the project moves forward to shape and adopt the preferred approach in 2014.

Mr. Davis presented an overview of a compilation of recent public opinion and research on attitudes toward climate change, land use and transportation policies aimed at reducing greenhouse gas emissions. Handouts were provided at the meeting. Beginning with public attitudes about greenhouse gas emissions, Mr. Davis provided context about the general perceptions of public opinion to help members understand what people value about Oregon. The results showed that what Oregonians value includes beauty, clean air and water, outdoor recreation opportunities, a sense of community, and the local climate. He explained there is a strong link between these values and how people feel about climate change and greenhouse gas emissions.

Takeaways included:

- Tri-county residents and those across the state show strong support for protection of the environment and often will prioritize this over the economy.
- Protection of water and air was ranked 3rd in importance out of 20 public services; K-12 education ranked number one. Protection of forest and farmland took 5th place.
- 67% responded that greenhouse gas emissions is an urgent topic to address. 61% of respondents answered that government needs to adopt stronger policies to reduce greenhouse gas emissions.
- In the metropolitan area, 52% of those polled indicated somewhat in favor of taxes that prevent pollution. Consumption tax rated somewhat less, but the response was good.
- While driving alone continues to be the most frequent mode of transportation in the region, alternative modes like walking, bicycling, and transit. Oregonians generally support more investment in public transit and consider these investments a higher priority over new roads. Overall support for public transit has been increasing over the past decade in the region and across Oregon. Citizens also prioritize taking good care of Oregon's roads.

Mr. Davis explained that the answers are the result of asking questions in different ways. Respondents also identified a concern for how to reduce impact on how much time is spent in traffic, and a desire for improved bus service. Lower priorities among respondents were employer-paid bus passes and increased parking rates. Mr. Davis also acknowledged that respondents cited their best reason to reduce driving is to save money and be healthier. Recent studies show that more people are taking the bus and biking. Mr. Davis highlighted some of the trends related to "millennials," including that they tend to drive less, own fewer vehicles, rely on technology more and walk, bike and use transit more than previous generations. He also reported that respondents overall seemed more likely to purchase a hybrid vehicle versus electric vehicle, in part due to the cost.

In terms of land use, the respondents clearly value forests and farms. A majority of Metro area residents prefer to see new development in existing cities and towns to not into natural areas and farmlands to protect against sprawl.

Member questions and comments included:

- Members asked clarifying questions as to how the metro area is defined.
- Members asked if the data presented is tied to demographics of age and whether the two demographics track accordingly.

Mr. Davis responded that taxation and some other issues rate differently across age group, but most people share core values regardless of age and where they live.

- Members expressed concern differences in age and politics, and asked whether the poll reflects values similar to the voting population, and who has the most influence on decisions Metro makes.

- Councilor Harrington reminded members that when sharing this data and addressing questions about scientific validity in the findings present, there are several different valid sources cited in the presentation.

Mr. Davis assured members that the data presented has been validated by different methods, in qualitative and quantitative research. Steps have been taken to make sure this is a representative sample. No matter how it is asked, Mr. Davis assured that the value is reflected in the results.

8. Climate Smart Communities Project: Process Approval Requested

Councilor Stacey referred to the timeline road map on the Climate Smart Communities Project and reminded members of where the process is at currently. Step 3 will be the focus of the upcoming joint MPAC and JPACT meetings to shape the draft preferred approach. When the process gets to step 4, the discussion will turn to how to fund the steps.

Kim Ellis, project manager for the CSC project requested the committee's approval on the process as outlined. She reported that both MTAC and TPAC recommend moving forward with the process after identifying some refinements that have been incorporated into the process. Refinements recommended by MTAC and TPAC include:

- add language in Step one that is stronger with regards to the region's commitment to implement locally adopted plans.
- add language in Step 4 to emphasize the need to secure funding to implement adopted plans.
- add an opportunity for TPAC and MTAC to make formal recommendations to JPACT and MPAC prior to the May joint JPACT/MPAC meeting.
- Wait to determine which 2014 RTP level of investment to assume for streets and highways and active transportation (Step 1) until after the 2014 RTP system analysis is complete.

Member comments include:

- Members expressed satisfaction that language in the steps indicates that there is a need for support from the state, and agreed with the recommended refinements from TPAC and MTAC.
- Martha Schrader expressed gratitude for the work done, and indicated that Clackamas County supports more discussion. Ms. Schrader mentioned the options that are not being discussed and would like to see an expansion of policy items including how these policies will impact the economy and job creation.
- Members expressed concern over local control issues versus a regional mandate.

MOTION: Mayor Doyle moved to approve the process to move forward, Mayor Truax seconded.

ACTION: With all in favor, the Motioned passed.

Ms. Ellis requested input with regards to the sort of question or issues members want to address in the upcoming telephone survey that DHM will conduct in March. Members requested that materials be presented ahead of time, and any background information to help such as FAQ sheets that can be shared with communities. Ms. Ellis assured the committee that Metro will do what is possible to provide such resources.

9. Growth Management Decisions

Chair Carson provided context to the last agenda item as a part of a series of presentations on current economic conditions and how they influence the future outlook for population and employment growth. As MPAC weighs in on topics related to the Metro Council's 2015 urban growth management decision, Ted Reid and Dennis Yee of Metro will provide information about how Metro's past regional forecasts compare with actual population and employment growth.

Mr. Reid, Project Manager of the urban growth management decision, referred to the values presented by Adam Davis in relation to the work that Metro does in support of a regional vision, by focusing on transportation investments, brownfield cleanup, affordable housing, and making industrial sites development-ready. There are two phases to developing the urban growth boundary (UGB). The Urban Growth Report is a draft analysis, released in July. A final urban growth report will be considered in December that determines if there is enough space in the UGB for homes and jobs for the next 20 years. The urban growth report leads to the Councils' urban growth management decision by the end of 2015. MPAC will make recommendations on how to move forward on the project. MPAC will be asked to provide recommendations during both of those phases.

The regional population forecast is a part of the work and Mr. Reid assured members that the summary of past forecasts have held up when compared to actual growth. In preparation of Mr. Yee's presentation, who provided a summary of past growth forecasts in comparison with real growth, Mr. Reid explained that forecasting is about making assumptions. Metro is careful in how assumptions are developed and works with peer groups such as PSU. Mr. Reid let members know that the advisory panel will be providing a summary to MPAC on April 9th on preliminary forecast results.

Dennis Yee went through materials provided on past forecasts for comparison of numbers, and let MPAC members know that all data is non-confidential and this process is done very 5 years. Adjustments are made over time when new trends emerge. He invited members to think about policy questions when reviewing the results of the forecasts and realize there is always room for uncertainty in forecasting.

Mr. Reid posed questions for members to ponder while listening to Mr. Yee's presentation: What if we plan for slow growth and experience fast growth? What if we prepare for fast growth and experience slow growth? What will the housing market and infrastructure look

like? Issues of over or underinvestment will need to be considered. Mr. Yee provided handouts on 3 different forecasts and compared them to current forecasts and walked members through the numbers.

Takeaways included:

- A variety of sources were used to prepare the forecasts shared with the committee, including Metro's, Oregon Office of Economic Analysis, HIS Global Insight, the Oregon Census Bureau, Pew Research Center, the World Bank and the U.N. U.S. Population Projection data.
- Metro's Research Center included 7 counties in the Portland metropolitan area in their forecast estimates.
- Metro and HIS Global Insight estimates are similar in projecting growth, at 1%, while national forecasts remain more pessimistic in their forecast; predict 0.6-0.9% growth.
- Mr. Yee mentioned the recession and internet scare as critical moments in the context of the forecasts.
- Intel and the high tech industry contributed to the job growth in the region.
- Mr. Yee pointed to Oregon's social services as a possible contributing factor in population growth.
- Employment trends did not keep pace with population growth. Mr. Yee referred to the recession as an uncertainty that many forecasters didn't see coming in forecasting employment trends.
- Mr. Yee acknowledged that including Columbia County in the list of counties in the five-county area is a typo.
- Mr. Yee acknowledged that over time the Census Bureau and the White House changed definitions of what a metropolitan statistical area is defined as. Metro's region is an example of that as it has grown from 2 counties to 7 as a result of economic integration.

Member comments include:

- Members questioned how the forecast interacts with the Climate Smart Communities Project, and whether the new forecast will be used for that project.

Mr. Reid responded that the CSC project relies on previous forecasts, not the ones being produced at this time.

- Councilor Sam Chase mentioned that although Oregon does attract families in need due to Oregon's social service net, it's not the most evident reason to move to the region. He referred to Adam Davis's presentation and cited the quality of life and environment as the reason young people are attracted to the region.

- Members expressed concern for the way the data was presented to them, in terms of percentages versus actual numbers.

- Members expressed concerned about the accuracy of the population forecasts and if there is a disconnection in actual data gathered in the tri-county area.

Mr. Yee responded that he used different forecasts to give a picture of comparison for the committee, and utilized percentage rates to represent change. He is open to the idea of producing statistics that are useful to understand, percentage or actual numbers.

- Chair Carson acknowledged the work and the data gathered from multiple sources and appreciated the comparability in the forecasts that were presented.
- Members expressed that data demonstrates a need for more area to be included in the urban growth boundary to accommodate the forecasted needs.

10. <u>MPAC Member Communication</u>

Councilor Harrington let members know the meeting taking place on April 9th with Dr. Tom Potiowski, Portland State University Economist, was changed to April 23rd.

Lise Glancy provided an update from the Port of Portland, as to service contracts that are currently being renewed. Container service provided by the Port represents about 67% of service to Portland.

Chair Carson adjourned the meeting at 6:57pm.

Respectfully Submitted,

Jessica Rojas

Recording Secretary

ATTACHMENTS TO THE PUBLIC RECORD FOR February 12, 2014

ITEM	Document type	Doc Date	Document Description	Document No.
7	Handout	N/A	DHM Research Fact Sheet	21214m-01
7	Memo	1/28/14	House Committee on Rural Communities HB 4078 Letter	21214m-02
7	Handout	N/A	Regional Population & Employment Forecast to 1990 & 2005	21214m-03
7	Handout	N/A	2000-2030 Regional Forecast	21214m-04
7	Handout	N/A	2010-2040 Regional Forecast and Growth Distribution	21214m-05
7	Handout	N/A	Comparing Portland Metro's population forecasts	21214m-06
10	Handout	N/A	Community Planning And Development Grants Program Review Process	21214m-07
10	Handout	N/A	Joint JPACT/MPAC Meetings	21214m-08

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Metro | *Memo*

Date: Thursday, Feb. 20, 2014
To: Metro Policy Advisory Committee
From: John Williams,
Chair, MTAC
Subject: MTAC Nominations for MPAC Approval

We have received the following nominations for the following positions on the Metro Technical Advisory Committee:

1. Randy Ealy (member) and Steve Sparks (alternate) for "2nd Largest City in Washington County: Beaverton"
2. Aisha Willits (member) and Hal Bergsma (alternate) for "Service Providers: Parks"
3. Annette Mattson, PGE (member) and Shanna Brownstein, NW Natural (alternate) for "Service Providers: Private Utilities"

Please consider these nominees for MTAC membership at your February 26 meeting. Per MPAC's bylaws, MPAC may approve or reject any nomination submitted.

If you have any questions or comments, do not hesitate to contact me.

Thank you.

Oregon
John A. Kitzhaber, M.D., Governor

Department of Transportation
Transportation Planning Unit
555 13th Street NE, Suite 2
Salem, OR 97301
Phone: (503) 986-4121
Fax: (503) 986-4174

DATE: February 18, 2014

TO: Metro Policy Advisory Committee (MPAC)

FROM: Amanda Pietz, Transportation Planning Manager

SUBJECT: Statewide Transportation Strategy Short-Term Implementation Plan

Purpose:
The staff from the Oregon Department of Transportation (Department) provided MPAC with a briefing on the *Oregon Statewide Transportation Strategy: A 2050 Vision for Greenhouse Gas Emissions Reduction* on June 27, 2012. The purpose of this memo is to provide MPAC with another status update on the Statewide Transportation Strategy (STS) and the associated STS Short-Term Implementation Plan.

Action Requested:
No action is requested. The staff from the Department will provide MPAC with an informational presentation.

Background:
The Statewide Transportation Strategy (STS), developed in response to Senate Bill 1059 (2010), establishes a general course of action to reduce transportation-related greenhouse gas (GHG) emissions and help the state achieve its goal of reducing emissions to 75 percent below 1990 levels by 2050.

A policy and technical committee guided the development of the STS over the course of a two-year period. Committee members represented a wide-range of transportation stakeholders, including other state agencies, regional and local governments, the business sector, and advocacy groups. Based on extensive research and technical analyses using the best available data, the committees crafted the vision and strategies. The STS identifies the most effective GHG emissions reduction strategies in transportation systems, vehicle and fuel technologies, and urban land use patterns. For additional information on the STS, please refer to the STS Executive Summary **[Attachment 1]**.

On March 20, 2013, the Oregon Transportation Commission (OTC) accepted the STS and requested that the Department staff examine the strategies further and move forward with the development of an implementation plan. In accordance, the Department developed the STS Short-Term Implementation Plan **[Attachment 2]**. As an internal work plan, the STS Short-Term Implementation Plan identifies seven programs for the Department to pursue over the next 2-5 years.

In developing the STS Short-Term Implementation Plan, the staff reached out to a variety of internal and external stakeholders to provide information, address concerns, and discuss initiatives that align with the STS. Although the programs included in the implementation plan represent a small number of potential actions identified in the STS, they build upon the Department's existing work at relatively low costs and within existing budgets. Furthermore, these programs will help the Department achieve some early successes before considering the more ambitious strategies necessary to achieve the STS vision.

The stakeholder outreach process also helped in the development of two supporting documents: 1) the STS Summary Sheets **[Attachment 3]**, and 2) the economic considerations discussion paper **[Attachment 4]**. The summary sheets outline the intent of all 18 strategies included in the STS, identify potential opportunities and challenges to implementation, and include a sampling of other initiatives from across the state that help move the STS vision forward. In addition, the economic discussion paper considers how the programs in the implementation plan may impact the state's economy.

Next Steps:

In addition to MPAC, the Department staff will update Metro's Joint Policy Advisory Committee on Transportation, Technical Advisory Committee, and Transportation Policy Alternatives Committee. On February 20, 2014, the Department will take the STS Short-Term Implementation Plan to the OTC. After the OTC's review, the Department will commence implementation and begin tracking the statewide change in GHG emissions from the transportation sector. By tracking progress, the Department will identify when to begin exploring other STS strategies for inclusion in future implementation plans. More specifically, beyond the STS Short-Term Implementation Plan, the Department will develop a mid-term (5-20 year) implementation plan and a long-term (20-40 year) implementation plan.

Attachments:

1. STS Executive Summary
2. STS Short-Term Implementation Plan
3. STS Summary Sheets
4. Economic Considerations: STS Short-Term Implementation Plan

Oregon Statewide Transportation Strategy

A 2050 Vision for Greenhouse Gas Emissions Reduction

Executive Summary

Oregon Sustainable Transportation Initiative (OSTI)

Accepted March 20, 2013

Oregon Department of Transportation

Dedicated to the legacy of Gail Achterman's leadership for Oregon's natural resources and sustainable transportation.

For more information, contact:

Oregon Department of Transportation
Transportation Development Division
Transportation Planning Unit
555 13th Street NE, Suite 2
Salem, OR 97301-4178
Phone: (503) 986-4121
www.oregon.gov/ODOT/TD/OSTI/STS.shtml

Oregon Department of Transportation

Why was the STS developed?

The Statewide Transportation Strategy (STS) was developed in response to legislative direction. In 2010, the Oregon Legislature passed Senate Bill 1059 (Chapter 85, Oregon Laws 2010, Special Session) which requires:

> "...the Oregon Transportation Commission, after consultation with and in cooperation with metropolitan planning organizations, other state agencies, local governments and stakeholders... shall adopt a statewide transportation strategy on greenhouse gas emissions to aid in achieving the greenhouse gas emissions reduction goals set forth in ORS 468A.205 [a 75 percent reduction below 1990 levels by 2050]..."

What is the STS?

In accordance with the legislative direction, the Statewide Transportation Strategy: A 2050 Vision for Greenhouse Gas (GHG) Emissions Reduction describes what it would take for the transportation sector to get as close to the 2050 goal as is plausible. The STS, itself, is neither directive nor regulatory, but rather points to promising approaches for further consideration by policymakers at the national, state, regional, and local levels. Policymakers will need to decide if all or select strategies are to be pursued, how, and when. Many of the strategies in the STS require further analysis and consideration before the right approach can be chosen or action taken.

The STS examines all aspects of the transportation system including the movement of people and goods, and identifies transportation system, vehicle and fuel technology, and urban land use pattern strategies. Based on policy discussions and analysis, the STS 2050 Vision results in a future with 60 percent fewer GHG emissions than 1990.[1] The broad 40 year course of action charted in the STS is agile and can be adapted to an evolving future and unforeseen opportunities. Progress will be monitored over time and the course adjusted accordingly. The STS allows flexibility in what strategies and actions may be pursued and points to those projected to be effective at achieving

The STS is flexible to allow for solutions that work best for communities, businesses, and individuals. It is neither directive nor regulatory.

"We are not talking about forcing people out of their cars. This is about a clear economic opportunity – creating industry, creating jobs, reducing costs for families. Oregon's leadership will be essential."

— Ken Williamson, Oregon Environmental Quality Commission

[1] The 60 percent reduction in emissions is projected to occur from the implementation of the entire STS, meaning, to reach even this level, all of the strategies would need to be considered.

"It is a challenging undertaking, but it will complement a lot of the other work ODOT is committed to doing."

— Gail Achterman, Oregon Transportation Commission

the intent of the legislation. The STS does not assign responsibility for implementation. By mandate, the STS focus is on prevention and mitigation of climate impacts rather than adaptation.[2]

How was the STS developed?

A Policy Committee and a Technical Advisory Committee guided the development of the STS over a two year period. Committee members represented a wide range of transportation stakeholders including state, regional and local governments, other state agencies, businesses, and advocacy groups. Based on extensive research, technical analysis using the best available data, and issue papers, the committees crafted the vision, strategies and strategic priorities.[3]

To inform the process, staff and consultants used analysis tools to model the outcome of plans and trends to determine what the future would potentially look like if the state continued on the current path (business as usual). Alternative scenarios were then created that represented different configurations of technology, pricing, land use, and transportation system conditions. Indicators were used to provide information on the amount of GHG reduced as a result of a scenario, as well as to understand other potential impacts on important societal considerations like health, economic costs, air quality, and transportation system performance. Scenarios were compared to the business as usual projection to understand differences in outcomes. Those strategies included

ODOT worked with national experts and citizen leaders on developing effective GHG reduction strategies. To further inform the process, staff and consultants utilized advanced analysis tools to model various GHG emissions reduction scenarios.

www.pedbikeimages.org /Laura Sandt

[2] Separate from the STS, ODOT has engaged in adaptation planning activities which are further described on the following site: http://www.oregon.gov/ODOT/TD/CLIMATECHANGE/Pages/cc_adaptation.aspx.

[3] A two year extensive analysis process was conducted using a peer-reviewed and nationally recognized tool, GreenSTEP, and assumptions were reviewed by and agreed to by various state agencies, industry and technical experts. The advisory committees assessed the plausibility of assumptions and decided what to include in the STS and how hard things needed to be pushed. Additional details on the STS technical analysis and development process are detailed in the Oregon Statewide Transportation Strategy Volume II: Technical Appendices, which can be accessed at: http://www.oregon.gov/ODOT/TD/OSTI/docs/sts/STS_TechAppendices.pdf.

in the STS represent the mix of options with the largest GHG reductions and greatest potential positive impacts on the other goal areas.

Because there are many unknowns about the future, there will be a need to monitor and adapt the strategies as the work moves forward. However, it was also recognized that it is important that the state start exploring or working on what can be achieved; the key to this is an agile and iterative process that responds to and takes advantage of what is learned along the way.

The STS establishes a broad vision for reducing GHG emissions from transportation sources, which will help the state achieve its goal of a 75% reduction in GHG emissions from 1990 levels by 2050.

What does the STS call for?

In line with the legislative direction, the STS identifies a possible path forward for the transportation sector to aid the state in achieving its GHG emissions reduction goal. Transportation and land use strategies are included that modeling and analysis have shown to have measurable results. Those chosen for inclusion reflect the mix of options that advisory committees and researchers considered to be plausible and that had the fewest apparent negative impacts. Decision makers will need to agree on which strategies to pursue, and when, given economic considerations, resource implications, and political will. The Oregon Transportation Commission (OTC) is an important decision making body in the effort, for those strategies falling under the authority of the Oregon Department of Transportation, and their approval is required before strategies are further explored or action taken. Additionally, many other strategies will require buy off and commitment by other decision making bodies at the national, state, regional, local, and private sector levels.

Many of the strategies in the document are about providing low carbon transportation options which allow individual choice of the alternative that works best for the situation. Some strategies may be well

"The STS is a great start. What I really like about it is the flexibility. What works in Portland or what people in Portland want for their community might be different than what works in Bend or what the people of Bend want. The STS gives us a good starting point and tools to help determine what each community wants to do in their effort to reduce greenhouse gases."

— Mark Capell, Bend City Council

understood and have the support to move directly into implementation (e.g. eco-driving), while others will require further analysis to determine economic impacts (e.g. pricing) and the appropriate course of action, if any. In total, the STS contains 18 distinct strategies[4], with 133 potential elements that generally fall into the following categories:

Vehicle and Engine Technology Advancements – Strategies in this category increase the operating efficiency of multiple transportation modes through transition to more fuel-efficient vehicles, improvements in engine technologies, and other technological advances.

Fuel Technology Advancements – Strategies in this category increase the operating efficiency of fuel-powered transportation modes through transitions to fuels that produce fewer GHG emissions or have a lower lifecycle carbon intensity.

Enhanced System and Operations Performance – Strategies in this category improve the efficiency of the transportation system and operations through technology, infrastructure investment, and operations management.

The STS examines all aspects of the transportation system including the movement of people and goods, and identifies ways to reduce GHG emissions through transportation system, vehicle and fuel technology, and urban land use pattern strategies.

Transportation Options – Strategies in this category increase opportunities for travelers and shippers to use transportation modes that are more energy efficient and produce fewer emissions.

Efficient Land Use – Strategies in this category promote more efficient movement throughout the transportation system by supporting compact growth and development. This development pattern reduces travel distances and increases opportunities for using lower energy and zero- energy transportation modes.

Pricing and Funding Mechanisms – Strategies in this category support a transition to more sustainable funding sources to maintain and operate the transportation system, pay for environmental costs of climate change and provide market incentives for developing and implementing efficient ways to reduce emissions.

"We need to reach for the economic opportunities that will come from improved technologies, products associated with a low carbon economy. This will create new economic sectors."

— Rex Burkholder, Portland Metro Council

[4] For a list of all 18 strategies, please refer to page 12.

While a given strategy will fall into one of the categories above, it is often interdependent, and will achieve its greatest potential for GHG emissions reductions when implemented in conjunction with complementary strategies. For example, strategies that facilitate greater use of transportation options such as public transportation, personal electric vehicles, bicycling, and walking will be far more effective if implemented in conjunction with land use efficiency strategies such as compact, higher-density mixed-use developments that provide proximate destinations and "complete streets" that accommodate multiple modes safely and efficiently.

The STS found that substantial reductions are plausible, but actions by the transportation sector alone cannot reduce transportation emissions enough to meet Oregon's 75 percent reduction goal. Since the demands for transportation services are derived from demands from other needs and desires of people and businesses, solutions for effectively reducing transportation emissions will require cooperative efforts across sectors. This was found to be particularly the case for freight emissions. Much work will be needed to move forward and significant breakthroughs will be required in a number of disciplines. The STS notes and stresses that some of the most effective elements require state and national cooperation.

Many of the strategies in the STS are not new concepts but rather continue the direction brought forward in the Oregon Transportation Plan.[5] Additionally, the Governor's 10-Year Energy Action Plan[6] calls for many of the same strategies highlighted in the STS including: increasing the proportion of fuel efficient vehicles; continuing investment in compact, multimodal, mixed use communities; implementing intelligent transportation system (ITS) technology; and innovatively financing a cleaner transportation system.

" The STS was developed in the Oregon way: staff and citizens together crafting a strategy that is equal parts data and sensible, pragmatic choices."

— Angus Duncan, Oregon Global Warming Commission

The elements of the STS will likely have benefits beyond GHG reductions. These approaches look to: strengthen our communities by creating reliable, flexible transportation options; enhance energy independence; and create a healthier natural environment for generations of Oregonians to come.

[5] The Oregon Transportation Plan, adopted by the Oregon Transportation Commission, is the statewide policy document guiding transportation decisions and investments. For additional information, visit the Plan website at: http://www.oregon.gov/ODOT/TD/TP/pages/otp.aspx.

[6] The Governor's 10-Year Energy Action Plan can be accessed at the following website: http://www.oregon.gov/energy/pages/ten_year/ten_year_energy_plan.aspx.

"This is also about protecting Oregon businesses. Can the public sector and private sector work together to develop practical energy sources? Will we have energy options? Can we be nimble enough to avoid energy price shocks?"

— Onno Husing, Oregon Coastal Zone Management Association

How will the future be different as a result of the STS?

The STS represents an aspirational vision for a cleaner future that would greatly aid Oregon in achieving its 2050 GHG emission reduction goal, and achieve other benefits. Performance indicators were used to help understand the impacts of the STS Vision on travel and system performance, land use and natural resources, public health, and the economy, in addition to GHG emissions. Results were compared to what Oregon's future would look like if the trends and plans of today continue and nothing changed. Overall, the STS Vision shows Oregonians better off than the status quo. However, the STS will produce greater benefits for some activities and greater costs for others. Analysis showed that the STS Vision would be likely to produce the following benefits relative to today and the trends of tomorrow:

Improved public transportation service, bicycling and walking – Throughout the state, Oregonians would have better access to a range of transportation options (e.g., transit, carpool, bicycling, walking). Communities would have good walking paths, bicycle facilities, and transit service. Improvements in bicycling and walking facilities would increase physical activity and help improve public health and reduce obesity rates. These transportation options, along with carsharing services, would improve mobility while enabling many households to save money by owning fewer cars.

Big challenges call for innovative solutions. The STS points to promising approaches for further consideration by policymakers at the national, state, regional, and local levels.

Fuel-efficient / alternative energy vehicles – Great strides in technology would allow for the widespread adoption of cleaner and more efficient vehicles by Oregonians. Automobiles powered by electricity would be able to travel hundreds of miles without recharging and an extensive network of recharging stations would extend across the state. Other vehicles would run on compressed natural gas (CNG) and locally-produced biofuels that would be readily available. Most heavy-duty trucks would run on liquefied

natural gas (LNG), and commercial aircraft would run largely on biofuels. These changes would improve air quality dramatically while reducing dependency on foreign oil.

Enhanced information technology – People would be able to use technology to easily plan and update their travel routes combining modes as needed such as public transportation, bicycling, and walking in addition to personal vehicles. Improved communication systems would enable individuals and organizations to meet and collaborate virtually, while reducing the need for physical travel. In-vehicle communications technologies and collision avoidance systems in cars and trucks would greatly reduce the number and severity of crashes, resulting in saved lives, reduced damage, improved travel time reliability, and elimination of hundreds of hours of roadway delay each year. New vehicle-to-vehicle communications advancements allow cars and trucks to drive closer together and use less space on the roadway, resulting in more efficient use of existing infrastructure.

More efficient movement of goods – Fewer personal vehicles on Oregon roadways frees up capacity for the transportation of goods that support a growing economy. When possible, goods are moved by more efficient modes such as rail and water. New technologies allow freight vehicles to emit lower emissions. Urban consolidation centers allow for more efficient distribution of freight deliveries to final destinations in urban areas.

Walkable mixed-use communities – Within Oregon cities, a large share of residents live in walking distance of jobs, stores, services, entertainment, and transit stops. Because of this mix of uses in a geographically small area, commute times are shorter, limiting time spent in traffic. Residents of such communities are afforded increased opportunities to "buy local," supporting local businesses. Communities across the state are recognized for vibrancy, livability, and safety.

"Interagency collaboration is one of the highlights of the Statewide Transportation Strategy. This effort has led to greater agency coordination in helping to reduce energy costs for Oregonians."

— Diana Enright, Oregon Department of Energy

Although we can achieve substantial reductions through the STS, the transportation sector alone cannot meet the state's goal. The STS is one piece of a broader effort needed to address climate change at the local, state, and national level.

"We have a history of doing a lot of good for our community. The STS now gives us additional reasons and tools to do more good things on a larger scale."

— Ali Bonakdar, Corvallis Area Metropolitan Planning Organization

While there are benefits of the STS Vision, there are also costs. For example, building infrastructure and providing services necessary to make multimodal travel options available would be costly. The total magnitude and effect of the various costs on Oregon's economy could not be predicted because of the uncertainty of economic changes across the nation and world and technological and social changes that occur. These things are very uncertain. For example, who 40 years ago would have predicted the impact of the internet and cell phones today? Because of this uncertainty, the pathway forward to implement the STS will include continued monitoring and evaluation of trends that affect the validity of the vision and its implementation. In addition, as implementation of STS strategies moves forward, the potential economic effects of candidate implementation measures will be analyzed to determine the likely effects during the implementation timeframe and to develop programs that minimize adverse effects.

How does the STS move forward?

Through acceptance, the OTC agrees with the findings of the advisory committees, that the general course of action presented in the STS for reducing transportation related emissions is in line with fulfilling the legislative requirements and that the strategies should be further considered. Before any one strategy or group of strategies move forward, however, further buy-in may be required from appropriate decision making groups, including not only the OTC but other public and private sector bodies as well.

By accepting the STS, the OTC agreed that the strategies in the STS have demonstrated value and should be "on the table" as we move forward to the next step of determining what to implement, how, and when.

Some strategies are well understood and are likely to have a high-degree of political acceptance, which can then be acted on quickly. Other strategies, however, will require additional exploration to better understand economic and societal impacts, and if, when, or how it should be pursued. A work plan will be developed detailing potential next steps. Required throughout the decision making process are inclusive and collaborative efforts at the federal, state, and local levels, as well as with businesses and individuals.

Oregon is already pursuing some of the strategies in the STS but the STS identifies ways to augment and build on the good work already being done and planned, and provides additional and new approaches to consider. Current local and regional plans provide a strong foundation for achieving GHG emissions reductions. Additionally, cities and counties in Oregon are already implementing many of the elements to achieve other economic, social or environmental goals. Lastly, industries and companies are making business-driven decisions that have an added co-benefit of emissions reduction. The work that has been done and ongoing efforts provide a foundation to build on as Oregonians move forward to further reduce transportation related GHG emissions.

In developing the STS implementation plan and undertaking actions to realize the STS Vision, the following strategic priorities should be the first considered by decision makers to assess what to pursue, how, and when:

The key to achieving the STS Vision is an iterative and collaborative implementation process that ensures ongoing coordination between local, regional, state, and federal governments, as well as the private sector.

Funding – Successful implementation of the STS relies on adequate funding to maintain and improve system performance, provide transportation options, and enhance operations. Projections show gas tax revenues falling short of the money needed to maintain and operate the current transportation system, let alone fund new infrastructure. The lack of sustainable and adequate funding is an issue across all states and current local and national efforts can be built on to find appropriate mechanisms. In addition to a sustainable funding source, the STS points to charging users the true cost of travel including transportation systems costs and social costs. The costs, benefits, and impacts of true cost pricing will need to be assessed.

Efficient Vehicles and Clean Fuels – State and national programs and incentives that encourage the use of more efficient vehicles and cleaner fuels are important mechanisms for lowering emissions and should be investigated and supported. Technological advancements that result in more efficient designs of vehicles and ability to use less carbon intensive fuels or alternative propellants, such as electricity, help to achieve the STS Vision. Infrastructure that supports such advancements, like electric vehicle charging stations, should be explored.

"Towns of all sizes can reap the benefits of many of these strategies."

— Chris Hagerbaumer, Oregon Environmental Council

Low Carbon Transportation Options – The least carbon intensive mode of transportation is not always desirable or practical. However, when it is feasible to take a trip by transit, walking or biking, or to ship freight by barge or rail, it is important to have viable options available. Work can be done to identify potential barriers and opportunities to those modes.

Land Use – The configuration of land uses to transportation systems can support reduced trips and fewer miles driven. Careful siting of industrial lands and provision of mixed use areas can make for more efficient land uses and livable communities. Potential for sites can be assessed at the regional and local level and state policies investigated.

Each of these priorities is supported in the short term by the Governor's 10-Year Energy Action Plan, which sets out actions for the next decade. Additionally, other ongoing work will help advance the strategic priorities, including: efforts by the Road User Fee and Non-Roadway Funding Task Forces, and the Oregon Legislature to secure sustainable transportation funding; work by the Departments of Energy and Environmental Quality on standards and incentives for efficient vehicles and clean fuels; and through the Department of Land Conservation and Development (DLCD) management of land uses. Upcoming work on modal plans, such as the Rail Plan, Bicycle and Pedestrian Plan, and eventually the Public Transportation Plan, will look to support the STS through provision of transportation options.

As the Agency and others move forward there will be additional opportunities to incorporate the STS into existing work, such as eco-driving messages into driver education curriculum and public outreach messages, and to consider STS concepts as the future is planned, such as supporting infrastructure technology to allow vehicle to infrastructure communications. To fully aid in achieving the STS Vision, the full array of the strategies, not just the strategic priorities or the other strategies mentioned here, will have to be explored further in order to provide a diversity of choice for the Legislature and other policymakers.

As some of the strategies may be controversial, especially in the short-term, a key to success of the STS will be public acceptance and support that results from participation in implementation planning.

Transportation related GHG emissions reduction will require strong partnerships and close collaboration between jurisdictions at the local, regional, state and national levels, as well as with businesses and individuals.

How does the STS affect transportation and land use planning?

At this stage, the STS contains no specific policies or goals and was not developed to be a policy document like the Oregon Transportation Plan (OTP). The OTP is the umbrella policy plan that fulfills the statutory planning requirement for the OTC. As strategies in the STS are further considered, the timing and breadth of any needed update or amendment of the OTP and related modal (e.g. Rail) or topic (e.g. Freight) plans will be assessed. The STS furthers and supports the OTP and its goal to provide a safe, efficient and sustainable transportation system that enhances Oregon's quality of life and economic vitality. Many of the strategies in the STS align with the broad policies and strategies in the OTP, particularly Goal 4: Sustainability. The OTP Goal 4 includes strategies that support creation of an environmentally responsible transportation system (including development and use of technologies that reduce GHG), a more diversified and cleaner energy supply, and compact and mixed use development.

Integrating the STS into regional and local planning processes is important to the successful implementation of the STS. For those areas required (Portland Metro and Central Lane) or choosing to undertake scenario planning for GHG emission reduction, the STS provides information on potential actions that can be undertaken to aid metropolitan areas in meeting their GHG emission reduction targets set by the DLCD. Additionally, the STS will point to efforts that may be engaged in at the state or national level that help the metropolitan areas meet their targets.

"This strategy is the critical next step forward in Oregon's emissions reduction efforts that began ten years ago. It is precisely the detailed, evidence-and-analysis based focus on transportation emissions that we called for in the Global Warming Commission's Roadmap to 2020, and that I expect we will incorporate into the next iteration of that Roadmap."

— Angus Duncan, Oregon Global Warming Commission

STS Strategies

Vehicle and Engine Technology Advancements

Strategy 1 – More Efficient, Lower-Emission Vehicles and Engines

Transition to lower emission and fuel-efficient vehicles, enhanced engine technologies, and efficient vehicle designs.

Fuel Technology Advancements

Strategy 2 – Cleaner Fuels

Support the development and use of cleaner fuels, including reduction of the carbon intensity of fuels.

Systems and Operations Performance

Strategy 3 – Operations and Technology

Enhance fuel efficiency and system investments, and reduce emissions by fully optimizing the transportation system through operations and technology.

Strategy 4 – Airport Terminal Access

Increase efficiency in all airport terminal access activities, including shifting to low- and zero-emission vehicles and modes for passengers, employees and vendors.

Strategy 5 – Parking Management

Promote better management and use of parking in urban areas to support compact, mixed-use development and use of other modes, including transit, walking and bicycling.

Strategy 6 – Road System Growth

Design road expansions to be consistent with the objectives for reducing future GHG emissions by light duty vehicles.

Transportation Options

Strategy 7 – Transportation Demand Management

Support and implement technologies and programs that manage demand and make it easier for people to choose transportation options.

Strategy 8 – Intercity Passenger Growth and Improvements

Promote investment in intercity passenger public transportation infrastructure and operations to provide more transportation options that are performance and cost competitive.

Strategy 9 – Intracity Transit Growth and Improvements

Investing in public transportation infrastructure and operations to provide more transportation options and help reduce single-occupancy vehicle travel.

Strategy 10 – Bicycle and Pedestrian Network Growth

Encourage local trips, totaling twenty miles or less round-trip, to shift from single-occupant vehicle (SOV) to bicycling, walking, or other zero-emission modes.

Strategy 11 – Carsharing

Enhance the availability of carsharing (short-term self-service vehicle rental and/or peer-to-peer) programs to reduce the need for households to own multiple vehicles and to reduce household vehicle miles traveled.

Strategy 12 – More Efficient Freight Modes

For the commodities and goods where low-carbon modes are a viable option, encourage a greater proportion of goods to be shipped by rail, water, and pipeline modes.

Efficient Land Use

Strategy 13 – Compact, Mixed-Use Development

Promote compact, mixed-use development to reduce travel distances, facilitate use of zero- or low-energy modes (e.g., bicycling and walking) and transit, and enhance transportation options.

Strategy 14 – Urban Growth Boundaries

Create full-service healthy urban areas to accommodate most expected population growth within existing Urban Growth Boundaries (UGB) through infill and redevelopment.

Strategy 15 – More Efficient Industrial Land Uses

Encourage and incentivize more efficient use of industrial land through closer proximity of shippers and receivers, consolidated distribution centers, and better access to low-carbon freight modes.

Pricing, Funding and Markets

Strategy 16 – Funding Sources

Move to a more sustainable funding source that covers the revenue needed to maintain and operate the transportation system and accounts for the true cost of travel.

Strategy 17 – Pay-As-You-Drive Insurance

Promote Pay-As-You-Drive Insurance (PAYD) programs that allow drivers to pay per-mile premiums, encouraging less driving through insurance savings.

Strategy 18 – Encourage a Continued Diversification of Oregon's Economy

Maintain economic prosperity through an increase in the value per ton (the "value-density") of goods produced in the state, which is projected to reduce shipping costs and GHG emissions for any given level of economic output.

A special thank you to the following committee members for their contributions during the development of the STS. We also wish to thank the citizens of Oregon, including policy board members and their staff who provided valuable comments and assistance on the STS.[7]

STS Policy Committee Members

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Gail Achterman *Oregon Transportation Commission*
Jerri Bohard *Oregon Department of Transportation*
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Bob Russell *Oregon Trucking Associations*
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[7] The affiliations listed here represent those held at the time of STS development.

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Oregon Statewide Transportation Strategy

www.oregon.gov/ODOT/TD/OSTI/STS.shtml

Oregon Department of Transportation

Statewide Transportation Strategy
Short-Term Implementation Plan

February 2014

Oregon Department of Transportation

Produced by:

Oregon Department of Transportation

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IMPLEMENTING THE STS

A number of actions have been identified from the suite of elements in the Statewide Transportation Strategy (STS)[1] that help to move Oregon closer to a cleaner and more sustainable future, and support the Governor's 10-Year Energy Plan. The Oregon Department of Transportation (ODOT) will pursue these actions in the short-term (next 2-5 years).

This ODOT work plan includes seven programs, and multiple corresponding actions, that enhance existing initiatives, incorporate consideration of the STS into ODOT business, and push technological advancements in ways designed to provide multiple benefits to Oregonians. The programs and actions identified in this plan only represent a sampling of STS elements, and are focused on ones that are relatively low cost, complement existing and supported programs, and are likely to produce fairly rapid greenhouse gas (GHG) reductions and other benefits. Subsequent implementation plans will continue to explore and identify the best actions for working towards the STS vision in the mid- and long-term. More specifically, in addition to this Short-Term Implementation Plan, ODOT anticipates the development of a mid-term implementation plan (5-20 years) and a long-term implementation plan (20-40 years).

Supporting documents to this Short-Term Implementation Plan include: 1) an economic discussion paper that considers how the programs in this implementation plan may impact the state's economy; and 2) summary sheets that outline the intent of all 18 strategies included in the STS, identify potential opportunities and challenges to implementation, and list other initiatives that help move the STS vision forward.

For more information, or to download these supporting documents, please visit: http://www.oregon.gov/ODOT/TD/OSTI/Pages/sts_implementation.aspx.

Background on the STS

In 2010, the Oregon Legislature passed Senate Bill 1059 (Chapter 85, Oregon Laws 2010, Special Session) which requires:

"…the Oregon Transportation Commission, after consultation with and in cooperation with metropolitan planning organizations, other state agencies, local governments and stakeholders…shall adopt a statewide transportation strategy on greenhouse gas emissions to aid in achieving the greenhouse gas emissions reduction goals set forth in ORS 468A.205 [a 75 percent reduction below 1990 levels by 2050]…"

Over the course of a two year period, the ODOT staff conducted extensive research and analysis, and obtained policy and technical input from local governments, industry representatives, metropolitan planning organizations, state agencies, and other stakeholders to inform the development of the STS.

The resulting document, *Oregon Statewide Transportation Strategy: A 2050 Vision for Greenhouse Gas Emissions Reduction*, examines all aspects of the transportation system, outlines a broad vision, and identifies various strategies effective in reducing GHG emissions from the transportation sector. Beyond reducing GHG emissions, the strategies in the STS also appear to lead to other benefits, including improved health, cleaner air, and a more efficient transportation system. These strategies will serve as the

[1] The *Oregon Statewide Transportation Strategy: A 2050 Vision for Greenhouse Gas Emissions Reduction (STS)* includes 18 strategies effective in reducing GHG emissions and achieving other desirable outcomes and 133 more specific elements that represent potential actions that would help achieve the strategy.

best tools available to help meet the state's GHG reduction goals while supporting other societal goals such as livable communities, economic vitality, and public health.

On March 20, 2013, the Oregon Transportation Commission (OTC) accepted the STS. Through its acceptance, the OTC agreed that the strategies in the STS have demonstrated value and requested that ODOT further consider these strategies through the development of this STS Short-Term Implementation Plan.

For more information or to download the accepted STS, please visit: http://www.oregon.gov/ODOT/TD/OSTI/pages/sts.aspx

PLAN OF ACTION

Purpose

The STS Short-Term Implementation Plan identifies actions for ODOT to pursue in the next 2 to 5 years to help move the STS forward. This plan will in turn help Oregon to achieve its goal of a 75 percent reduction in GHG emissions from 1990 levels by 2050.

ODOT's Responsibility

This plan identifies new, enhanced, or reprioritized efforts that ODOT sees as important to its mission and to moving in the direction of the STS vision. While the impetus for these action items varies (e.g. improving safety, encouraging transit, increasing fuel efficiency), all of these programs align with the STS. By highlighting priorities, this plan will help to inform work programs throughout ODOT. In addition, it functions as a mechanism by which ODOT can increase internal and external coordination on initiatives that help to reduce GHG emissions from the transportation sector.

Since some of the strategies outlined in the STS fall outside of ODOT's purview, full implementation of the STS vision requires action by other state agencies, local jurisdictions, the private sector, and others. The actions included in this Short-Term Implementation Plan represent only a selection of STS strategies, and separate implementation plans will be needed that identify any actions to be pursued in the mid- and long-term.

ODOT Implementation Programs

This plan recommends the following seven programs for implementation:

1. *Electric Vehicles and Low Emission Fuels*
2. *Eco-Driving*
3. *Road User Charge Economic Analysis*
4. *Scenario Planning and Strategic Assessments*
5. *Intelligent Transportation Systems (ITS)*
6. *Transportation Planning and Project Selection*
7. *Stakeholder Coordination*

To better understand some of the economic costs and benefits of these programs, ODOT evaluated the potential impacts of these programs on the state's economy in the supporting document entitled *Economic Considerations: Statewide Transportation Strategy Short-Term Implementation Plan*. The level of detail included in this plan allowed for a qualitative assessment of some potential economic considerations. Since many of these programs represent extensions of ongoing ODOT work, the economic evaluation demonstrates that the programs included in this plan are not likely to cause significant economic costs. One potential economic cost to mention, however, is the potential impact on transportation funding. As some of these programs, most notably Programs #1 and #2, reduce fuel consumption, transportation funding may also be reduced unless the state pursues an alternative funding strategy, such as the road user charge.

The tables that follow provide more detail on the seven programs. Specifically, these tables outline the actions necessary to implement the program, the ODOT division lead and partners, as well as the motivation and policy support for the program.

Program #1: Electric Vehicles and Low Emission Fuels

Actions:	Electric Vehicles: • Develop communication materials that highlight the benefits of alternative fuel vehicles, including electric vehicles (EVs), and create maps and other resources that identify the state's existing EV charging network. • Expand communication efforts that promote EV tourism activities in Oregon. • Through the Transportation and Growth Management Program, collaborate with the Oregon Department of Land Conservation and Development (DLCD) and explore ways to incorporate EV charging stations, natural gas, biogas, and other alternative fueling facilities, as primary and/or accessory land uses, in model code modules. • Explore funding opportunities for implementing a pilot program focused on wireless EV charging stations. • Partner with the members of the Energize Oregon Coalition and pursue funding for innovative projects, such as studying the feasibility of implementing smart grid initiatives, which allow for the two-way communication between providers and consumers of electricity. • Continue to participate in the West Coast Green Highway Initiative. Low Emission Fuels: • Administer $4,000,000 in federal Congestion Mitigation Air Quality funds, approved by the Oregon Transportation Commission in September 2013, to encourage the use of natural gas as a transportation fuel by supporting the installation of natural gas fueling stations. • Provide data, technical information, and assistance, as appropriate to the Oregon Department of Energy (ODOE) to study the feasibility of incentivizing the purchase of cleaner, more fuel-efficient vehicles, such as electric, CNG, propane, and hybrid vehicles. • Participate and provide expertise to the Oregon Department of Environmental Quality's (DEQ) efforts to promote Clean Fuels as a member of the Interagency Low Carbon Fuel Committee. • Provide technical assistance, as appropriate to the Legislative Revenue Office in the preparation of reports on the feasibility of a statewide fee or tax on GHG emissions, required per SB 306 (2013).
Relationship to Ongoing ODOT Efforts:	This action item will build upon Oregon's ongoing work around EVs and other low-emission fuels. Of particular importance are the recommendations highlighted in the *Energizing Oregon* document: http://evroadmap.us/sites/default/files/Final_Energizing_Report.pdf
ODOT Lead:	Office of Innovative Partnerships Transportation Development Division
ODOT Partners:	Oregon Department of Environmental Quality, Oregon Department of Energy, Oregon Department of Land Conservation and Development, Oregon Public Utilities Commission, Travel Oregon, Business Oregon, Governor's Office, Drive Oregon, Oregon Department of Consumer and Business Services, Legislative Revenue Office
Motivation for	In 2010, Governor Kulongoski's Alternative Fuel Working Group made recommendations

Program:	to the state for developing the infrastructure necessary to support alternative fuels. Subsequently, several statutory changes were made to support electric vehicles. Oregon joined other states in adopting a Low Emission Vehicle Program. In addition, through other legislative efforts and the availability of federal funding, ODOT's involvement has established EVs as a more viable transportation mode and allowed other alternative fuels, such as biodiesel, to become a more viable transportation fuel. This program is aimed at: • Addressing increased market demand for alternative fuel vehicles and low emission fuels, • Reducing consumption of gasoline and enhancing energy diversity, • Reducing criteria air pollutants, and • Creating job and economic growth.
Policy Support:	Governor's 10-Year Energy Action Plan Energizing Oregon, Business Oregon State Zero-Emission Vehicle Programs Memorandum of Understanding Memorandum of Understanding between the State of Oregon Office of the Governor, State of Oregon Department of Transportation, and Drive Oregon Oregon Clean Fuels Program, DEQ Oregon Transportation Plan, ODOT • Goal 4 – Sustainability • Goal 7 – Coordination, Communication and Cooperation Statewide Transportation Strategy, ODOT • Strategy 1 – More Efficient, Lower-Emission Vehicles and Engines • Strategy 2 – Cleaner Fuels
Level of Effort:	Low to Moderate. Communication activities and technical support (i.e. modeling, data collection, and gas tax expertise) supplement existing programs at a relatively low cost. Limited coordination hours are expected with DEQ, DLCD and ODOE on the actions listed above.

Program #2: Eco-Driving

Actions:	• Launch deployment of ODOT eco-driving educational efforts, leveraging partnerships and funding where possible. • Explore the development of an eco-driving certification program for transit operators, commercial fleets, and freight carriers. • Identify opportunities for strategic partnerships and for working with the private sector to promote technologies that support eco-driving, such as in-car displays regarding fuel efficiency.
Relationship to Ongoing ODOT Efforts:	As part of the Oregon Sustainable Transportation Initiative (OSTI) legislative requirements to outreach to the public about the costs and benefits of reducing GHG emissions, ODOT developed and tested educational materials, including tip cards, posters, and how-to videos that highlight the benefits of eco-driving. A research study with Portland State University measured the effectiveness of these educational efforts, and provided recommendations for maximized deployment, which will be used to shape the proposed actions above.
ODOT Lead:	Transportation Development Division Rail and Public Transit Division
ODOT Partners:	Oregon Department of Environmental Quality, Oregon Department of Energy, Clean Cities Program, Portland State University, Oregon Transportation Research and Education Consortium, and various private sector partners
Motivation for Program:	In 2010, the legislature directed ODOT through the passage of SB 1059 to educate the public about the need to reduce GHG emissions. Through educational efforts related to eco-driving, this program is aimed at: • Advancing a low cost approach to reducing GHG emissions, • Providing cost savings to drivers, and • Increasing roadway safety.
Policy Support:	Oregon Transportation Plan, ODOT • Goal 4 – Sustainability • Goal 7 – Coordination, Communication and Cooperation Statewide Transportation Strategy, ODOT • Strategy 3 – Operations and Technology
Level of Effort:	Low. Outreach materials have been developed and partnerships formed where printing costs can be shared or be fully funded by the partners. Limited staff time is anticipated to coordinate with partners, seek out and arrange certification training courses, and coordinate other activities related to eco-driving as described above.

Program #3: Road User Charge Economic Analysis

Action:	• Analyze the benefits and costs of a road user charge (or vehicle miles traveled fee). This analysis may consider implementation costs, as well as social costs, such as air pollution and greenhouse gas emissions. The analysis may include recommendations on rate structures and associated benefits and costs.
Relationship to Ongoing ODOT Efforts:	With the passage of SB 810 (2013), ODOT is currently implementing a voluntary road user charge program that allows drivers to voluntarily pay a 1.5-cent per mile fee. This economic analysis will inform any future changes or modifications to ODOT's ongoing work around the road user charge.
ODOT Lead:	Office of Innovative Partnerships
ODOT Partners:	Oregon Department of Energy
Motivation for Program:	In 2001, the legislature created the Road User Fee Task Force to explore alternative approaches to financing the transportation system beyond the gas tax. These efforts came out of an early recognition of declining revenues, due in part to increases in fuel efficiency and decreases in vehicles miles traveled. In 2013, the legislature passed SB 810, which authorizes ODOT to initiate a program to charge a fee of 1.5-cents per mile and issue a gas tax refund to up to 5,000 volunteer motorists. This project will begin July 1, 2015. By analyzing the economic impacts of a road user charge, this program helps to support ODOT's ongoing commitment to developing a sustainable approach to financing the transportation system.
Policy Support:	Governor's 10-Year Energy Action Plan Energizing Oregon, Business Oregon Oregon Transportation Plan, ODOT • Goal 6 – Funding the Transportation System Statewide Transportation Strategy, ODOT • Strategy 16 – Funding Sources
Level of Effort:	Moderate. ODOT will need to hire an economist from a consulting firm or university to conduct the economic analysis. A mostly dedicated staff person will manage the consultant/researcher over several months and coordinate stakeholder engagement and review of associated materials.

Program #4: Strategic Assessments and Scenario Planning

Actions:	• Work with metropolitan planning organizations (MPOs) and associated jurisdictions on Strategic Assessments and scenario planning efforts, providing technical assistance and negotiating financial support. o Strategic Assessments are designed to assess the potential outcomes of a metropolitan area assuming current trends continue and adopted plans are implemented. Strategic Assessments also allow metropolitan areas to identify potential actions and policies to incorporate into planning documents to help the metropolitan area reach identified community goals. • Through the Oregon Modeling Steering Committee, collaborate on appropriate tools to support GHG reduction planning and other planning efforts.
Relationship to Ongoing ODOT Efforts:	Strategic Assessments are an outgrowth of scenario planning efforts for GHG reduction identified in the Jobs and Transportation Act of 2009 and SB 1059 (2010). The legislative intent is for MPO areas to engage in scenario planning. ODOT and the Department of Land Conservation and Development (DLCD) recognized scenario planning as a promising strategic planning process and worked to consider a broader range of planning goals in addition to GHG emission reduction, so as to make the effort more useful and attractive to MPOs and associated jurisdictions. Strategic Assessments are voluntary and allow MPOs to examine current plans and trends and understand what may occur in an area if changes are not made. It is the first step in a scenario planning process. The Governor's Office has worked with ODOT, DLCD, and the MPOs on the importance of scenario planning in reducing GHG emissions, and it is an action in the Governor's 10-Year Energy Action Plan. In addition, ODOT and DLCD developed Scenario Planning Guidelines as directed by SB 1059 (2010), to support such efforts.
ODOT Lead:	Transportation Development Division
ODOT Partners:	Department of Land Conservation and Development, Governor's Office, metropolitan planning organizations, local jurisdictions, and other stakeholders
Motivation for Program:	This program helps to implement the requirements of HB 2001, passed by the legislature in 2009. HB 2001 directs ODOT and DLCD to provide technical and financial support to select metropolitan areas engaged in scenario planning. In addition to helping the state achieve its GHG emission target, this program is aimed at: • Ensuring an integrated land use and transportation planning process, • Supporting other voluntary efforts that help to advance the STS vision, and • Helping MPOs identify the investments and programs to best meet community goals.
Policy Support:	U.S. Department of Transportation's Moving Ahead for Progress in the 21st Century (MAP-21) Governor's 10-Year Energy Action Plan Oregon Transportation Plan, ODOT • Goal 4 – Sustainability • Goal 7 – Coordination, Communication and Cooperation Statewide Transportation Strategy, ODOT • Strategy 6 – Road System Growth • Strategy 8 – Intercity Passenger Growth and Improvements • Strategy 9 – Intracity Transit Growth and Improvements

	• Strategy 10 – Bicycle and Pedestrian Network Growth • Strategy 12 – More Efficient Freight Modes • Strategy 13 – Compact, Mixed-Use Development • Strategy 15 – More Efficient Industrial Land Uses
Level of Effort:	Moderate to High. Although the level of technical expertise of each MPO varies, the amount of support needed from ODOT for individual assessments is generally low. If all four MPOs (Corvallis, Bend, Salem-Keizer, and Rogue Valley) simultaneously request to engage in this process, the level of effort increases. ODOT evaluates requests for funding on a case-by-case basis and must consider available resources at the time of the request and will negotiate funding levels with each MPO. Funds support MPO data gathering and reporting. ODOT commits technical staff resources (as available) to run the analysis and produce results (approximately one-quarter of one position for a six month period for each Strategic Assessment). DLCD helps with data collection and reporting from their budget. If an area is interested in full-scale scenario planning ODOT will evaluate the amount of support available and negotiate accordingly. The level of effort for ODOT would be high with any full-scale scenario planning project, including significant staff and financial resources.

Program #5: Intelligent Transportation Systems (ITS)

Actions:	Variable Speed Limits: • Plan for the expansion of variable speed projects across the state by identifying opportunities, assessing feasibility, and determining priorities. • Develop communication materials that educate drivers on the benefits of variable speed limits. Adaptive Signal Control: • Plan for the expansion of adaptive signal control technologies by identifying opportunities, assessing feasibility, and determining priorities across the state. Traveler Information: • Develop a TripCheck smart phone application to provide improved access to traveler information when traveling. Strategic Highway Research Program 2 (SHRP2) Project: • Work with the Governor's Office, Oregon Solutions, and Traffic Incident Management stakeholder groups to strengthen interagency coordination related to highway incident management. Traffic Incident Management: • Work with the Oregon State Police to expand the Oregon Interoperability Server, which allows for the electronic exchange of data among the ODOT, Oregon State Police, and 911 dispatch systems. • Improve awareness of Oregon's "move it" law which requires drivers of vehicles involved in a crash to remove their vehicle from the travel lane if it is operable.
Relationship to Ongoing ODOT Efforts:	This program supports ODOT's numerous, ongoing ITS initiatives, which utilize technology and software to improve system operations and management. Developed to improve mobility and safety, these efforts also help to reduce GHG emissions.
ODOT Lead:	Highway Division, Office of Maintenance and Operations
ODOT Partners:	Governor's Office, Department of Energy, Oregon Solutions, local jurisdictions, metropolitan planning organizations, law enforcement agencies
Motivation for Program:	Although not the original impetus for investing in ITS, these actions have the added benefit of reducing GHG emissions and protecting the environment. ODOT initiated it's ITS program to help improve system operations and management. More specifically, ITS projects are aimed at: • Improving safety, • Increasing the efficiency of the transportation system, and • Providing real-time information to travelers to allow traveler choice and increase mobility (Federal Real-Time System Management Information Program, 23 CFR Part 511).
Policy Support:	U.S. Department of Transportation's Moving Ahead for Progress in the 21st Century (MAP-21) Federal Highway Administration's (Every Day Counts Initiative) Governor's 10-Year Energy Action Plan Oregon Transportation Plan, ODOT • Goal 2 – Management of the System

	• Goal 5 – Safety and Security Oregon Highway Plan, ODOT • Goal 2 – System Management, Policy 2E: Intelligent Transportation Systems Traffic Incident Management Strategic Plan, ODOT Oregon Statewide ITS Architecture and Operational Concept Plan, ODOT Statewide Transportation Strategy, ODOT • Strategy 3 – Operations and Technology
Level of Effort:	Low to Moderate. Actions focus on investigating the potential for and planning for deployment of ITS technologies, not the infrastructure investments themselves. Additionally, communication activities supplement existing programs and are relatively low cost. Minimal staff time is expected for coordination work.

Program #6: Transportation Planning and Project Selection

Actions:	• Evaluate the STS strategies and elements for inclusion, as appropriate, into all relevant planning documents to help achieve the STS trajectories. Applicable planning documents may include statewide plans, plan updates, guidance documents, and policy documents such as, but not limited to: o Statewide Bicycle and Pedestrian Plan Update o Statewide Transportation Options Plan, including the subsequent development of a Transportation Options Program o Statewide Rail Plan Update o Statewide Public Transportation Plan Update o Transportation System Plan Guidelines • Amend the Oregon Transportation Plan (OTP) to consider the STS. The amendment is likely to be minor, focused to the introductory language of Goal 4: Sustainability. • Consider the STS in the development of the 2017-2020 Statewide Transportation Improvement Program (STIP) through collaboration with the STIP Stakeholder Committee.
Relationship to Ongoing ODOT Efforts:	ODOT is continually updating plans and guidance documents, as needed. Recent legislation has resulted in policy changes for access management and mobility, forcing many planning documents to be programmed for update. Additionally, with the Intermodal Oregon effort, ODOT Planning has committed to a massive update of modal and topic plans. These plans, as well as Mosaic, will help to support better transportation funding decisions in the state and help to articulate the future transportation system that ODOT envisions.
ODOT Lead:	Transportation Development Division Rail and Public Transit Division
ODOT Partners:	Other state agencies, local jurisdictions, metropolitan planning organizations, transit agencies, and other public and private sector stakeholders
Motivation for Program:	Incorporating the STS vision into everyday planning practices helps to ensure STS implementation. Although the STS is not a regulatory document, the STS serves to influence the direction of statewide policy documents, such as mode and topic plans, as well as guidance documents.
Policy Support:	Oregon Transportation Plan, ODOT • Goal 1 – Mobility and Accessibility • Goal 2 – Management of the System • Goal 3 – Economic Vitality • Goal 4 – Sustainability • Goal 7 – Coordination, Communication and Cooperation Oregon Highway Plan, ODOT • Goal 4 – Travel Alternatives, Policy 4B: Alternate Passenger Modes and Policy 4D: Transportation Demand Management Statewide Transportation Strategy, ODOT • Strategy 6 – Road System Growth

	• Strategy 7 – Transportation Demand Management • Strategy 8 – Intercity Passenger Growth and Improvements • Strategy 9 – Intracity Transit Growth and Improvements • Strategy 10 – Bicycle and Pedestrian Network Growth • Strategy 12 – More Efficient Freight Modes • Strategy 13 – Compact, Mixed-Use Development
Level of Effort:	Low. Planning staff are initiating and updating these documents for reasons beyond the STS and thus the costs for such efforts are already programmed. Minimal staff time is expected for considering the STS lens within each document.

Program #7: Stakeholder Coordination

Actions:	• Monitor and provide information on initiatives that align with the STS and ensure external and internal coordination to ensure efficiencies, remove redundancies, and identify leveraging opportunities, as appropriate. The following initiatives represent a sample of ongoing efforts that require ongoing coordination: o Road User Charge Voluntary Program o Oregon Clean Fuels Program o Zero Emission Vehicles Program o Governor's 10-Year Energy Action Plan o Oregon Passenger Rail Project o Sustainable Aviation Fuels Northwest (SAFN) o Metropolitan Planning Organization Scenario Planning o Legislative efforts related to funding for transportation o Renewable Energy Action Plan (REAP)
Relationship to Ongoing ODOT Efforts:	There are many ongoing ODOT initiatives, such as electric vehicles and a road user charge that help to advance the STS. Furthermore, some of the strategies outlined in the STS fall outside of ODOT's purview. Therefore, it is important to not only keep apprised of internal efforts that align with the STS, but also efforts being pursued and implemented by the federal government, other state agencies, local jurisdictions, and the private sector.
ODOT Lead:	Transportation Development Division
ODOT Partners:	Oregon Department of Energy, Oregon Department of Environmental Quality, Oregon Department of Aviation, Oregon Department of Land Conservation and Development, Governor's Office, metropolitan planning organizations
Motivation for Program:	Ongoing coordination with internal and external stakeholders is key to the success of the STS. Specifically, coordination helps to support other voluntary efforts that help to advance the STS vision. It also creates efficiencies and helps to reduce duplication of efforts.
Policy Support:	Oregon Transportation Plan, ODOT • Goal 7 – Coordination, Communication and Cooperation Statewide Transportation Strategy, ODOT
Level of Effort:	Low. Minimal staff time is expected for ongoing communication and collaboration.

TRACKING PROGRESS

Purpose

Since the STS vision goes out to the year 2050, it is important to ensure an iterative and fluid implementation process that allows for flexibility and modifications. By tracking progress, ODOT will identify when to begin exploring other STS strategies and when to move forward with the development of mid-term and long-term implementation plans. More specifically, any of the strategies or elements identified in the STS may be incorporated into future implementation plans.

ODOT's Responsibility

Monitor

ODOT will monitor the statewide change in GHG emissions from the transportation sector, as well as the effectiveness of the seven programs included in this implementation plan.

Cumulative Change in State GHG Emissions: Utilizing the GreenSTEP[2] modeling tool and other data and analysis, ODOT will evaluate the state's progress toward reaching the STS identified target of a 60 percent reduction in GHG emissions from the transportation sector from 1990 levels by 2050. In addition to measuring the change in GHG emissions, ODOT will track potential co-benefits (e.g. air quality, health) of any emissions reductions.

Individual Effectiveness of Program: ODOT will track the effectiveness of the programs included in this implementation plan.

Report

To formalize the ongoing implementation and monitoring process, ODOT will outline its progress through the preparation of a biennial progress report. This report will provide an update on the status of implementation programs and any actions taken, as well as emissions tracking. In addition, as ODOT moves forward with implementation, additional programs may be identified for implementation. Any proposed new programs will also be included in the progress report.

ODOT will complete the first biennial progress report within four years from the date of this Short-Term Implementation Plan.

2 GreenSTEP is an acronym for Greenhouse gas Strategic Transportation Energy Planning.

Oregon Department of Transportation

Statewide Transportation Strategy: Summary Sheets

FEBRUARY 2014

Oregon Department of Transportation

Table of Contents

Overview

The *Oregon Statewide Transportation Strategy: A 2050 Vision for Greenhouse Gas Emissions Reduction* includes the following 18 strategies to help reduce greenhouse gas (GHG) emissions from the transportation sector:

1 – More Efficient, Lower-Emission Vehicles & Engines

2 – Cleaner Fuels

3 – Operations and Technology

4 – Airport Terminal Access

5 – Parking Management

6 – Road System Growth

7 – Transportation Demand Management

8 – Intercity Transit Growth and Improvements

9 – Intracity (Urban) Transit Growth and Improvements

10 – Bicycle and Pedestrian Network Growth

11 – Car sharing

12 – More Efficient Freight Modes

13 – Compact, Mixed-Use Development

14 – Urban Growth Boundaries

15 – More Efficient Industrial Land Uses

16 – Funding Sources

17 – Pay-As-You-Drive Insurance

18 – Encourage a Continued Diversification of Oregon's Economy

The Oregon Department of Transportation's (ODOT) Statewide Transportation Strategy (STS) Short-Term Implementation Plan identifies programs that align with some of these strategies. Not all of these strategies are being pursued in this shorter timeframe; however, ODOT will continually consider and incorporate these strategies, as appropriate, into related efforts, such as statewide plans and other major studies. Furthermore, ODOT will identify strategies and specific actions to pursue through the development of the mid-term and long-term implementation plans. When these are drafted they will go before the Oregon Transportation Commission for review.

The following strategy summary sheets cover all 18 strategies and provide information on the intent of the strategy, implementation challenges and opportunities, as well as a small sampling of associated initiatives going on across the state.

Strategy 1
More Efficient, Lower-Emission Vehicles and Engines

Description

Transition to lower emission and fuel-efficient vehicles, enhanced engine technologies, and efficient vehicle design.

This strategy outlines 23 specific elements that focus on technologies that improve engine efficiency, as well as alternative fuels, such as compressed natural gas (CNG), liquefied natural gas (LNG), biofuels, and electricity.

Intent

This strategy recognizes that driving vehicles and trucks will remain important modes and seeks to reduce GHG emissions through advancements in engine technologies and low-emission vehicles. For aviation, more efficient aircraft is a way to reduce emissions for large volumes of travel.

Implementation Challenges

- In order to encourage the purchase of more efficient vehicles, legislative actions may be required to offer the incentives needed. This would require coordination with other state agencies, lawmakers, and possibly automakers to establish an incentive program.
- The promotion of alternative fuel vehicles results in reduced fuel consumption, which also reduces revenues. With this in mind, ODOT would need to seek alternative ways to finance the transportation system.
- The shift to more electric vehicles (EV) creates a greater demand on the electric power generation and distribution systems, which requires coordination with the energy sector to ensure a sufficient and clean energy supply.
- Another challenge relates to current zoning and building codes, which might not permit alternative fueling stations or allow for the incorporation of charging stations into new residential buildings.

- Transitions to more fuel efficient engine technologies may result in higher vehicle capital costs, which may in turn lead to additional shipping market consolidation and higher consumer costs. There may be operating cost savings, however, from fuel savings.

- New aircraft model characteristics and airline fleet replacement schedules are driven by economic and cost effectiveness considerations of the private sector.

Implementation Opportunities

- Oregon has made great strides in increasing the electronic charging network that is available across the state. In addition, with the passage of SB 810, Oregon is the first state in the nation to implement a vehicle miles traveled (VMT) fee. Available for up to 5,000 motorists, this program is scheduled to kick-off in July 2015.
- With the recent passage of HB 3301, the Oregon State Building Code incorporates provisions that allow local jurisdictions to require certain development projects to incorporate EV charging stations. In addition, this legislation restricts homeowner associations from preventing a homeowner from installing an EV charging station.

- The SmartWay Transport Partnership program of the U.S. Environmental Protection Agency encourages representatives of the freight industry to voluntarily improve fuel efficiency. This program also offers a competitive grant program for freight carriers interested in investing in fuel-saving equipment.

- Despite concerns related to cost, aircraft manufactures lead the way in developing more fuel-efficient engines and aircraft.

Analysis Prior to Implementation

ODOT will determine if any analysis is needed prior to moving forward with any new initiatives related to more efficient vehicles and engines.

STS Short-Term Implementation Plan

Program #1: Electric Vehicles and Low Emission Fuels helps to advance the ongoing work within Oregon around EVs and alternative fuels, such as natural gas and biogas. As is outlined in this program, ODOT proposes to expand some of its public education initiatives around the benefits and opportunities provided by EVs. In addition, this program recognizes the partnership that exists between ODOT and the Department of Energy (DOE) related to clean fuels. Other elements of this strategy are not being pursued at this time.

Other Current Initiatives

Oregon's efforts around alternative fuels started in 2010 with Governor Kulongoski's Alternative Fuel Working Group. This group made recommendations to the state for developing the infrastructure necessary to support alternative fuels and work towards statutory changes to support EVs. Oregon also joined other states in adopting a Low Emission Vehicle Program, which is spearheaded by the Oregon Department of Environmental Quality.

In September 2013, the Oregon Transportation Commission approved $4 million dollars in Congestion Mitigation Air Quality (CMAQ) funds to encourage the use of natural gas as a transportation fuel. With this approval, ODOT is working on moving this effort forward and will be administering the distribution of these funds.

Strategy 2
Cleaner Fuels

Photo credit: TriMet, http://www.flickr.com/photos/trimet/

Description

Support the development and use of cleaner fuels, including reduction of the carbon intensity of fuels.

Intent

Through advancements in fuel technology and the promotion of alternative fuels, this strategy has the potential to greatly reduce GHG emissions.

Implementation Challenges

- Infrastructure poses a challenge for the implementation of alternative fuels. As electric vehicles and other alternative fuel vehicles rise in popularity, the infrastructure needed to re-charge and re-fuel these vehicles is necessary.

- Although rapid changes in fuel prices are not anticipated with clean fuels requirements, increases remain a concern. Another concern includes the potential costs associated with retrofitting old equipment or purchasing new equipment and vehicles. Other cost concerns relate to the high capital cost for new fuel networks, such as liquefied natural gas, and the high costs of research and development.

- Similar to freight, the transition to alternative fuels raises cost concerns. More specifically, airports often need to convert fueling infrastructure to accommodate alternative fuels. The costs associated with these infrastructure improvements are sometimes prohibitive.
- Further research is required of feedstocks that could be used to create fuels with minimal need for arable land and water, and with large yields per acre.
- Lastly, there are challenges in developing and commercializing the large-scale production of the next generation of biomass feedstocks.

Implementation Opportunities

- Oregon established its Clean Fuels Program in 2009 with the passage of HB 2186. Currently, this bill is set to expire in December 2015. In 2013, SB 488 was introduced to remove this deadline. Although this bill did not pass, there may be legislative opportunities in the future to extend or remove this deadline.

- Fuel is a large cost for the freight industry. Despite concerns over the short-term costs associated with the transition to alternative fuels, alternative fuels may provide long-term cost savings to the freight industry.

- The aviation industry continues to explore the use of alternative fuels, in particular biofuels, to help reduce their carbon footprint.

Analysis Prior to Implementation

ODOT will determine if any analysis is needed prior to moving forward with any new initiatives related to more efficient vehicles. Of particular importance will be analyzing potential impacts to the freight and air industries.

STS Short-Term Implementation Plan

Program #1: Electric Vehicles and Low Emission Fuels helps to advance the ongoing work within Oregon around electric vehicles (EVs) and alternative fuels, such as natural gas and biogas. As is outlined in this program, ODOT proposes to expand some of its public education initiatives around the benefits and opportunities provided by EVs. In addition, this program recognizes the partnership that exists between ODOT and the Department of Energy (DOE) related to clean fuels.

Other Current Initiatives

Oregon's efforts around alternative fuels started in 2010 with Governor Kulongoski's Alternative Fuel Working Group. This group made recommendations to the state for developing the infrastructure necessary to support alternative fuels and work towards statutory changes to support electric vehicles. Oregon also joined other states in adopting a Low Emission Vehicle Program, which is spearheaded by the Oregon Department of Environmental Quality.

In September 2013, the Oregon Transportation Commission approved $4 million dollars in Congestion Mitigation Air Quality (CMAQ) funds to encourage the use of natural gas as a transportation fuel. With this approval, ODOT is working on moving this effort forward and will be administering the distribution of these funds.

The Port of Portland invested in a fleet that uses alternative fuels and also participated in Sustainable Aviation Fuels Northwest (SAFN), a bio-renewable aviation fuel pilot program.

Strategy 3
Operations and Technology

Description

Enhance fuel efficiency and system investments, and reduce emissions by fully optimizing the transportation system through operations and technology.

This strategy includes 23 more specific elements, which include a variety of different intelligent transportation system (ITS) technologies, such as variable speed limits, advanced signal timing, incident management techniques, and vehicle-to-vehicle and vehicle-to-infrastructure technologies. Other elements cover eco-driving and anti-idling policies. Elements 3.13 through 3.17 are specific to the freight travel market. One example includes the installation of auxiliary power supplies at truck stops, shipping terminals, and ports. Elements 3.18 through 3.23 focus on the air passenger travel market.

Intent

Through the use of technology and public education, this strategy improves operations and systems performance, increases efficiencies in the movement of goods and people, and in turn reduces GHG emissions.

Implementation Challenges

- Certain ITS strategies require significant investment to install and maintain. Adaptive signal controls, which are effective in locations with unpredictable peaks in congestion, can be an expensive investment.

- Variable speed limit programs are most effective in Europe, which automatically enforces speed limits. Although variable speed limit programs have helped to reduce crashes in the U.S., automatic enforcement encounters resistance in the U.S. where variable speeds are often advisory. Furthermore, recent proposals in the Oregon Legislature indicate some degree of public preference towards raised speed limits, not lowered.

- Strategies related to the freight market, in particular the installation of auxiliary power supplies at ports, cause concern for ports that continually work to increase their competitive edge. In addition, shippers often fear potential costs associated with fleet retrofits and upgrades needed to plug-in at port facilities. Therefore, any regulations regarding plugging in at port facilities need to address concerns regarding costs and economic competitiveness.

- Due to sequestration, the Federal Aviation Administration no longer has the funds to implement NextGen, a program that focuses on implementing fuel-efficient climb, routing, and descent for passenger aircraft, by 2015.

Implementation Opportunities

- ODOT has implemented a number of ITS pilot projects that demonstrate benefits beyond reducing GHG emissions, such as improved safety, increased system performance, and decreased operation and maintenance costs (referred to in the STS as "co-benefits"). The lessons learned from these pilot projects will help to develop and refine the details for broader application of these technologies where they will deliver the desired results.

- Oregon is not alone and other states are also attempting to reach their GHG reduction goals using similar strategies. For instance, in 2014, California will require vessels with diesel engines to plug-in while docked at port facilities.

- While there is still federal support for NextGen, with limited federal resources it will be a much longer-term implementation effort. Nonetheless, it is likely that some airports will invest in changes envisioned by NextGen to increase operational efficiencies and cost savings. There may be opportunities to support these types of efforts through *Connect*Oregon.

Analysis Prior to Implementation

Prior to the implementation of certain elements of the STS, ODOT may conduct case studies and feasibility assessments prior to the application of ITS technologies in new locations. Some elements may also require an investigation of social and economic costs and benefits.

STS Short-Term Implementation Plan

In the short term, ODOT plans to enhance its ITS-related efforts by implementing *Program #5: Intelligent Transportation Systems* of the STS Short-Term Implementation Plan. In addition, *Program #2: Eco-Driving* expands ODOT's educational efforts that provide information about the importance of reducing GHG emissions to the public. This initiative will help ODOT meet the legislative directive to educate the public about the need to reduce GHG emissions per SB 1059 (2009).

Other Current Initiatives

With new technologies on the horizon, such as autonomous vehicles and vehicle-to-vehicle communication, ODOT continues to look to the future for ways to utilize these advancements to improve the transportation system.

Opinions raised by stakeholders during the public review of the STS identified a preference for incentives rather than disincentives or penalties as a way to encourage desired change. ODOT should cooperate with private industry and federal efforts to accelerate the adoption of technologies that reduce emissions and deliver other co-benefits such as improved efficiency and safety.

ODOT's ongoing ITS initiatives include active traffic management, adaptive signal control, traffic incident management, and other projects. More specifically, ODOT has completed adaptive signal control pilot projects in Redmond and Portland and is planning additional adaptive or traffic responsive signal control projects in Lincoln City and Newberg.

In regards to traveler information initiatives, ODOT deployed TripCheckTV an animated traveler information website for display in public buildings, provided access to public transit service information including links to service providers and itinerary planners through the TripCheck transportation options tab, and variable message signs to alert motorists of impending hazards. Further updates to TripCheck include the addition of improved real time transit information for the entire state system, and a mapping application of use to both travelers and planners that contains General Transit Feed Specific (GTFS) transit route and stop data.

Other Current Initiatives (con't)

ODOT's Roadmap for Connected Vehicles Research Project will result in a recommended vision for the deployment of Oregon's priority connected vehicle system applications. In order to get to this vision, the research team will develop an inventory of connected vehicle applications and capacity, conduct stakeholder outreach, and recommend scenarios for implementation through future federally funded initiatives.

External to the agency, the Port of Portland is investing in NextGen technology to help reach the Port's internal GHG targets, which they continually track. The Oregon Department of Aviation (ODA) is exploring ways to address the lack of funding to support NextGen and similar efforts. In addition, the aviation industry's use of unmanned aerial vehicles, which use less fuel and alternative fuel, instead of planes and helicopters for some jobs (e.g. pinpointing the location of a wildfire, telecommunications line inspectors) helps to reduce GHG emissions.

Strategy 4
Airport Terminal Access

Description

Increase efficiency in all airport terminal access activities, including shifting to low and zero emission vehicles and modes for passengers, employees, and venders.

This strategy outlines three elements that focus on the air travel market and the ground passenger and commercial services travel market.

Intent

The intent of this strategy is to provide greater transportation options to airport passengers who may choose to take more efficient modes of transportation, and also create efficiencies in airport systems and operations.

Implementation Challenges

- The Oregon Department of Aviation (ODA) identified federal cuts from sequestration as one of the main challenges that Oregon airports face. This is particularly true for approaches that require infrastructure investments and the implementation of NextGen technologies.
- Extending carbon-efficient access modes and vehicles to airports outside of the Portland International Airport will be a long-term effort. Furthermore, the suitability and effectiveness of public transit access and changes to parking policies will vary.

Implementation Opportunities

- Recognizing the funding gap, ODA presented a bill to the 2013 legislature to increase the jet fuel tax by $0.02. Although this tax increase faces opposition, ODA will continue to explore options to increase funding.

Analysis Prior to Implementation

The elements outlined in this strategy are outside of ODOT's authority.

STS Short-Term Implementation Plan

The STS Short-Term Implementation Plan does not include any programs that align with this strategy.

Other Current Initiatives

In terms of more efficient operations, the Port of Portland invested in a fleet that uses alternative fuels. Employees and passengers also have the option to access the Portland International Airport by bicycle or train. In addition, regional airports across the state provide various options. For example, passengers to the Eugene Airport may utilize a shuttle service and the Rogue Valley Transportation District provides service to the Rogue Valley International-Medford Airport.

Strategy 5
Parking Management

Description

Promote better management and use of parking in urban areas to support compact, mixed-use development and use of other modes, including transit, walking, and bicycling.

This strategy has seven elements that encourage the use of parking strategies to reinforce efficient development and support multiple modes for accessing an area. This strategy seeks to encourage the use of alternative modes by promoting the use of parking management strategies. Examples include employer supported incentives, local zoning codes that reduce requirements for off-street parking, and parking restrictions such as penalties and time limits. This element also calls for providing secure and convenient bicycle parking in key areas and supports the use of timely information about costs to influence travel behavior.

Intent

This strategy seeks to support compact, mixed-use development and alternative transportation options in urban areas thereby reducing transportation related GHG emissions. The strategy includes both incentives and disincentives which may influence individual choice and actions in support of transportation efficient development.

Implementation Challenges

- Parking is frequently a controversial issue in communities. Many business owners and operators feel that their success relies on an ample and easily accessible supply of parking, as do the customers that want convenient access to the business. The same can be true for access to work and home for employees and residents.
- Changes that are implemented to restrict parking or increase the cost of parking are often strongly resisted.
- ODOT facilities can be affected if the state highway passing through a community is also the local jurisdiction's main street. In these cases, ODOT's main interest would be that parking and parking management not unnecessarily impede through movement, particularly for freight.

Implementation Opportunities

- The parking management strategy is closely linked with transportation options strategies. More specifically, providing alternative forms of access to an area supports better managed parking infrastructure and requires less space for parking.
- ODOT encourages parking management through the Transportation System Planning Guidelines, which can be supported by the Transportation and Growth Management (TGM) program.

Analysis Prior to Implementation

Local jurisdictions pursuing changes to parking fees may consider economic costs and benefits.

STS Short-Term Implementation Plan

Although no specific programs are identified that align with this strategy, the agency should continue to support local planning efforts, with consideration of STS strategies, within the limits of the planning budget.

Other Current Initiatives

The TGM program supports community efforts to expand transportation choices by linking transportation and land use planning. Local jurisdictions can apply for planning assistance, education and code assistance help. These resources can be used to develop parking management plans, implement employee cash out programs, and revise zoning codes.

The TGM program just developed and published a document called: *Parking Made Easy: A Guide to Managing Parking in Your Community*, which is available online. Additionally, the new *Model Code for Small Communities* has a section on parking and is also available online. Technical assistance is offered through the TGM program.

The Oregon GHG Reduction Toolkit offers strategy reports on parking pricing and parking management to help local jurisdictions explore and consider options.

Strategy 6
Road System Growth

Description

Design road expansions to be consistent with the objectives for reducing future GHG emissions by light duty vehicles.

This strategy includes five elements that are designed to make GHG emissions reduction a conscious goal as future road capacity improvements are considered. The approaches outlined include: changing modes or diverting travelers, using GHG emissions budgets in the planning process, considering induced demand from a project, supporting development that avoids expansion, and integrating multimodal solutions to manage transportation demand.

Intent

This strategy is aimed at expanding road capacity where needed, but more consciously considering when other solutions would suffice. More specifically, the exploration of alternatives to road expansion, such as multimodal solutions, and the avoidance of induced demand are key to this strategy.

Implementation Challenges

- Oregon's economy relies on efficient, safe and secure transportation services. Increasing population and roadway congestion are often seen as, and can be, an impediment to economic development.
- Programs that reduce demand and increase operational efficiency may not keep pace with growing population and income, which could lead to increases in congestion depending on the availability of alternative modes to help support increased demand. Congestion is particularly an impediment to roadway freight movement and can increase GHG emissions due to idling.

Implementation Opportunities

- ODOT statewide plans and design guidance support the concept of being strategic in maintaining the performance of the transportation system and considering other options before capacity improvements. Due to limited funding for capacity improvements on the roadway, this has been the practice for many years.
- The Oregon Highway Plan (OHP), Action 1G.1 prescribes the use of four measures prioritized as follows: 1) protect the existing system, 2) improve efficiency and capacity of existing highway facilities, 3) add capacity to the existing systems, and 4) add new facilities to the system. In addition, the Oregon Transportation Plan (OTP) Strategy 1.1.4 prescribes using the most cost effective modes and solutions over the long term.
- ODOT's existing practices, outlined in the Practical Design Strategy, support designing the roadway system under fiscal constraint and actively seeking opportunities to achieve lower cost improvements while improving the overall transportation system.

Analysis Prior to Implementation

This strategy falls within current practices; and therefore, no analysis is necessary.

STS Short-Term Implementation Plan

Program #4: Strategic Assessments and Scenario Planning outlines ODOT's commitment to continue to work with metropolitan areas and associated jurisdictions on strategic assessments and scenario planning efforts. Strategic assessments provide metropolitan areas an opportunity to evaluate how their region's transportation system will perform in the future assuming that adopted plans are implemented and current trends continue.

Other Current Initiatives

ODOT continues using the major improvements approach outlined in the OTP and the OHP, as well as practical design strategies. ODOT also continues to work with local governments and other agencies to target the type of improvements needed to support economic development in Oregon.

ODOT continues to look at transportation solutions holistically and considers multimodal solutions.

When updating long-range plans, ODOT should consider similar policies and strategies around major improvements.

Strategy 7
Transportation Demand Management

Description

Support and implement technologies and programs that manage demand and make it easier for people to choose transportation options.

This strategy outlines 10 elements that focus on the ground passenger and commercial services travel market.

Intent

The intent of this strategy is to ensure that individuals have a variety of options to choose from when traveling, and let the market and individual choice drive use or modal decisions.

Implementation Challenges

- The Transportation Growth Management program recently published a document entitled *Transportation Demand Management (TDM) Plans for Development*. This publication outlines some of the difficulties of incorporating programmatic TDM strategies, such as subsidized transit passes for employees, into the land use review process. Although challenging, in part due to the need for ongoing monitoring, this report outlines some recommendations for local jurisdictions interested in pursuing these options as part of the land use development process.

- The elements associated with this strategy may require public incentives to implement remote conferencing or work-center strategies to improve private sector cost effectiveness and participation.

Implementation Opportunities

- Initiatives that focus on communicating the variety of transportation options to travelers are often low cost to implement and have the potential to greatly reduce emissions. Furthermore, these initiatives empower travelers to make informed travel choices.

Analysis Prior to Implementation

During the development of the STS, some stakeholders expressed concerns over the potential for mode shift from TDM strategies. For example, the promotion of telecommuting may reduce business trips by air. ODOT does not plan to implement a program forcing modal diversion. Instead, ODOT is interested in facilitating transportation options. ODOT will be mindful of potential impacts to travel and other factors when implementing telecommuting and other TDM strategies.

STS Short-Term Implementation Plan

Program #6: Transportation Planning ensures that statewide plans consider the STS and work to move in the direction of the STS vision. This program includes the Oregon Transportation Options (TO) Plan, expected to be complete in late 2014.

Other Current Initiatives

Oregon's first TO Plan will establish a vision and policy framework that integrates transportation options in local, regional, and state transportation planning, programming, and investment.

Travelers in ODOT Region 5 often have to travel long distances due to the rural character of eastern Oregon. As such, travelers with like destinations started coordinating and creating informal park-and-rides near freeway on-ramps. Upon noticing the creation of these park-and-rides, Region 5 is looking at ways to make these informal locations official park-and-rides accessible to more travelers.

In November 2013, the Oregon Drive Less Challenge ran for 12 days and exceeded expectations by eliminating 913,664 vehicle miles and 658,696 pounds of carbon dioxide emissions. It also saved over 33,899 gallons of gasoline and $225,460 by reducing the number of single-occupant car trips. The challenge was spearheaded by ODOT and its partners as part of the state's ongoing efforts to reduce GHG emissions and to alleviate traffic congestion.

The Rogue Valley Metropolitan Planning Organization recently initiated a Clean Air Campaign. Although this program focuses on reducing air pollution, it has the added benefit of reducing GHG emissions. A major component of this program is providing educational materials to its residents about ways it can reduce pollution from the transportation sector. Some options may include TDM strategies.

Strategy 8
Intercity Passenger Growth and Improvements

Description

Promote investment in intercity passenger public transportation infrastructure and operations to provide more transportation options that are performance and cost competitive.

The five elements in this strategy address transportation options for intercity travel including high-speed rail and bus services that connect service between metropolitan areas and population and job centers. The focus is on investment in high-volume corridors where there is the potential for modal diversion through the provision of transportation options.

Intent

The intent of this strategy is to ensure that individuals have a variety of options to choose from when traveling, and let the market and individual choice drive use or modal decisions.

Implementation Challenges

- The lack of adequate, sustainable long-term funding for rail and public transportation makes investment in intercity passenger movement challenging. Furthermore, implementation barriers, such as track geometry and right-of-way issues could make service above 110 miles per hour difficult to achieve.
- The limited miles of tracks in high use corridors means that freight and passenger rail compete for track usage.
- Stakeholders expressed concerns over competition between rail, bus, and air during the development of the STS.

Implementation Opportunities

- The Oregon Transportation Plan Policy 1.1: Development of an Integrated Multimodal System supports this strategy.
- ODOT is conducting the Oregon Passenger Rail Environmental Impact Statement Project as the next step to improving passenger rail services in Oregon for the federally designated Pacific Northwest Rail Corridor between Eugene and Portland. Work is expected to conclude in late 2014.
- A Task Force provided the Oregon Transportation Commission a report on Oregon Rail Funding, which outlined types of fees that could be utilized to develop funding for rail passenger and freight.
- *Connect*Oregon is a potential multimodal funding source provided by the Oregon Legislature, which can help to implement this strategy.

Analysis Prior to Implementation

Two important objectives of the Oregon Passenger Rail project include promoting economic development and protecting freight rail carrying capability. Therefore, as part of this project, ODOT is coordinating with representatives of the freight rail system to work out solutions that will be compatible with freight rail operations.

STS Short-Term Implementation Plan

Program #4: Strategic Assessments and Scenario Planning outlines ODOT's commitment to continue to work with metropolitan areas and associated jurisdictions on strategic assessments and scenario planning efforts. Strategic assessments provide metropolitan areas an opportunity to evaluate how their region's transportation system will perform in the future assuming that adopted plans are implemented and current trends continue.

Program #6: Transportation Planning and Project Selection ensures that ODOT will incorporate the STS into statewide plan updates. Through the Oregon Public Transportation Plan Update, ODOT will provide a policy foundation to support an integrated, well connected transportation system. The Oregon Rail Plan Update, expected to be completed in mid-2014, will outline policies and strategies related to decreasing travel time, improving service reliability, and improving passenger connections to transit, bus, auto, bicycle and pedestrian modes.

Other Current Initiatives

In the review of transportation system plans, ODOT helps to identify opportunities for intercity public transportation systems. In addition, through the review of regional transportation plans, ODOT encourages work with nearby cities to include public transportation opportunities to reduce vehicle miles traveled.

Through TripCheck and Drive Less Save More, ODOT supports electronic trip and itinerary planning so that travelers have readily available information about alternative transportation services.

ODOT continues to study options for improved passenger rail service between the Columbia River in the Portland metro area and the Eugene-Springfield area through the Oregon Passenger Rail project. ODOT also continues to support incremental rail improvements in the Cascade Corridor, as well as intercity bus and express intercity bus.

The Confederated Tribes of the Umatilla Indian Reservation offer free intercity bus service to multiple jurisdictions in northeastern Oregon and southeastern Washington and are currently exploring opportunities for expansion.

Strategy 9
Intracity Transit Growth and Improvements

Description

Investing in public transportation infrastructure and operations to provide more transportation options and help reduce single-occupant vehicle travel.

The eight elements of this strategy address various approaches to improve and expand public transportation infrastructure to provide a more complete public transportation system. The elements include incentives for mode shift, increased service and schedules, provision of transportation payment options and utilizing existing infrastructure where possible.

Intent

The intent of this strategy is to ensure that individuals have a variety of options to choose from when traveling, and let the market and individual choice drive use or modal decisions.

Implementation Challenges

- The lack of adequate, sustainable long-term funding for public transportation makes expansion of the system by local governments difficult. Beyond expansion of the system, there appears to be inadequate funding assistance for operation of the system.
- Some existing transit routes are not at capacity, in terms of ridership, and increasing ridership rates can be challenging.
- Public perception may be that public transportation services are only of interest to people who cannot or choose not to drive. It is difficult to convey that public transportation services have broader uses and benefits.
- Different funding sources from various federal and state agencies come with different requirements and support different types of users, making it difficult to achieve efficiencies. For instance, the funding to get students to and from schools may not align with the transportation needs of the elderly and disabled.
- In general, there are currently limited transit service options for rural communities.

Implementation Opportunities

- With input from local jurisdictions, ODOT produced the Scenario Planning Guidelines and a Toolkit. These guidance documents outline an array of planning options that local jurisdictions may consider as part of GHG emissions reduction planning efforts.
- Traveler information that outlines various transportation options and travel time is currently offered on TripCheck.
- As ODOT works to incorporate the STS into statewide plans, metropolitan planning organizations (MPOs) and local jurisdictions may also consider the STS in transit planning efforts.

Analysis Prior to Implementation

Some future funding programs may require an economic analysis for the development of project priorities.

STS Short-Term Implementation Plan

Program #4: Strategic Assessments and Scenario Planning outlines ODOT's commitment to continue to work with metropolitan areas and associated jurisdictions on strategic assessments and scenario planning efforts. Strategic assessments provide metropolitan areas an opportunity to evaluate how their region's transportation system will perform in the future assuming that adopted plans are implemented and current trends continue.

Program #6: Transportation Planning and Project Selection ensures that ODOT will incorporate the STS into statewide plan updates. Through the Oregon Public Transportation Plan Update, ODOT will provide a policy foundation for public transportation. It will discuss the public transportation service needs for communities of various sizes, and consider different funding mechanism. Through statewide plan updates ODOT may also consider ways to couple transit services with parking pricing.

Other Current Initiatives

Through the review of transportation system plans, ODOT identifies opportunities for intracity public transportation systems and policies that support an appropriate level of public transportation for the community's size and needs. The success of intracity transit is dependent on land use configurations and needs to be closely coordinated with land use plans.

Through TripCheck and Drive Less Save More, ODOT supports electronic trip and itinerary planning so that travelers have readily available information about alternative transportation services.

External to ODOT, the Portland-Milwaukie Light Rail Transit Project will expand TriMet's light rail system by 7.3 miles. This expansion will connect Milwaukie and north Clackamas County with downtown Portland.

Strategy 10
Bicycle and Pedestrian Network Growth

Description

Encourage local trips, totaling twenty miles or less round-trip, to shift from single-occupant vehicle (SOV) to bicycle, walking, or other zero emission modes.

The strategy contains five more specific elements that address infrastructure design elements that facilitate safe bicycling and walking, and the promotion of bicycle sharing, bicycle parking and support of other zero-emissions options. It also supports development of funding sources for bicycle and pedestrian infrastructure.

Intent

The intent of this strategy is to ensure that individuals have a variety of options to choose from when traveling, and let the market and individual choice drive use or modal decisions.

Implementation Challenges

- The apparent lack of adequate and sustainable funding for multimodal improvements makes development of infrastructure difficult.
- Some individuals and businesses see a conflict with other mode movements, particularly the movement of freight.
- Creating a transportation network that is safe for all modes is a challenge. In some circumstances, a measure that is intended to make one mode safe, may not be perceived or actually safe for another mode, and vice-versa.
- During the outreach for the STS, some stakeholders shared the concern that not all users of the system provide funds for the development of infrastructure.

Implementation Opportunities

- ODOT is working on internal processes to better identify and fund strategic multimodal transportation project solutions to address particular problems. Following this direction, the Statewide Transportation Improvement Program (STIP) is no longer developed as a collection of programs tied to specific pools of funding dedicated to specific transportation modes or specialty programs. The purpose of this change is to take care of the existing transportation assets while still providing a measure of funding to enhance the state and local transportation system in a multimodal way. Although bike and pedestrian modes no longer have dedicated flexible funding for projects under this new paradigm, they are eligible to compete for a larger pool of funding than what was previously available.
- Chapter 366, Section 514 of the Oregon Revised Statues outlines the provisions for the inclusion of bicycle and pedestrian facilities in highway and road projects.
- A special fee for motor vehicle licenses, Share the Road, collects money for use by two non-profit bicycle advocacy groups: the Bicycle Transportation Alliance and Cycle Oregon.
- *Connect*Oregon is a multimodal funding program provided by the Oregon Legislature. Off-road bicycle and pedestrian improvements are now eligible to compete for funding through this program. Such projects include multi-use trails and the promotion of bike tourism.
- As ODOT works to incorporate the STS into statewide plans, metropolitan planning organizations (MPOs) and local jurisdictions may also consider the STS in bicycle and pedestrian planning efforts.

Analysis Prior to Implementation

This is an ongoing effort, so no analysis is required by ODOT.

Some funding programs may require an economic analysis for comparison of project priorities.

STS Short-Term Implementation Plan

Program #6: Transportation Planning and Project Selection ensures that statewide plans consider the STS and work to move in the direction of the STS vision. This program includes the Statewide Bicycle and Pedestrian Plan Update, which is anticipated to be complete in mid-2015. The Plan will outline the statewide policy direction for these modes and how bicycles and pedestrians interact with other modes.

Other Current Initiatives

Consideration of bicycle and pedestrian needs is included in the Department of Land Conservation and Development's Transportation Planning Rule. When ODOT reviews transportation system plans, it identifies opportunities for bicycles and pedestrians, as well as other zero emission modes, and encourages a safe, interconnected multimodal system.

ODOT provides bicycle and pedestrian information electronically through Drive Less Connect, which matches people with places. Travel Oregon's RideOregonRide.com also provides bicycle traveler information. In addition, funding opportunities exist through the STIP and *Connect*Oregon.

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Strategy 11
Carsharing

Description

Enhance the availability of carsharing (short-term self-service vehicle rental and/or peer-to-peer) programs to reduce the need for households to own multiple vehicles and to reduce household vehicle miles traveled.

Carsharing is one of a suite of transportation options that provide choice for transportation system users. The two elements address incentives and formal and informal mechanisms to share vehicles.

Intent

The intent of this strategy is to ensure that individuals have a variety of options to choose from when traveling, and let the market and individual choice drive use or modal decisions.

Implementation Challenges

- Carsharing opportunities will likely be driven by private enterprise or public/private partnerships and locate in more urban areas.
- There may be a need for local governments to integrate carsharing programs and regulations with high need areas, such as transit stops.
- For personal vehicle carsharing (peer-to-peer) programs to operate, liability insurance issues must be addressed to avoid prohibitively high insurance costs for car owners whose vehicles are used in the program.

Implementation Opportunities

- The Oregon Transportation Plan Policy 1.1: Development of an Integrated Multimodal System supports this strategy.

Analysis Prior to Implementation

If an incentive funding program is developed, it may require an economic analysis for comparison of project priorities.

STS Short-Term Implementation Plan

Program #6: Transportation Planning and Project Selection ensures that ODOT will incorporate the STS into statewide plan updates. The Oregon Transportation Options Plan and the Oregon Public Transportation Plan Update may include policies related to carsharing.

Through the review of transportation system plans, ODOT may identify opportunities for transportation options such as carsharing.

Other Current Initiatives

Carsharing is a business idea that works because people can save money on car payments and insurance premiums; yet have access to a vehicle or a different type of vehicle without the hassle of vehicle ownership. It may work as a green business without publicly funded incentives.

ODOT's Drive Less Save More website includes carshaing as an option.

Carsharing programs are already available in many cities, including Portland, Eugene, Corvallis and Medford/Ashland.

Strategy 12
More Efficient Freight Modes

Description

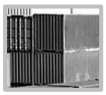
For the commodities and goods where low carbon modes are a viable option, encourage a greater proportion of goods to be shipped by rail, water, and pipeline modes.

The six elements of this strategy include relieving freight bottlenecks and modernizing multimodal infrastructure to provide lower carbon options for freight shipments. It also includes minimizing extraneous shipping materials and providing informational materials about carbon efficiency of modes for shippers and consumers, as well as rail issues around grade separation and preservation of rail lines.

Intent

The intent of this strategy is to ensure that shippers and carriers have a variety of options to choose from when moving goods, and let the market and business choice drive use or modal decisions.

Implementation Challenges



- Considerable capital costs are associated with major capacity expansions of rail, marine, and pipeline networks. The lack of adequate and sustainable funding for multimodal improvements and the high cost of modal infrastructure improvements makes the provision of options difficult. Furthermore, many commodity types are not amenable to being shipped by other modes.
- Since rail lines are in private ownership, it is difficult to influence rail line funding priority decisions.
- Shipping decisions are mainly driven by location, cost and delivery timelines; spheres where the state has little influence.

Implementation Opportunities

- The Oregon Freight Plan, Freight Issue 2, identifies the need to define and establish criteria regarding freight constraints, congestion, unreliability, and geometric deficiencies in key highway, rail, and marine freight corridors.
- *Connect*Oregon is a multimodal funding program provided by the Oregon Legislature, which can be used to support this strategy.

Analysis Prior to Implementation

If used as criteria in an improvement program, it may require an economic analysis for comparison of priority projects.

STS Short-Term Implementation Plan

Program #4: Strategic Assessments and Scenario Planning outlines ODOT's commitment to continue to work with metropolitan areas and associated jurisdictions on strategic assessments and scenario planning efforts. Strategic assessments provide metropolitan areas an opportunity to evaluate how their region's transportation system will perform in the future assuming that adopted plans are implemented and current trends continue.

Program #6: Transportation Planning and Project Selection ensures that ODOT will incorporate the STS into statewide plan updates. The Oregon Rail Plan Update, expected to be completed in mid-2014, will address grade separation projects and the preservation of rail lines for future potential capacity needs.

Other Current Initiatives

The Oregon Freight Plan includes strategies for considering freight improvements in system plans with the intent to improve supply chain performance and the need to increase modal alternatives on key freight corridors. Increase in modal alternatives encourages the development of carload, transload consolidation facilities where there is market support for such facilities.

ODOT should examine *Connect*Oregon project criteria to support efficient multimodal projects.

Strategy 13
Compact, Mixed-Use Development

Description

Promote compact, mixed-use development to reduce travel distances, facilitate use of zero or low energy modes (e.g. bicycling and walking) and transit and enhance transportation options.

The strategy outlines four specific elements, which promote the creation of complete, self-sufficient communities and encourage higher intensity development that promotes sustainable transportation options, such as transit, walking, and biking. This strategy also supports adjusting development codes to remove barriers to mixed-use development.

Intent

The strategy promotes creating communities that support the integration of land use and transportation, including efficient street networks, modal connections, and compact land use, which together reduce travel demand and transportation related GHG emissions.

Implementation Challenges

- The primary challenge will be accommodating increased population and supporting economic growth while also maintaining the sustainable use of valuable land resources and minimizing adverse impacts on the transportation system.
- A significant challenge is providing sufficient transportation infrastructure funding to support increased availability of transportation options.
- Although land use considerations are under the authority of local governments, ODOT provides system information and policy direction for transportation planning and encourages efficient transportation plans that support compact, mixed-use development.

Implementation Opportunities

- Oregon has encouraged transportation planning that includes land use considerations for over two decades. The Land Conservation and Development Commission's Goal 12: Transportation came into effect in 1991. ODOT has a strong policy foundation, in both the Oregon Transportation Plan and the Oregon Highway Plan, that guides and informs the local planning process where land use decisions affect state transportation facilities and services.
- The Transportation Growth Management (TGM) Program makes funding available to local jurisdictions to develop and update transportation system plans and plan for transportation and land use in a coordinated manner. As part of these efforts, the ODOT Region staff work with local governments.
- The passage of SB 1059 (2010) required ODOT and the Department of Land Conservation and Development (DLCD) to develop guidance documents for local jurisdictions considering GHG reduction planning. ODOT and DLCD developed the Scenario Planning Guidelines and a Toolkit, with input from local governments, to outline an array of planning options that can be considered in local planning processes.

Analysis Prior to Implementation

This is an ongoing program, and therefore, no analysis is required.

STS Short-Term Implementation Plan

Program #4: Strategic Assessments and Scenario Planning outlines ODOT's commitment to continue to work with metropolitan areas and associated jurisdictions on strategic assessments and scenario planning efforts. Strategic assessments are designed to assess the potential outcomes of a metropolitan area assuming adopted land use and transportation plans are implemented and current trends continue. Strategic assessments also provide metropolitan areas the opportunity to look at what potential actions may help the metropolitan area reach identified community goals.

Other Current Initiatives

ODOT supports local planning efforts, with consideration of STS strategies, within the limits of the planning budget.

The TGM program is an ongoing program dedicated to supporting local transportation and land use planning efforts. The grant selection criteria for the TGM program currently contains criteria that support transportation and land use planning that encourages compact, mixed-use development. In the current biennium, the TGM program will use code assistance funding to develop GHG reduction related model code language that local jurisdictions can adapt to local conditions. The TGM program will also continue to help individual cities update their existing codes.

Strategy 14
Urban Growth Boundaries

Description

Create full-service healthy urban areas to accommodate most expected population within existing Urban Growth Boundaries (UGB) through infill and redevelopment.

The urban growth boundary strategy, like the compact, mixed-use development strategy, considers using land resources efficiently while accommodating population increases and supporting economic development opportunities. The current rate of UGB expansion is at about 15% of population growth in Oregon metropolitan areas. This strategy proposes that Oregon continue to maintain that level.

Intent

The intent of this strategy is to maintain the expansion of urban growth boundaries at about the current rate of growth experienced in metropolitan areas to decrease sprawl and support GHG emissions reduction.

Implementation Challenges

- Accommodating increased population and supporting economic growth have to be coupled with the sustainable use of land resources in the state. Greenfield development is often less expensive than infill development, which makes areas outside of the current UGB more attractive to developers. Therefore, it is important to incentivize infill development and create suitable sites within the UGB for redevelopment through the provision of adequate infrastructure, which may be difficult due to limited infrastructure funding. ODOT does not have decision authority with regard to UGB amendments. This authority lies with local jurisdictions, subject to the Department of Land Conservation and Development (DLCD) acknowledgment.

Implementation Opportunities

- Continue working with local governments and DLCD to ensure that state transportation facilities are adequate to serve new urban uses at the time of urban growth boundary changes, or that plans and funding are in place to make necessary improvements.
- Continue to work with DLCD on land use initiatives and rulemaking to ensure adequate transportation facilities and services are considered in a timely manner during the review of UGB amendments.
- The Transportation Growth Management (TGM) program is supportive of local efforts to accommodate growth within existing UGBs through compact, infill development.

Analysis Prior to Implementation

No analysis is required in the immediate term.

STS Short-Term Implementation Plan

The STS Short-Term Implementation Plan does not include any programs that directly align with this strategy. However, as opportunities arise, ODOT will work with local governments early in the decision process to determine the impact of a proposed UGB expansion on transportation facilities and whether necessary improvements can be made within the planning horizon. If reasonable solutions cannot be reached to make state transportation facilities adequate for urban development, ODOT may consider an appeal of the local decision.

Other Current Initiatives

HB 2254, from the 2013 Legislative Session, deals with the creation of options for cities outside of Metro to project need, based on population growth, for additional land for housing and jobs to be included within the UGB. The law is intended to simplify the methods that establish priorities in the selection of land that can be included.

DLCD has appointed a UGB Rulemaking Advisory Committee and ODOT will participate on that committee. Rulemaking is expected to be completed sometime in 2014.

Strategy 15
More Efficient Industrial Land Uses

Description

Encourage and incentivize more efficient use of industrial land through closer proximity of shippers and receivers, consolidate distribution centers and better access to low carbon freight modes.

This strategy includes three more specific elements promoting industrial development in multimodal, transportation efficient locations. This includes industrial park locations, planning for urban consolidation centers and planning for freight movement in key transportation corridors that serve major industrial uses.

Intent

The intent of this strategy is to encourage lower carbon, multimodal transportation options and consolidation centers that are strategically located to support business and industry in Oregon and assist in the reduction of transportation related GHG emissions.

Implementation Challenges

- Industrial land sites with access to multiple, abundant transportation modes are in limited supply. Therefore, it is important to preserve industrial uses and to make new industrial sites more efficient by co-locating resources. Due to conversion pressures, it is also important to protect vacant industrial lands.
- Development of sites designed to implement the types of integrated systems identified here, such as eco-industrial parks or urban consolidation centers, would rely primarily on private funding, and potentially public-private partnerships.

Implementation Opportunities

- The Oregon Freight Plan recognizes the need to better integrate freight facility needs into land use planning. The plan includes actions to support inclusion of freight in regional and local land use planning processes and encourage local governments to integrate industrial land planning into comprehensive plans and actions.

Analysis Prior to Implementation

If an incentive funding program is developed, it may require an economic analysis for comparison of priority projects.

STS Short-Term Implementation Plan

Program #4: Strategic Assessments and Scenario Planning outlines ODOT's commitment to continue to work with metropolitan areas and associated jurisdictions on strategic assessments and scenario planning efforts. Strategic assessments are designed to assess the potential outcomes of a metropolitan area assuming adopted land use and transportation plans are implemented and current trends continue. Strategic assessments also provide metropolitan areas the opportunity to look at what potential actions may help the metropolitan area reach identified community goals.

Other Current Initiatives

ODOT continues to work with local governments and the Department of Land Conservation and Development (DLCD) to support more efficient industrial land uses and increase the focus on freight infrastructure and services in industrial land planning.

As opportunities arise to work with local governments in development review related to industrial sites, ODOT takes into account anticipated impacts on transportation facilities, particularly freight routes, and opportunities to improve conditions for freight.

ODOT leadership regularly meets with DLCD, Business Oregon and the Governor's office to discuss high-level issues that cut across agencies.

The ODOT Director is part of the Economic Recovery Review Council which also includes the Department Directors of Business Oregon, Environmental Quality, Land Conservation and Development and State Lands. This Council was put in place to help expedite the review and approval of industrial development projects of state and regional significance.

Strategy 16
Funding Sources

Description

Move to a more sustainable funding source that covers the revenue needed to maintain and operate the transportation system and accounts for the true cost of travel.

This strategy outlines 11 specific elements, including the restructuring of user fees to account for the true cost of travel. True cost pricing considers not only the costs of using the transportation system (e.g. construction, maintenance, and operations), but also the social costs imposed on others (e.g. costs of air pollution, GHG emissions, congestion costs). Implementing a road user fee is one strategy already being explored by the state. Other elements proposed include congestion pricing and carbon fees.

Intent

The intent of this strategy is to explore alternative financing mechanisms that offset decreasing gas tax revenues and to generate added revenue required to adequately fund increasing transportation infrastructure and maintenance needs. Funds could be used to cover future STS implementation programs. In addition, this strategy includes the investigation of additional fees to capture impacts to climate change and inform transportation users about the costs of carbon.

Implementation Challenges

- The complex nature and confusion around changes to taxes and/or fees often makes public support a challenge. It may be difficult to build support for the concept that users should pay the true cost of transportation.

- Oregon has used a form of a weight-mile tax on commercial vehicles over 26,000 pounds since 1925. Oregon faced opposition from the trucking industry in 2000 when the industry challenged this tax, saying that it discriminated against non-Oregon based interstate firms. In 2005, the Oregon Supreme Court ruled in favor of the State. As this illustrates, changes in user fees are often contentious. Therefore, pursuing changes to the current system may likely face challenges. Most notably, potential increased fees and vehicle upgrade costs associated with any variable tax that considers vehicle efficiency raises concerns for trucking companies and haulers.

- Although common in some foreign countries, the validity and benefits of carbon fees remain highly debated in the U.S. Any effort to establish a transportation-related carbon fee or tax in Oregon will be a long-term effort that may require support from the federal government and other states, and the participation of a broad range of stakeholders.

Implementation Opportunities

- Decreasing gas tax revenues combined with increasing infrastructure needs has led many states across the country to explore alternative strategies to financing the transportation system. In fact, since 2001 ODOT has studied the feasibility of road user fees. An opportunity lies with the recent passage of SB 810 (2013), which allows Oregon drivers to voluntarily participate in a program and pay a 1.5-cent per mile fee and receive a gas tax reimbursement. This voluntary program is the first step in ensuring an equitable system for all users of the roadway. Furthermore, it provides opportunities for ODOT to reach out to the public and provide information on declining revenues for transportation maintenance and improvements.

- Decreasing revenues and increasing needs affects all states across the nation. Therefore, in exploring true cost pricing through the existing weight-mile tax, opportunities may exist to establish multi-state efforts. Furthermore, any effort that helps improve efficiencies may result in a win for the state and a win for industry.

- The Oregon Department of Aviation (ODA) presented a bill to the 2013 legislature to increase the jet fuel tax by $0.02. Although this tax increase faces opposition, ODA will continue to explore options to increase funding.

Analysis Prior to Implementation

Before implementing any funding strategy, ODOT will consider the potential social and economic costs and benefits of the policy. Any future analyses will be tailored to the specific program, but may include the following:

- A qualitative and/or quantitative examination of options, including their implementation costs, benefits and disbenefits;
- An assessment of economic impacts, and ways to mitigate those impacts;
- An examination of equity and whether certain groups (such as, but not limited to small businesses, low-income households, and federally-protected classes) and/or geographic areas are disproportionately affected; and
- A research review on similar statewide efforts, with a particular focus on the western U.S.

STS Short-Term Implementation Plan

Program #3: Road User Charge Economic Analysis, outlined in the STS Short-Term Implementation Plan, relates to this strategy. The implementation of this program supports ODOT's ongoing efforts related to the exploration of switching from a gas tax to vehicle miles traveled fee.

Other Current Initiatives

In 2001, the Oregon Legislature created the Road User Fee Task Force to explore alternative approaches to financing the transportation system beyond the gas tax. These efforts came out of an early recognition of declining revenues and the recognition that the gas tax no longer accurately reflects the use of the road system because of the disparity in fuel efficiency. In 2013, the legislature passed SB 810, which authorizes ODOT to charge a fee of 1.5 cents per mile and issue a gas tax refund to up to 5,000 volunteer motorists. This project will begin July 1, 2015.

For trucks over 26,000 pounds conducting commercial operations on public roadways, Oregon requires the payment of a weight-mile tax. Under this taxing structure, the per mile tax rate increases with the weight of the vehicle.

In 2013, the Oregon Legislature passed SB 306 which directs the Legislative Revenue Office to prepare preliminary and final reports on the feasibility of a statewide fee or tax on GHG emissions.

Strategy 17
Pay-As-You-Drive Insurance

Description

Promote Pay-As-You-Drive Insurance (PAYD) programs that allow drivers to pay per-mile premiums, encouraging less driving through insurance savings.

The strategy looks at working with insurance companies to offer and encourage the use of PAYD insurance. The strategy starts with encouragement and in the long-term would look at the potential for mandating that insurance companies provide this option.

Intent

PAYD insurance offers incentives for driving less by saving drivers money on car insurance; driving less reduces fuel consumption and GHG emissions.

Implementation Challenges

- It would likely take a legislative mandate to require insurers to offer PAYD insurance. Such a mandate would need to be driven by the Department of Consumer and Business Services who authorize vehicle insurance companies in Oregon.
- The PAYD plans currently available require a data logging device (DLD). Vehicles built before 1996 do not have the required port available.
- Most plans also consider driving behavior, collected through the DLD, which can record data that individuals may not want available to their insurance company. Behaviors include actions such as hard braking, acceleration, speed, and sharp turning. Insurance companies that offer this type of insurance often accompany it with an incentive for good driver behavior.

Implementation Opportunities

- Pay-as-you-go (same as PAYD) auto insurance for personal vehicles is currently available through a number of insurance providers in Oregon.
- Options are available for business vehicles. The business programs are geared to small-to-medium fleets ranging from heavy trucks to business use passenger vehicles.

Analysis Prior to Implementation

No analysis is required for implementation. Individual drivers would have to decide whether to participate in this option, which would likely be determined by their anticipated mileage.

STS Short-Term Implementation Plan

The STS Short-Term Implementation Plan does not include any programs that align with this strategy. However, if it were determined in the future to try to mandate companies to offer PAYD insurance, ODOT will work with the Department of Consumer and Business Services, as needed.

Current Initiatives

The State of Oregon currently encourages the provision of pay-as-you-go insurance by offering a tax credit for insurance companies with mileage-based or time-based rating plans. Insurance companies that seek to qualify for the tax credits establish formal programs that count miles, time of day, or some combination of these factors to calculate the premium.

Strategy 18

Encourage a Continued Diversification of Oregon's Economy

Description

Maintain economic prosperity through an increase in the value per ton (the "value-density") of goods produced in the state, which is projected to reduce shipping costs and GHG emissions from any given level of economic output.

This strategy has five more specific elements that mainly support the diversification of Oregon's economy through growth in value-added industries, consistent with the Oregon Business Plan. Elements include investing in higher education and training programs, encouraging the co-location of value-added industries, providing incentives to develop this type of industry, as well as dealing with waste prevention and minimization programs.

Intent

This strategy seeks to develop a greater proportion of goods finished and consumed locally and reduce GHG emissions by decreasing the distance goods are shipped. While this strategy is not directly related to transportation, it is an acknowledgement that consumption of goods and goods movement greatly impacts GHG emissions. This strategy seeks to provide opportunities to foster a diversification of Oregon's economy, but not to force it.

Implementation Challenges

- Development and funding of industry co-location sites would fall largely to private developers and potentially public private-partnerships.
- Funding for multimodal transportation infrastructure may be needed, particularly in rural and congested areas.
- Training workers for high-value density industries requires investment in post-secondary education and job training programs.

Implementation Opportunities

- Transportation infrastructure and investment, the provision of multiple transportation options, is an initiative of ODOT.
- The Oregon Business Plan initiatives are intended to improve the conditions for economic success in Oregon. The Plan recognizes that there are particularly strong opportunities in value-added and specialty products.
- *Connect*Oregon is a multimodal funding program provided by the Oregon Legislature that helps to fund implementation aspects of this strategy.

Analysis Prior to Implementation

No analysis is required for ODOT efforts; however, other state agencies may consider conducting further analyses depending on their policies and procedures.

STS Short-Term Implementation Plan

The STS Short-Term Implementation Plan does not include any programs that align with this strategy. However, state agencies should continue exploring issues related to a diverse economy and examine the link to transportation infrastructure.

Other Current Initiatives

The Oregon Freight Plan includes strategies that address consideration of freight improvements in system plans with the intent to improve supply chain performance and the need to increase modal alternatives on key freight corridors. Increase in modal alternatives encourages the development of carload, transload consolidation facilities where there is market support for such facilities.

ODOT should examine the *Connect*Oregon project criteria to support a diverse Oregon economy.

ODOT staff is working with the freight industry to develop a prioritized list of bottlenecks on highways and connections to other modal facilities; this includes looking at the last mile connection for freight.



Implementation Considerations Matrix

Overview

The matrix on the following pages summarizes ODOT's role, as well as its presumed level of effort in implementing each of the 18 strategies in the STS. It also identifies other leaders (i.e. federal, state, and local government, and the private sector) important in STS implementation, as well as some potential challenges. While the individual strategy summary sheets provide additional detail, this matrix offers a quick reference to some important considerations ODOT may examine further as it moves forward with implementing the STS.

KEY

Level of Effort:

○	Low
◒	Medium
●	High

Note: The level of effort indicated for each strategy in the matrix below represents the estimated level of effort, which may change depending on the specific action taken.

Challenges:

$	Funding
⚖	May require legislative leadership or initiative

Strategies	Plan, Invest, and/or Build	Develop Statewide Policies	Partner with Other Leaders	ODOT Presumed Level of Effort	Other Leaders	Challenges	Notes
	ODOT Role						
Strategy 1 – More Efficient, Lower-Emission Vehicles and Engines: Transition to lower emission and fuel-efficient vehicles, enhanced engine technologies, and efficient vehicle design.	✓		✓	○	Federal, State, Local, Private	$ 	Driven by private innovation; Requires new technology and infrastructure; Consider incentive funding; Long term potential tax structure changes
Strategy 2 – Cleaner Fuels: Support the development and use of cleaner fuels, including reduction of the carbon intensity of fuels.	✓		✓	○	Federal, State, Local, Private	$ 	Driven by private innovation; Requires new technology and infrastructure; Consider incentive funding
Strategy 3 – Operations and Technology: Enhance fuel efficiency and system investments, and reduce emissions by fully optimizing the transportation system through operations and technology.	✓	✓	✓	◒	Federal, State, Local, Private	$ 	Private innovation; Requires new technology and infrastructure; Federal aviation leadership and funding needed
Strategy 4 – Airport Terminal Access: Increase efficiency in all airport terminal access activities, including shifting to low and zero emission vehicles and modes for passengers, employees, and vendors.			✓	○	Federal, State, Local, Private	$	May require new technology and infrastructure; Lack of sustainable funding; Consider incentive funding
Strategy 5 – Parking Management – Promote better management and use of parking in urban areas to support compact, mixed-use development and use of other modes, including transit, walking, and bicycling.			✓	◒	Local		Continue support of local planning efforts; When state highway is impacted ensure that through traffic is not unnecessarily impeded
Strategy 6 – Road System Growth: Design road expansions to be consistent with the objectives for reducing future GHG emissions by light duty vehicles.		✓		○	Federal, Local		Policies in the OTP and OHP support road system growth only after considering other approaches; Lack of sustainable funding; Federal or state legislature sometimes direct funds

Strategies	Plan, Invest, and/or Build	Develop Statewide Policies	Partner with Other Leaders	ODOT Presumed Level of Effort	Other Leaders	Challenges	Notes
	ODOT Role						
Strategy 7 – Transportation Demand Management: Support and implement technologies and programs that manage demand and make it easier for people to choose transportation options.		✓	✓	◒	Local, Private	$	Lack of sustainable funding; Private sector may invest in incentives and the development of conferencing sites; Oregon Transportation Options plan is in development
Strategy 8 – Intercity Passenger Growth and Improvements: Promote investment in intercity public transportation infrastructure and operations to provide more transportation options that are performance and cost competitive.	✓	✓	✓	●	Federal, Local, Private	$	Lack of sustainable funding; Much of infrastructure in private ownership; Oregon Rail Plan is in development
Strategy 9 – Intracity Transit Growth and Improvements: Investing in public transportation infrastructure and operations to provide more transportation options and help reduce single-occupant vehicle travel.	✓	✓	✓	●	Federal, State, Local, Private	$	Lack of sustainable funding; An update of the Oregon Public Transportation Plan is needed
Strategy 10 – Bicycle and Pedestrian Network Growth: Encourage local trips, totaling twenty miles or less round trip, to shift from single-occupant vehicle to bicycle, walking, or other zero emissions modes.	✓	✓	✓	◒	Local	$	Oregon Bicycle and Pedestrian Plan is in development; Lack of sustainable funding
Strategy 11 – Carsharing: Enhance the availability of carsharing (short-term self-service vehicle rental and/or peer-to-peer) programs to reduce the need for households to own multiple vehicles and to reduce household vehicle miles traveled.			✓	○	Local, Private		Probably led by private enterprise

Strategies	Plan, Invest, and/or Build	Develop Statewide Policies	Partner with Other Leaders	ODOT Presumed Level of Effort	Other Leaders	Challenges	Notes
	ODOT Role						
Strategy 12 – More Efficient Freight Modes: For the commodities and goods where low carbon modes are a viable option, encourage a greater proportion of goods to be shipped by rail, water, and pipeline modes.	✓	✓	✓	○	Federal, Private	$	Lack of sustainable funding; Much of infrastructure in private ownership
Strategy 13 – Compact, Mixed-Use Development: Promote compact, mixed-use development to reduce travel distances, facilitate use of zero or low energy modes (e.g. bicycling and walking) and transit, and enhance transportation options.		✓	✓	○	State, Local		Ongoing effort, led by local governments; Requires funding to provide transportation options
Strategy 14 – Urban Growth Boundaries: Create full service healthy urban areas to accommodate most expected population within existing Urban Growth Boundaries (UGB) through infill and redevelopment.			✓	○	State, Local		Local governments control land uses; LCDC acknowledges
Strategy 15 - More Efficient Industrial Land Uses: Encourage and incentivize more efficient use of industrial land through closer proximity of shipper and receivers, consolidate distribution centers, and better access to low carbon freight modes.			✓	○	State, Local, Private	$	Lack of sustainable funding for infrastructure; Consider incentive funding; Local government controls land use; Private investment needed for consolidation centers
Strategy 16 – Funding Sources: Move to a more sustainable funding source that covers the revenue needed to maintain and operate the transportation system and accounts for the true cost of travel.	✓	✓	✓	●	Federal, State, Local	⚖	Changing user fee structure is a long term effort; Foundational work is underway

Strategies	Plan, Invest, and/or Build	Develop Statewide Policies	Partner with Other Leaders	ODOT Presumed Level of Effort	Other Leads	Challenges	Notes
	ODOT Role						
Strategy 17 - Pay-As-You-Drive Insurance: Promote Pay-As-You-Drive insurance programs that allow drivers to pay per-mile premiums, encouraging less driving through insurance savings.			✓	○	State, Private		Currently an option of some insurers; If Oregon decided to require insurance companies to provide this option, it would likely require legislative direction
Strategy 18 - Encourage a Continued Diversification of Oregon's Economy: Maintain economic prosperity through an increase in the value per ton ("value density") of goods produced in the state, which is projected to reduce shipping costs and GHG emissions from any given level of economic output.			✓	○	State, Private	$	Multimodal funding for infrastructure development may be needed

Economic Considerations:

Statewide Transportation Strategy (STS)
Short-Term Implementation Plan

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Economic Considerations of the STS

Overview

This paper evaluates how the programs identified in the *Statewide Transportation Strategy (STS) Short-Term Implementation Plan* may individually and cumulatively impact the state's economy. In addition to these individual evaluations, this paper outlines some potential economic benefits of the STS and describes some basic economic concepts that apply to understanding all of the potential economic impacts from STS implementation. Furthermore, it outlines how ODOT may conduct more rigorous economic impact analyses if or when specific STS programs with the potential for significant economic impacts are closer to implementation.

This paper does not consider the costs and benefits of reduced greenhouse gas (GHG) emissions on climate change, sea level rise, and other impacts from decreased GHG outputs as a result of implementing these STS programs. These are excluded for two reasons: first, the state of Oregon and the transportation sector cannot address a global issue like climate change without the support of other states, economic sectors, and nations. Second, the economic benefits from the slowing of climate change would accrue beyond the 20 to 30 year horizon applied to most economic impact analyses.

The exemption of climate change benefits does not diminish the potential for significant economic benefits produced for the state by the STS programs. These "co-benefits" (i.e., benefits in addition to the primary benefit of reducing GHG emissions) occur because the actions within each program may improve the efficiency of Oregon's households and productivity of its businesses. The following example of linked outcomes provides an example of how a specific STS action produces economic benefits independent of the long-term benefits of climate change abatement:

1. An action such as the expansion of ODOT's traffic incident management program will reduce congestion on the roadways where it is deployed;

2. Reduced congestion will in turn reduce commute time for workers;

3. Reduced commute time in turn increases the number of workers available to employers within a certain commute shed;

4. This larger pool of labor improves the likelihood that employers can match worker skills to jobs;

5. Better worker matching increases the productivity of businesses;

6. Higher productivity makes a business more competitive relative to its rivals outside the region and thus increases that business's market share;

7. A larger market share stimulates that business's hiring and output (i.e., direct effects);

8. Increased output leads this business to purchase more inputs, both raw materials and services, which increase employment and output for this business's suppliers (i.e., indirect effects); and,

9. This cumulative expansion increases workers wages, who spend these additional wages and stimulate additional economic activity (i.e., induced effects).

Conversely, there is also the potential for significant economic cost for the state and for individuals or businesses associated with ongoing implementation of the STS programs. Thus, the net impact of these co-benefits depends on their timing, the cost of an STS action, and how this cost is paid. The timing matters because a dollar of benefit that is realized ten years in the future is worth less than a dollar of cost incurred now. The cost matters because the cost of implementing a particular program or strategy may exceed the value of the benefit.

Finally, the source of funding matters because general taxes impose burdens across all households and businesses regardless of whether they receive any benefit from the strategy. User fees, on the other hand, may be designed and implemented to impose the cost directly on those who benefit. Using the above example of the STS action to expand ODOT's traffic incident management program (TIMP), if the TIMP is paid for with tolls on the roadway segment where the TIMP is deployed, the commuter who benefits pays directly for the TIMP. This direct link between the value of each STS action and the price charged to the beneficiaries creates a marketplace, where the STS actions that confer the most value on users can be most easily funded by "capturing" that value and charging the beneficiaries through user fees.

Determining the net economic benefits of the STS programs will ultimately require a quantitative economic impact analysis. A robust analysis of each program entails first calculating the direct impacts of each action in each program, which will require knowing much more about the specific locations where each action is deployed and its particular characteristics or technical specifications. These direct impacts, together with the costs of implementing and maintaining each action, and the sources of revenue for paying these costs, are then input into an economic model that determines how firms will change their production of goods and services and how households change their work and consumption. The aggregation of all these changes across Oregon's population provides a quantified estimate of the change in the state's economic performance compared to if the STS actions were not implemented.

The *STS Short-Term Implementation Plan* does not include the level of detail required for a quantitative economic impact analysis of the type described above. Nevertheless, the actions in each program provide sufficient information to conduct a qualitative assessment of how individual actions or a program as a whole will likely cause direct impacts to household and businesses, and how these in turn will cause economic impacts.

Discussion of Economic Concepts

Before delving into the potential economic impacts of the individual STS programs, this overview describes three simple economic concepts that may apply across all of the STS programs and explain how they may impact the state's economic performance.

Market failures and regulation: Mainstream economics embrace the concept that free markets produce more efficient outcomes and more economic growth than highly regulated markets. Nevertheless, most free markets suffer from imperfections which diminish their efficiency. The market for auto travel, for example, suffers significant lost efficiency because of congestion. Congestion occurs when individual drivers are not deterred from entering a freeway when it has reached its carrying capacity. The lack of sufficiently strong deterrents to those last few drivers that bring an almost saturated roadway to a state of gridlock would be what economists would call a "market failure." Ramp metering or peak period tolling are examples of regulations that can remedy this failure. The challenge for regulators, and the most common reason businesses contend that many regulations harm a market rather than help it, involve poorly designed regulations. These either do not remedy the real imperfections, are applied too weakly or aggressively, or both.

Market formation and barriers to entry: Another closely held belief of efficient markets is that the private sector will provide the appropriate type and amount of goods and services when there is sufficient demand. The flip side of this belief reasons that public investments intended to create a market are likely to merely use taxpayer money to create a market that is either not viable or, if viable, would have been created without public investment. Well-functioning economies, however, exhibit many examples of viable and important private sector industries that would not have been created without significant public investment. Air travel, for example, would not exist as we know it without heavy public investment in airports, air traffic control systems, safety oversight, security, etc. While private industry can now provide some of these public sector investments, the formation and dramatic growth of the air travel market depended heavily on these public sector investments in very large capital infrastructure projects.

Related but somewhat different is the effect that initial impediments or "barriers to entry" have on formation of markets that could be profitable to business and provide a valuable service or good to the consumer. One current example is the role of the public sector in creating a larger network of charging stations for electric vehicles (EV). The private sector has heretofore generally avoided making large investments in electric charging stations because they perceive too much uncertainty in the EV market and therefore too much risk to warrant the capital investment. Public sector investment (whether direct or in the form of an industry subsidy) is required to create an economic environment in which the various players will step forward and make the investment decisions that eventually lead to a functioning market that does not require ongoing subsidy. In this example, with publicly-funded expansion of the electric charging network, consumers have one fewer reason to avoid purchasing an EV (i.e., limited range because there are not enough places to recharge along the highway) so EV sales increase. Auto manufacturers see less risk in

producing a larger volume of EVs, and eventually there becomes enough EV ownership that sufficient demand for charging stations emerges to support a for-profit industry.

Short versus long term impacts: Among the concerns businesses and residents may hold about the potential adverse economic impacts of STS strategies, many may be best understood by separating these impacts into short-term versus long-term, and small versus large businesses. Many STS strategies would likely result in immediate or short-term changes in business practices or personal consumption that may be disruptive or expensive, and that may reduce the competitiveness of some in-state businesses. As businesses and households adapt to the STS programs, these short-term impacts will give way to long-term impacts that may often be smaller, larger, or work in the opposite direction. Small businesses are less able to weather short-term costs and disruptions than larger and multi-state firms. Understanding the differences and magnitudes of short versus long-term impacts provides policymakers with the opportunity to adjust the speed and scale of implementing STS actions such that these short-term adverse impacts may be mitigated for the most vulnerable households and businesses.

Evaluation of STS Short-Term Implementation Plan Programs

In the following evaluations of the STS programs[1], the general economic concepts presented above are applied to each program's likely economic impacts. These program summaries provide qualitative descriptions of the likely economic impacts, and include the following three parts:

- **Program Actions and Their Intended Economic Remedies:** This part provides a list of the program's specific actions and summarizes their attributes which have direct relevance to understanding their potential impacts to the State's economy.

- **Direct and Potential Costs:** Direct costs are defined here as the amount of funding needed to launch and sustain an action. The potential costs are monetary and non-monetary burdens that may cause economic harm to Oregon businesses or households.

- **Potential Economic Co-benefits:** Co-benefits are benefits in addition to the primary benefit of reducing GHG emissions.

Our summaries of each program's economic impact avoids speculating whether a "net present value" analysis would determine if the aggregate benefits over time will exceed the aggregate costs. Such quantitative findings require analytical rigor well beyond the scope of this overview. As already noted above, such analysis would also require more detailed specification of the STS actions and costs. Nevertheless, efforts were made to determine the timeframe for potential benefits and costs.

[1] For more information on these programs, please refer to the STS Short-Term Implementation Plan.

Program 1: Electric Vehicles and Low Emission Fuels

Program Actions and Their Intended Economic Remedies

Overall, this program's actions attempt to remedy *market formation and barriers to entry* and *short versus long term impacts*. Many state and metropolitan regions have determined that electric vehicles (EV) sales are impeded most significantly by the lack of an extensive network of electrical charging stations akin to the abundance of gas stations. Industry experts and academic analysis have identified the significant risks and large upfront investment costs of developing the recharging network as the major obstacle. Nevertheless, Oregon has roughly 500 charging stations at the present time and will add more. Other obstacles include the higher cost of EV (i.e., a barrier to entry to the consumer), uncertainty in the volatile price trends for gasoline, natural gas, and electricity (i.e., short versus long term impacts), and to a much lesser degree the lack of standards for recharging equipment and technology (an investment risk factor that impedes market formation.) The ten actions intended to address these challenges involve the following:

1. Develop communication materials that highlight the benefits of alternative fuel vehicles, including EV, and create maps and other resources that identify the state's existing EV charging network.

2. Expand communication efforts that promote EV tourism activities in Oregon.

3. Through the Transportation and Growth Management (TGM) Program, collaborate with the Oregon Department of Land Conservation and Development (DLCD) and explore ways to incorporate EV charging stations, natural gas, biogas, and other alternative fueling facilities, as primary and/or accessory land uses, in model code modules.

4. Explore funding opportunities for implementing a pilot program focused on wireless EV charging stations.

5. Partner with the members of the Energize Oregon Coalition and pursue funding for innovative projects, such as studying the feasibility of implementing smart grid initiatives, which allow for the two-way communication between providers and consumers of electricity.

6. Continue to participate in the West Coast Green Highway Initiative.

7. Administer $4,000,000 in federal Congestion Mitigation Air Quality funds, approved by the Oregon Transportation Commission in September 2013, to encourage the use of natural gas as a transportation fuel by supporting the installation of natural gas fueling stations.

8. Provide data, technical information, and assistance to the Oregon Department of Energy (ODOE) to study the feasibility of incentivizing the purchase of cleaner, more fuel-efficient vehicles, such as electric, CNG, propane, and hybrid vehicles.

9. Participate and provide expertise to the Oregon Department of Environmental Quality's (ODEQ) efforts to promote Clean Fuels as a member of the Interagency Low Carbon Fuel Committee.

10. Provide technical assistance to the Legislative Revenue Office in the preparation of reports on the feasibility of a statewide fee or tax on GHG emissions, required per SB 306 (2013).

Direct and Potential Costs

Assuming that funds will not need to be increased to cover the implementation and/or the maintenance and operation costs, the *economic* cost of launching and sustaining the three communication actions may be described as either: 1) the *opportunity* cost of not spending these funds on the next best alternatives or 2) the repeal of these funding sources and returning them to the taxpayers. A quantitative economic impact analysis would create two alternatives, a *next-best* scenario and a *no-project* scenario, and then compare the outcomes of all three to estimate the differences, with all other conditions held constant.

There are two potential economic costs expected of this program. The first involves the potential impact on transportation funding. Unless the State amends its fuel tax statutes or replaces them with a mileage-based fee, the substitution of gasoline with lower-taxed alternative fuels will accelerate the current decline in fuel tax revenue. The further loss of transportation funding will exacerbate the state-of-good-repair for Oregon's roadways and defund some economically positive investments. In addition, there is the potential that either the loss of transportation revenue or redirecting existing expenditures will reduce funding for other programs that assist low income households, thus having an adverse impact on equity. While equity impacts (i.e., the potential redistributive effects of an action) are not economic impacts *per se*, the possibility that STS actions might adversely impact some groups more than others, and particularly those groups protected by law, was a frequently-heard concern in the STS outreach efforts.

The second potential economic cost, i.e., foregone opportunity to repeal and rebate existing taxes, seems small and unlikely. The economic harm would be caused in the same way only in the reverse of the benefit described in the Overview with the example involving expansion of ODOT's traffic incident management program. In that example, the STS action reduces congestion.

While not an economic impact, another potential impact of any strategy that accelerates conversion to electric-powered vehicles is the prospect of further environmental impact (including GHG emissions) from generation of electricity from fossil fuels. This economic assessment, like the STS itself, assumes that the power generation industry will also be motivated or required to achieve significant reductions in GHG emission. Thus, the increase in future electricity demand for transportation will not result in an offsetting increase in GHG emissions from the power sector.

Potential Economic Co-Benefits

The most obvious positive economic impacts of this program will involve the benefits to Oregon's electric power generation industry. Benefits will also accrue to those industries that produce and distribute alternative fuels, but only to the degree that the alternative fuel industries are not the same ones that produce and distribute gasoline and diesel transportation fuels. The magnitude of this economic benefit depends on the amount of in-state industry activity that is linked to electric power and alternative fuels, compared to the petroleum production and distribution and the manufacturing and repair of gasoline versus electric and alternative-fueled vehicles. Given that Oregon's electric power industry produces surplus power but the state has no domestic oil or gas production, this program may stimulate significant economic benefits for the state. Finally, households that own an EV may have lower lifecycle vehicle costs depending on the costs of fossil fuel and the premium paid for electric and alternative fueled vehicles.

Program 2: Eco-Driving

Program Actions and Their Intended Economic Remedies

From an economic perspective, this program is intended to address specific inefficient driving habits that result in more fuel consumed than is necessary. This program seeks to change these habits with four actions which focus on education. ODOT is currently developing and distributing educational materials and collaborating on research with academic institutions to measure the effectiveness of current education. The STS includes the following four actions which will expand on the existing educational programs:

1. Launch deployment of ODOT eco-driving educational efforts, leveraging partnerships and funding where possible.

2. Explore developing an eco-driving certification program for transit operators, commercial fleets, and freight carriers.

3. Identify opportunities for strategic partnerships and for working with the private sector to promote technologies that support eco-driving, such as in-car displays regarding fuel efficiency.

Two of these three actions involve state government or local agencies appealing to the driver directly. Action 3 proposes to partner with private industry. The evidence supporting all of these actions indicates that the demand for additional education is insufficient to entice the private market to provide these expanded services.

Direct and Potential Costs

Only one potential economic cost of this program is expected. As would be the case for Program 1, Program 2's deliberate intent to reduce fuel consumption, unintentionally

reduces transportation funding. Unless these funds are replaced, the further loss of transportation funding will exacerbate underinvestment in maintenance and repair of the state's existing transportation infrastructure, and/or curtail cost-effective capital projects. These deficiencies retard economic growth by raising operating costs for motorists and/or allowing congestion to increase.

Unlike Program 1, which stimulates replacement of petroleum fuels with electric and alternative fuels, this program will simply reduce fuel consumption per mile, and possibly in total. In order to understand all sides of the potential economic impact from decreased petroleum fuel consumption, consideration needs to be given to the impacts on the state's petroleum businesses and workers. Each year, Oregonians spend more than $3 billion for petroleum products. Oregon has no primary oil refineries in the state, but the state's industry includes petroleum distributors in addition to businesses that are not impacted by less motor fuel consumption (e.g., lubricating oils, asphalt production, and asphalt roofing products). The state has over 140 businesses that distribute petroleum products throughout Oregon and about 1,800 fueling stations (in 2010) which employ more than 9,800 full- and part-time workers. If the STS eco-driving program is effective at reducing the amount of gasoline and diesel that households and trucking companies purchase, these jobs should be reduced proportionately, all other conditions held constant. As described below, however, new jobs should be created when household and business savings are reinvested into the state economy.

Potential Economic Co-Benefits

The potential economic benefits of this program are likely to be modest and involve both households and businesses. To the degree that significant numbers of household adopt aggressive eco-driving practices, these households will save on motor fuel expenditures and have additional disposable income. From an economic perspective, this substitution of fuel expenditures with other forms of household consumption has some likelihood of benefiting the state's economy. The amount of benefit depends on the local content (i.e., the amount of in-state value added) of the household's alternative consumption. If a family spends the money they save by eco-driving on Oregon-produced Pinot Noir, the state's economy grows. If they buy a tablet computer produced in China, then Oregon's economy does not benefit as much.

Trucking companies and transit operators that save fuel because their drivers are trained (and certified) will see their operating costs decrease. For private trucking, this cost savings will improve the competitiveness of these businesses and the truck-intensive businesses they serve, which in turn enables these businesses collectively to capture larger market share compared to their out-of-state rivals, and to increase their output, hiring, and wages. The cost savings for transit operators will reduce their operating costs, which provides opportunities to expand service, invest in new equipment, raise wages, reduce the current operating subsidy, or lower passenger fares. Any of these outcomes stimulate the state's economy.

Program 3: Road User Charge Economic Analysis

The action of this Program is to conduct a rigorous economic analysis of the benefits and costs of a road user charge or vehicle miles traveled fee. This analysis will consider implementation costs, as well as social costs such as air pollution and greenhouse gas emissions. Because the proposed action is itself an economic analysis, no further assessment is provided here.

Program 4: Strategic Assessments and Scenario Planning

Program Actions and Their Intended Economic Remedies

The Program will direct ODOT's Transportation Development Division to work with metropolitan planning organizations (MPOs) and associated jurisdictions on Strategic Assessments and scenario planning efforts, providing technical assistance and negotiating financial support. ODOT will collaborate with the Department of Land Conservation and Development (DLCD) to provide this technical and financial assistance to regional and local agencies and engage with stakeholders. This program, under the requirements of HB 2001, will improve the integration of land use and transportation planning processes to achieve statewide GHG emission targets and will support voluntary efforts that help to advance the STS vision.

Strategic Assessments are designed to assess the potential outcomes in a metropolitan area assuming current trends continue and adopted plans are implemented. These assessments, together with the technical and financial support provided by ODOT and DLCD, help the MPO identify potential actions (investments, programs, etc.) that best meet identified community goals; they represent the first step in a scenario planning process. The amount of support for individual assessments is generally low, but the uncertainty of Strategic Assessments that focus on STS outcomes, and the potential for stakeholder concerns, present potential complexities that could challenge MPOs in ways that require more than ODOT and DLCD can provide given current funding levels and staff resources.

Direct and Potential Costs and Benefits

The technical and financial support provided by Program 4 are very unlikely to cause significant economic benefits or costs. One purpose of the Strategic Assessments themselves is to determine potential regional impacts (i.e., benefits and costs) of actions that include GHG reduction efforts. The likely economic impacts from STS program implementation depends on each regional economy's unique industry mix, land use, fiscal health and other market and socioeconomic conditions. Although the integration of STS policies into Strategic Assessments and regional scenario planning efforts will likely produce economic costs and benefits, the specific net economic impacts on households and businesses for any given region cannot be identified in advance of the scenario planning activities themselves.

Program 5: Intelligent Transportation Systems (ITS)

Program Actions and Their Intended Economic Remedies

This program supports ODOT's numerous, ongoing ITS initiatives. ITS applies technology and software to improve roadway operations and management, which in turn reduces congestion and GHG emissions, and improves safety. Most if not all states and many metropolitan regions are increasing their deployment of ITS investments as a cost-effective alternative to major capital expansion of the roadway system. Nevertheless, there are valid arguments that the pace of ITS investment and the deployment of promising emerging technologies lags behind the economic case for more rapid and comprehensive strategies for reducing congestion and improving travel reliability, which are both directly linked to economic growth. The seven actions intended to address these challenges involve the following:

1. Plan for the expansion of variable speed projects across the state by identifying opportunities, assessing feasibility, and determining priorities.

2. Develop communication materials that educate drivers on the benefits of variable speed limits.

3. Plan for the expansion of adaptive signal control technologies by identifying opportunities, assessing feasibility, and determining priorities across the state.

4. Develop a TripCheck smart phone application to provide improved access to traveler information while traveling.

5. Work with the Governor's Office, Oregon Solutions, and Traffic Incident Management stakeholder groups to strengthen interagency coordination related to highway incident management.

6. Work with the Oregon State Police to expand the Oregon Interoperability Server use, which allows for the electronic exchange of data among the ODOT, Oregon State Police, and 911 dispatch systems.

7. Improve awareness of Oregon's "move it" law which requires drivers of vehicles involved in a crash to remove their vehicle from the travel lane if it is operable.

Direct and Potential Costs

As a general rule, ITS actions that improve the operational efficiency of an existing roadway or interchange/intersection are some of the most cost-effective investments for improving travel time reliability and reducing recurrent congestion, and often represent a more cost-effective approach to achieving more capacity than physical system expansion.

Potential Economic Co-Benefits

The potential economic benefits of this program could be substantial depending on how well the ITS actions reduce crashes and recurrent congestion, and improve travel time reliability. Of the three direct benefits, the improvement to travel time reliability (through reduction of non-recurrent delay) would likely generate the most substantial economic benefits because of the disparities in the value between different trip purposes. In terms of economic impact, "on-the-clock" travel has much more impact on industry productivity than the other trip purposes such as commute, shop, school, social, or tourism. The majority of on-the-clock travel involves goods movement, and the benefits of reliable travel time for this trip purpose have grown exponentially as just-in-time inventory (JIT) control has spread from manufacturing and warehousing to most major retail operations. Unexpected delays caused by accidents, road or interchange closures, and inclement weather can inflict major disruptions on business operations. Shippers frequently are forced to buffer their schedules with significant additional travel time to ensure on-time deliveries, resulting in lost efficiency. In addition, more reliable travel times allow local distributors to serve the same demand with fewer routes and trucks and their customers can manage their inventories more efficiently.

The potential for ITS actions to reduce daily congestion (i.e., recurrent delay) would provide substantial economic benefits to Oregon employers, especially those reliant on knowledge workers. Less congestion for commuters creates a larger pool for labor which employers can recruit from within a given commute shed (e.g., a maximum of 40 minutes). This larger and often more diverse access to labor increases the quality of employment-worker matches. As the pool of accessible labor grows, odds increase that firms will find a good fit for their specialized skill needs. Good matches lead to higher productivity because they are more efficient and productivity drives economic expansion.

Program 6: Transportation Planning and Project Selection

Program Actions and Their Intended Economic Remedies

This program's actions attempt to ensure implementation of numerous STS strategies over time by influencing the direction of statewide policy and guidance documents. The Program's proposed actions are:

1. Consider the STS and work to move in the direction of the STS vision in all relevant statewide plans, plan updates, guidance documents, and policy documents such as, but not limited to:

    - Statewide Bicycle and Pedestrian Plan Update

    - Statewide Transportation Options Plan, including the development of an internal Transportation Options Program that focuses on agency operations and staff opportunities

- Statewide Rail Plan Update
- Statewide Public Transportation Plan Update
- Transportation System Plan Guidelines
- Least cost planning / Mosaic

2. Amend the Oregon Transportation Plan (OTP) to consider the STS, which is required in order to fulfill the STS legislative requirements of SB 1059 (2010). The amendment is likely to be minor, focused on the introductory language of Goal 4: Sustainability.

3. Consider the STS vision in the development of the 2017-2020 Statewide Transportation Improvement Program (STIP) through collaboration with the STIP Stakeholder Committee.

There are no direct economic impacts – i.e., neither significant benefits nor costs – associated with the long range planning activities this program would implement. However, these policy plans and documents should incorporate the STS vision within the overall future vision of the Oregon transportation system. The plans influence transportation funding decisions, which lead the state incrementally towards achievement of that vision. This program will embed STS strategies into the plans, policy documents, and guidelines so that statewide planning activities support STS strategies in general and will influence resource allocation decisions, project prioritization, and development approvals. While the integration of STS policies into the State's transportation plans will likely produce economic costs and benefits over time, the specific economic impacts on households and businesses cannot be identified in advance of the planning activities themselves.

Direct and Potential Costs and Benefits

The specific activity of incorporating STS provisions into policy, planning and guidance documents generates only small increments to the already-programmed costs of the various plan updates, and thus will not generate a meaningful economic cost. The potential downstream costs and benefits of actual plan implementation could be significant, but are impossible to determine quantitatively or even qualitatively until specific actions are selected for implementation within system plans or planning guidelines.

The potential for significant future economic costs depends on the aggressiveness with which ODOT, local jurisdictions, and other partners approach implementation. Typically, state and local plans and policies lay out guiding principles that result in criteria for prioritizing the expenditure of public funds. Local jurisdiction's transportation system plans can encourage specific patterns of development through project selection. The net impacts will likely depend on how well applications of Program 6 strategies remedy a market failure or help create new markets. For example:

- STS Strategy 8 targets improvements in intercity transit. Suppose the integration of the STS vision and goals into the Statewide Rail Plan and the Statewide Public Transportation Plan Updates leads to new intercity rail and transit service. The amount of benefit depends on how well this new or improved intercity mode provides a more effective option compared to the modes previously used by its new passengers, as well as how many new riders the service attracts. Additional benefits include the business generated for suppliers of transit vehicles, or commercial and retail service establishments that might locate around intermodal transit hubs served by the intercity modes. Potential costs include the loss of business to industries currently serving the intercity travel demand that has been diverted to this new mode. Passenger air travel in short-haul markets, for example, might be impacted by a diversion to intercity express bus or rail. Highway-oriented businesses such as restaurants, auto services, and lodgings might see a change in demand if any significant volume of long-distance auto travel was diverted to bus or rail. The net economic impact would be the value of the benefits minus the costs.

- Strategy 13 involves compact, mixed-use development. The integration of the STS vision provides more impetus and momentum for this strategy if the STS principles are articulated in both state and local bicycle and pedestrian plans and public transportation plans. To the extent that state policy favors higher-density residential and employment development, in conjunction with a complete streets approach to transportation infrastructure, there could be both economic benefits and costs to multiple parties. Short-term congestion costs might increase for those who continue to use private autos in dense locations, while accessibility benefits would increase for those who are able to take advantage of faster (in some cases) and lower cost modes such as cycling and transit. Over the longer term, the higher density of housing and its closer proximity to jobs (compared to a more sprawling residential land use pattern) will promote what economists call the economies of agglomeration. This effect involves placing a larger and potentially more diverse pool of labor nearer employers. These employers, all other conditions held constant, will enjoy higher productivity than their competition because they are more likely to find employees with the right skills (i.e., employee matching effects). Additionally, local jurisdictions could find that their cost per capita of building public infrastructure and delivering municipal services declines over the long-term as a result of higher density and closer proximity.

- Strategy 15 supports more efficient industrial land uses. Local transportation system plans and land use plans aligned with the STS recommendations might result in the creation of freight consolidation centers or eco-industrial parks, where shippers and producers enjoy close proximity to consumers, economies of agglomeration, and related benefits (STS elements 15.1 and 15.2.) Creation of more efficient freight distribution networks and corridors serving these centers (element 15.3) could prioritize freight movement over personal transportation in certain locations. These strategies could produce economic benefits such as faster and/or more reliable delivery times for shippers, but also higher congestion costs or reduced accessibility to operators of passenger vehicles. Determining the net economic impacts (i.e., benefits minus costs) requires quantitative analysis of specific investments and regulations that might be necessary to bring about the change in investment and system utilization.

These examples show how Program #6, by promoting the integration of the STS vision and goals into the State's planning activities, could accelerate or catalyze economic benefits and costs. To the extent the STS strategies help to achieve core OTP goals, such as improved accessibility, mobility, and operational efficiency, then Program #6 should ultimately contribute to reduced transportation costs (per capita or per unit of economic output) and overall improvement in the State's economic position.

Program 7: Stakeholder Coordination

This program directs ODOT to monitor and provide information about initiatives that align with the STS, and to pursue external and internal coordination to ensure efficiencies, remove redundancies, and identify leveraging opportunities where appropriate. Neither the proposed actions of this program nor the intended outcome of those actions (i.e., improved efficiency and leverage of time and money invested) are expected to generate economic costs or benefits.

Conclusion

Over the course of developing the STS and the *STS Short-Term Implementation Plan* some stakeholders expressed concerns regarding the potential economic impacts of implementing the STS vision. This paper aims to address some of those concerns. Furthermore, as ODOT moves forward with STS implementation, including the implementation of short-term actions and the development of future implementation plans, ODOT it is committed to a transparent process and ongoing stakeholder engagement, and will consider opportunities for more in-depth economic analysis.

Oregon
John A. Kitzhaber, M.D., Governor

Department of Land Conservation and Development
635 Capitol Street NE, Suite 150
Salem, Oregon 97301-2540
Phone: (503) 373-0050
Fax: (503) 378-5518
www.oregon.gov/LCD

January 22, 2014

Matthew Garrett, Director
Oregon Department of Transportation
Transportation Building
Salem, Oregon 97301

RE: PROPOSED STATEWIDE TRANSPORTATION STRATEGY (STS) SHORT TERM IMPLEMENTATION PLAN

Dear Matt:

We appreciate the opportunity to provide comments and suggestions on the proposed STS Short-Term Implementation Plan (STIP). We support the STS and the effort to develop a short-term implementation plan to move it forward. Our comments here are intended to help make implementation plan successful. In general, we believe that the implementation plan will be more likely to succeed if it includes more more detailed guidance about how the strategies, actions and program identified in the STS will be "considered" - especially as ODOT updates long-range transportation plans and studies. Our suggestions here reflect comments that we provided in a meeting with your staff in August 2013.

The Statewide Transportation Strategy (STS) is an important policy initiative for our state. It outlines a comprehensive set of actions that, in combination, would enable Oregon to significantly reduce greenhouse gas emissions from the transportation sector. And, it would do so in a way that makes Oregonians and Oregon communities better off: through reduced spending on transportation and energy, through improved public health and other benefits. While the STS shows that past and current land use and transportation planning efforts have already helped reduce emissions, it is also clear that substantial new and expanded efforts will be needed to build communities and provide transportation options that reduce the need for driving and support efforts to reduce emissions. These include:

- Doubling or tripling amount of transit service in larger urban areas
- Increasing percentage of walk, bike and other trips
- 50% increase in amount of walkable, compact development
- Increased infill and redevelopment
- Increased parking management
- New and expanded transportation demand management programs

As you know, while the STS identifies a set of strategies, actions and outcomes that will be needed, it does not formally adopt any of the identified strategies. Instead, the STS indicates that the individual strategies, actions and programs identified in the STS should be studied further. The short-term Implementation Plan (STIP) is the key next step in outlining how ODOT will move forward with actions identified in the STS. In short, the short-term implementation plan is critical to realizing the potential benefits identified in the STS. We've reviewed the draft implementation plan and suggest that additional direction and clarification be provided to assure that strategies identified in the STS will be thoroughly studied, evaluated – and, where appropriate, adopted– as ODOT develops and updates long-range transportation plans.

We have specific suggestions for rewording Program #6 - Transportation Planning and Project Selection, and Program #7 - Stakeholder Coordination.

Program #6: Transportation Planning and Project Selection.

The implementation plan should be revised to make it clear that strategies, actions and programs identified in the STS will be studied, evaluated – and as appropriate adopted – as long-range transportation plan updates and studies are conducted, including state-supported updates to local and regional transportation plans.

The development and update of long-range plans and studies is a critical opportunity to consider and evaluate strategies identified in the STS. The plans that we develop over the next five years will decide the kind of transportation system we need through 2035 or 2040. Consequently, it's essential that plans we prepare over the next five years fully explore and, as appropriate, adopt strategies set forth in the STS. If not, a key opportunity will be lost.

We believe more directive language is needed to assure the STS is successfully implemented. The current proposed *actions* for this program call for ODOT to: "consider the STS and move in the direction of the STS vision in all relevant statewide plans, plan updates, guidance documents as and policy documents…"

The proposed action can and should say more about how the STS will be "considered" in planning projects. We recommend revise the "Actions" discussion for Program #6 to include the following:

Planning projects, including plan updates and ODOT-supported local and regional transportation planning should, as appropriate, evaluate implementation of actions called for in the STS. In general:

- Project goals and objectives should include reducing greenhouse gas emissions consistent with the trajectories set forth in the STS
- Planning analysis should estimate greenhouse gas emission levels expected to result from the proposed plan or action
- Plans should identify and evaluate at least one alternative that would carry out relevant actions or outcomes identified in the STS

Program #7 Stakeholder Coordination

ODOT or the OTC should appoint an STS Implementation committee to advise the agency as it carries out the short-term implementation plan. The committee could also assist in tracking progress in carrying out the plan, and help ODOT staff to develop mid and long term implementation plans for the STS. One option to accomplish this would be to reconstitute the STS Policy Committee.

We note that the STS was developed with assistance and guidance from a policy committee composed of key policy makers representing a broad range of stakeholders and agency interests. We believe this group made a significant contribution to the quality of the STS and that a similar group would be extremely helpful in guiding and assisting ODOT as it seeks to implement the STS and coordinate with affected groups.

We would welcome the opportunity to work with you and your staff to refine and implement the short-term implementation plan and to coordinate the development of the medium and long-term implementation plans with our agency programs, including our joint efforts as part of the Oregon Sustainable Transportation Initiative (OSTI) and the Transportation Growth Management (TGM) programs.

Sincerely,

Jim Rue
Director

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

Metro | *Making a great place*

February 14, 2014

Oregon Transportation Commission
355 Capitol Street NE, MS #11
Salem, OR 97301-3871

Dear Commissioners,

At our February 13, 2014 meeting, the Metro Joint Policy Advisory Committee on Transportation (JPACT) unanimously adopted a motion directing that a letter be sent to the Oregon Transportation Commission asking the Commission to direct ODOT staff to work with local agency staff to strengthen the Short-Term Implementation Plan for the Oregon Statewide Transportation Strategy (STS) for reducing greenhouse gas emissions.

JPACT is a 17-member committee of elected officials and representatives of agencies involved in transportation in the three-county Portland metropolitan region.

We appreciate the good work your staff have done on both the STS Vision and the Short-Term Implementation Plan, and would appreciate the opportunity to collaborate to identify and prioritize ODOT's short-term actions likely to result in near-term reductions in transportation-related greenhouse gas emissions. In addition, we recommend that you direct your staff to also seek input from relevant statewide stakeholder advisory committees, including groups organized to advise the OTC and ODOT on the Oregon Bicycle and Pedestrian Plan, the Statewide Transportation Improvement Program, the Oregon Public Transit Program and the Oregon Transportation Options Plan.

As our region nears completion of the state mandated and ODOT-supported Climate Smart Communities effort, it is clear that our ability to successfully meet the state targets is directly linked to successful state action and leadership. We would welcome the opportunity to work with you and your staff to refine the short-term implementation plan.

Thank you for your consideration.

Sincerely,

Craig Dirksen
Chair, Joint Policy Advisory Committee on Transportation
Metro Council District 3

cc: Matt Garrett, ODOT
Amanda Pietz, ODOT
Jason Tell, ODOT
Karmen Fore, Governor's Office

January 24, 2014

Oregon Transportation Commission
355 Capitol Street NE, MS #11
Salem, OR 97301-3871

Dear Commissioners,

At your February meeting, ODOT staff will share with you a Short-Term Implementation Plan for the Statewide Transportation Strategy (STS). The STS lays out the actions needed to reduce Oregon's greenhouse gas emissions (GHGs) to safer levels and to demonstrate leadership in protecting the planet and its people from the severe consequences of climate change. It is a visionary plan and one that, if implemented in a timely fashion, will result in a number of co-benefits for Oregonians, including a more efficient and less costly transportation system, cleaner air, protected natural resources, and improved public health.

We helped develop the STS by serving on the Policy Advisory Committee and are writing you today to ask that you request from ODOT a Short-Term Implementation Plan that will move the ball faster. We recognize that the actions laid out in the STS are not ODOT's responsibility alone, that it will take multiple partnerships, and that policy change will largely be driven by concerned advocates, but we feel the Short-Term Implementation Plan is less aggressive in its recommendations than either the STS or the challenge of meeting adopted state GHG goals warrant. We appreciate that ODOT staff do not want to appear as overly directive, but we are concerned that the Plan will not, in its current form, result in the action needed to achieve the goals of the STS.

Below are suggested areas for improvement.

<u>Program #1: Electric Vehicles and Low Emission Fuels</u>

ODOT states that its level of effort will be "low to moderate." We strongly urge a "high" level of effort to properly reflect current and needed future levels of effort, to wit: ODOT has a Chief Electric Vehicle Officer; ODOT signed an MOU with the Governor's office and Drive Oregon committing to leadership on electric vehicle adoption[1]; ODOT has committed to co-chair the statewide Energize Oregon Coalition; ODOT has committed to serving as the primary state point of contact on EV issues for external and internal stakeholders.

[1] Also, EV vehicle and infrastructure deployment in Oregon was a priority recommendation in both the Governor's Ten Year Energy Strategy and the OGWC unanimously-adopted Roadmap to 2020, products to which ODOT was party.

The Federal Highway Administration has approved spending of several million dollars to support this transportation electrification strategy, including a range of public education and research and demonstration projects. We applaud ODOT for securing this funding and urge the Commission and Department to continue to aggressively compete for federal funding to advance this and other STS strategies.

In addition to wireless charging and smart grid pilots, ODOT's role should include support for other innovative projects including smart grid EV integration, ITS related to EVs, rural areas charging station deployment, urban areas charging infrastructure deployment (including regulatory tools that can assure pre-wiring public garages and other infrastructure glidepaths), local way-finding, and other EV signage, etc.

To achieve the very challenging targets in the STS (e.g., by 2050, EVs/PHEVs constitute over 50% of the operating light duty vehicle fleet), ODOT should be prepared to act, as needed, either as participant or as convener of the many parties whose contributions – investment, regulatory and marketing – will be required to reach the goal.

Finally, ODOT is not just a "participant" in the Green Highway, but a driver of it; the MOU it signed commits to "continued deployment," which rightly suggests additional installations of charging and other further work.

Program #2: Eco-Driving

We suggest an additional action: Incorporation of eco-driving into driver education programs and drivers license testing, making it a requirement that private or public providers of drivers education embed eco-driving tips into their educational programs.

One additional note related to this strategy: In reviewing the "Economic Considerations: Statewide Transportation Strategy Short-Term Implementation Plan" prepared by Cambridge Systematics, there's a discussion of how operational costs for drivers might be higher because of worse road conditions if there's less money to fix the roads due to people purchasing less gasoline. But there's no mention of the fact that there are also pocketbook savings for families that use less fuel. We are very cognizant of the fact that fuel-efficient vehicles and less driving means fewer gas tax revenues, but in many ways it's a false argument with regard to economic considerations given that there are other means to raise needed revenues.

Program #3: Road User Charge Economic Analysis

This analysis is needed and appropriate, but where is there mention in the Short-Term Implementation Plan of the need for funding for non-roadway modes? ODOT should put an equivalent amount of effort into exploring and promoting ways to fund non-roadway needs, with a committed, durable, long-term source of funding identified and adopted (or submitted for legislative action) by a certain date.

Program #4: Strategic Assessments and Scenario Planning

Scenario planning is a method, provided for in legislation, by which MPOs evaluate their current land use and transportation plans, as well as alternative scenarios for accomodating future growth, to see whether they reduce GHGs from the tranportation sector to meet state targets and if not, how those transportation and land use plans could achive the target. A major reason MPOs, other than Metro and Central Lane, have not fully embraced scenario planning is lack of funding.

We support ODOT's efforts to continue the momentum to reduce GHG emissions from vehicle driving through conducting "strategic assessments" in the non-Metro, non-Central Lane MPOs. Strategic assessments are "designed to assess the potential outcomes of a metropolitan area assuming current trends continue and adopted plans are implemented. Strategic Assessments also provide metropolitan areas the opportunity to look at what potential actions may help the MPO area reach identified community goals." Many of the MPOs likely have adopted, but not fully implemented, transportation and land use plans that, if implemented, would move them towards their GHG reduction targets. Therefore, we recommend that in this Short-Term Implementation Plan, ODOT:

- Conduct strategic assessments in every non-Metro, non-Central Lane MPO.
- Fund, or assist in finding funding for, the implementation of local transportation and land use plans and actions, including area specific plans (e.g., corridor plan, downtown plan) and mode plans (e.g., bike plan) that the strategic assessment indicates would significantly contribute to reaching that MPO's GHG reduction target.
- Incorporate scenario planning for GHG reduction into the local transportation system planning process

Program #5: Intelligent Transportation Systems (ITS)

Level of effort should be "moderate to high," again reflecting prioritization of near-term ITS deployment in recommendations from the Governor's Ten Year Energy Strategy and the Oregon Global Warming Commission Roadmap to 2020. While ITS is generally thought of in terms of highway operational efficiency and congestion management, both these outcomes can also have significant least-cost energy and carbon efficiency consequences. ODOT should be simultaneously tracking the rapid evolution of ITS technologies around the globe, and regularly refreshing its ITS demonstration and deployment strategies for Oregon (including integration of traveler information and system operations applications). An ongoing working group that might include industry, technology consultants, OTREC, and local government transportation planning and operations staff, together with ODOT staff, could be assembled to be responsible for managing this ongoing effort.

ODOT, in collaboration with local governments, should be aggressively competing for federal demonstration and deployment funding (e.g., integrating ITS with congestion pricing strategies).

In at least some aspects of ITS deployment, Oregon should be leading, not just adopting best practices developed elsewhere. ODOT should have in place metrics to track ITS contributions to priority outcomes (e.g., throughput, incidents, vehicle operations efficiency), and be using these to determine how best to deploy different ITS tools, and combinations of tools, in addressing the range of operational challenges within the system.

Program #6: Transportation Planning and Project Selection

The language under the first action, "Consider the STS and work to move in the direction of the STS vision in all relevant statewide plans…" is extremely weak and communicates what we assume is a misleading description of ODOT's commitment to achieving state GHG goals along with the ancillary operational, safety and health benefits of realizing STS outcomes. In reality, the goals of the STS will never be achieved if the plans that are the real drivers of transportation policy and investment in the state do not incorporate GHG-reduction goals and strategies. We strongly urge this action to be reworded to say, "Incorporate GHG-reduction goals and strategies into all relevant statewide plans…..utilizing the goals and actions outlined in the Statewide Transportation Strategy."

Another suggested action would be for ODOT to better educate legislators and other transportation decision-makers about its major improvement approach and how it selects projects for the STIP. Many decision-makers do not understand the STIP criteria or Oregon Highway Plan Action 1G, which says we must prioritize investments in the following way: 1) protect the existing system, 2) improve efficiency and capacity of existing highway facilities, 3) add capacity to the existing system, and 4) add new facilities to the system.

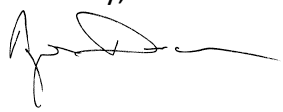
If the MOSAIC planning tool develops as ODOT and stakeholders hope and anticipate, it can be an extremely useful framing tool for describing costs, benefits and tradeoffs of different scenario plans. It will allow ODOT and local planners, if they choose, to identify optimum corridor solutions that also make essential contributions to STS and Oregon GHG reductions. ODOT should, as soon as possible after successful beta testing is completed, enable MOSAIC analysis of all significant transportation investment decisions that involve ODOT funding in a material way (understanding that MOSAIC is intended to illuminate tradeoffs, not dictate outcomes).

Program #7: Stakeholder Coordination

A suggested action here would be for ODOT to commission an evaluation of the overlap in transit-related services around the state to see where efficiencies might be achieved. This is something that former transportation commissioner Gail Achterman was very keen on: the idea of looking at everything from transit districts to school bus routes to how vets get to the VA Hospital. The potential for linkages and efficiencies is there if entities were willing to coordinate.

ODOT staff put a great deal of effort into the development of the STS, and we believe they are firmly supportive of its goals, as you are. We hope you will ensure these goals are realized by prompting a stronger Short-Term Implementation Plan. Time is running out to avert the worst impacts of climate change. It is incumbent upon us all to be responsible for our own actions and to push for action on the part of others. Thank you for your consideration.

Sincerely,



Angus Duncan
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cc:
Matt Garrett, ODOT
Amanda Pietz, ODOT
Jerri Bohard, ODOT
Karmen Fore, Governor's Office

TRIMET

February 18, 2014

Oregon Transportation Commission
355 Capitol Street NE, MS #11
Salem, OR 97301-3871

Dear Commissioners,

At your February meeting, ODOT staff will share with you a Short-Term Implementation Plan for the Statewide Transportation Strategy (STS). We certainly support the strategies noted, but suggest you request that ODOT staff identify stronger near-term actions to achieve the STS Vision for walkable, mixed use communities with safe and attractive access to greatly expanded public transportation service.

As you know, the STS lays out the actions needed to reduce Oregon's greenhouse gas emissions (GHGs) from transportation and land use to protect the planet and its people from the severe consequences of climate change. The draft Short-Term Implementation Plan only addresses transit through an update to the Oregon Public Transportation Plan (OPTP), currently scheduled for 2016, noting "it will discuss the public transportation service needs for communities of various sizes, and consider different funding mechanisms. Through statewide plan updates, ODOT may also consider ways to couple transit services with parking pricing."

With development of a balanced transportation funding package under consideration for the 2015 Legislature, it is important that ODOT work rapidly to identify additional near-term actions it can take to advance the STS Vision in line with previously adopted policies of the Oregon Transportation Plan (OTP). In advancing Strategies 9 and 13, the STS builds upon OTP Policies 1.2 and 4.3 and supporting strategies, respectively, in identifying the need to ensure that Oregonians throughout the state live in communities with pedestrian and bicycle facilities providing access to more frequent and reliable transit.

The Governor's 10 Year Energy Action Plan identifies that the State will advance an investment package that includes increased funding for bicycle and pedestrian infrastructure and transit operations and capital, while also committing that the OTC will update the OTP and OPTP to reflect the need for multi-modal, mixed use development and complete streets at both the state and local level. As such, it would seem your short-term STS strategies should include concrete actions to plan for and fund the types of access and operational improvements on ODOT facilities that make transit safer and more reliable, while working with other jurisdictional partners to do the same on their facilities. This means prioritizing investments in sidewalks, safe crossings and bicycling facilities that improve access to transit, as well as transit signal priority, queue jump lanes and other roadway treatments that support efficient and reliable transit operations. We also look forward to working with you on crafting a multi-modal package for the 2015 Legislature to consider, as well as the 2016 update of the OPTP.

The STS is a visionary plan and one that, if implemented in a timely fashion, will result in a number of benefits for Oregonians, including a more efficient and less costly transportation system, cleaner air, and improved public health. I look forward to working with you to begin implementation of that vision.

Sincerely,

Neil McFarlane
General Manager

C: Matt Garrett, ODOT; Karmen Fore, Governor's Office

Attachment.

ATTACHMENT

STS Strategies referenced:

Strategy 9 – Intracity Transit Growth and Improvements
Investing in public transportation infrastructure and operations to provide more transportation options and help reduce single-occupant vehicle travel.

- Increased service levels in the Portland metropolitan area similar to that of the current San Francisco/ Oakland urbanized area.

Strategy 13 – Compact, Mixed-Use Development
Promote compact, mixed-use development to reduce travel distances, facilitate use of zero or low energy modes (e.g., bicycling and walking) and transit, and enhance transportation options.

OTP Policies referenced:

Policy 1.2 – Equity, Efficiency and Travel Choices
It is the policy of the State of Oregon to promote a transportation system with multiple travel choices that are easy to use, reliable, cost-effective and accessible to all potential users, including the transportation disadvantaged.

Strategy 1.2.1
Develop and promote inter and intra-city public transportation.

Policy 4.3 – Creating Communities
It is the policy of the State of Oregon to increase access to goods and services and promote health by encouraging development of compact communities and neighborhoods that integrate residential, commercial and employment land uses to help make shorter trips, transit, walking and bicycling feasible. Integrate features that support the use of transportation choices.

Strategy 4.3.1
Support the sustainable development of land with a mix of uses and a range of densities, land use intensities and transportation options in order to increase the efficiency of the transportation system. Support travel options that allow individuals to reduce vehicle use.

Strategy 4.3.2
Promote safe and convenient bicycling and walking networks in communities.

- Fill in missing gaps in sidewalk and bikeway networks, especially to important community destinations such as schools, shopping areas, parks, medical facilities and transit facilities.
- Enhance walking, bicycling and connections to public transit through appropriate community and main street design.
- Promote facility designs that encourage walking and biking.

Strategy 4.3.3
Promote location-efficient incentives in Oregon to help increase the opportunities for individuals and families to purchase homes and businesses within areas well-served by transit.

Strategy 4.3.4
Promote transportation facility design, including context sensitive design, which fits the physical setting, serves and responds to the scenic, aesthetic, historic and environmental resources, and maintains safety and mobility.

Strategy 4.3.5
Reduce transportation barriers to daily activities for those who rely on walking, biking, rideshare, car-sharing and public transportation by providing:

- Access to public transportation and the knowledge of how to use it.
- Facility designs that consider the needs of the mobility-challenged including seniors, people with disabilities, children and non-English speaking populations.

Strategy 4.3.6
Consider the proximity and availability of public transportation when siting public facilities and services.

MPAC Worksheet

Agenda Item Title: Climate Smart Communities Scenarios Project: Community-Based Approaches to Shaping the Future of Transit

Presenter(s): Craig Prosser, TriMet Board and Tom Mills and Steve Kautz, TriMet Planning and Policy staff
Mayor Pete Truax, City of Forest Grove
Roger Sabrowski, Transportation Manager, Mary's Woods at Marylhurst
Linda Moholt, Executive Director, Tualatin Chamber of Commerce

Contact for this worksheet/presentation: Kim Ellis, Metro staff (kim.ellis@oregonmetro.gov)

Date of MPAC Meeting: February 26, 2014

Purpose/Objective
A panel of representatives from TriMet, Forest Grove, Lake Oswego and Tualatin will present information about innovative local and regional partnerships aimed at serving existing and future community transit needs. The partnerships to be highlighted include TriMet's work with communities to develop a Service Enhancement Plan for each part of the region and three different community shuttles that link to local destinations, such as schools and shopping, and TriMet routes that connect residents and employees to other parts of the region.

Action Requested/Outcome
MPAC members have an increased understanding of TriMet's Service Enhancement Plans and next steps, and the innovative partnerships that TriMet, businesses and community organizations have formed to create great communities and help reduce greenhouse emissions.

How does this issue affect local governments or citizens in the region?
The 2009 Oregon Legislature required the Portland metropolitan region to develop an approach to reduce per capita greenhouse gas emissions from cars and small trucks by 20 percent below 2005 levels by 2035. In 2014, the Climate Smart Communities Scenarios Project will engage community, business, public health and elected leaders in a discussion to shape a preferred approach that meets the state mandate and supports local and regional plans for downtowns, main streets and employment areas.

To help kick off the 2014 public engagement and upcoming MPAC and Joint Policy Advisory Committee on Transportation (JPACT) policy discussions, public and private sector leaders have been invited to showcase investments their organizations and communities are already making to build great communities and help reduce greenhouse gas emissions.

Improving transit service is already a key part of the region's approach:

- **TriMet's Service Enhancement Plans** will help define a roadmap for the future of transit that reflects the visions of communities in the region. TriMet is leading the development of the SEPs in collaboration with Metro, local governments, businesses and community members to plan improvements to service, stops and crossings in each community in the region. The Westside Service Enhancement Plan was completed in 2013; planning is underway in Southwest (Tigard, Tualatin, King City, Durham, Sherwood, West Linn and SW Portland) and the Eastside (East Portland, Gresham, Fairview, Wood Village and Troutdale). Future plans will focus on the other parts of Portland and Clackamas County.

- **GroveLink** provides free shuttle service for the Forest Grove community. Extending beyond TriMet's line 57, the GroveLink bus serves a greater part of the city, helping to link residents

with downtown locales as well as other parts of the region with TriMet bus line 57 and Ride Connection's Washington County Community Bus. Launched in 2013, the service is supported by RideConnection and a grant from TriMet.

- Mary's Woods at Marylhurst launched a free shuttle service - **Shuttle in the Woods** - in November 2013. The service connects Marylhurst University, Mary's Woods (a retirement community), the Youth Villages Christie Campus, the Lake Oswego Adult Community Center, and the transit centers in Lake Oswego and Oregon City. Shuttle in the Woods is a pilot program supported by a two-year grant from TriMet.

- The **Tualatin Shuttle** is a weekday service provided by the Tualatin Chamber of Commerce. The Chamber works with local employers to increase transportation options within the city and to decrease traffic congestion. Monday through Friday, the Tualatin Shuttle provides commuters a shuttle service between various TriMet stops, WES Commuter Rail and businesses in Tualatin. Shuttle hours are between 5:30 am to 10:00 am, and again from 2:15 pm to 6:30 pm. All remaining service is in the Tualatin area, providing commuters with a link between TriMet, downtown Tualatin and local businesses.

What has changed since MPAC last considered this issue/item?

- **The Joint Policy Advisory Committee on Transportation approved moving forward** with the eight-step process recommended for shaping and adopting the preferred approach in 2014. MPAC's approval on February 12 was unanimous. JPACT's approval was received on February 13. The Clackamas County representative on JPACT abstained, citing concerns raised by some members of the Clackamas County Board of Commissioners; all other JPACT members present voted in favor of moving forward.

- Metro Councilors and staff provided a **project update to the Land Conservation and Development Commission** on February 14. The commission gave strong support and praise for the significant technical, engagement and policy work completed to date. Members underscored the project's ongoing theme that planning for climate change and achieving broader community goals are not opposing objectives. The director of the Department of Land Conservation and Development (DLCD) strongly recommended that Metro engage now with the Governor's advisors to discuss how the project could inform priorities for the 2015 legislative session, particularly given the project's emphasis on investing in communities in combination with state actions related to cleaner fuels and fuel-efficient vehicles as the way to meet state climate goals and broader goals for clean air and water, healthy communities and a vibrant regional economy. The next LCDC briefing will be at the September 25-26 commission meeting. Commissioner Lidz (the LCDC liaison to the project) was also invited to attend the April 11 and May 30 joint MPAC/JPACT meetings.

What packet material do you plan to include electronically?

- TriMet Annual Report 2013 (2013)
- TriMet at-a-glance 2014 (Feb. 2014)
- Westside Service Enhancement Plan (Sept. 2013)
- Westside Service Enhancement Plan Concept Map (Sept. 2013)
- GroveLink Schedule
- Tualatin Shuttle Blue Line Schedule (Fall 2013)
- Mary's Woods at Marylhurst – Shuttle in the Woods (Nov. 2013)

TriMet At-a-Glance

We (really) get around.

Not only do more people ride transit here than in other metro areas our size, taking the bus or train has become part of our region's culture and identity.

- **Transit's big here.** Every weekday, Portland-area residents take more than 316,700 trips on TriMet to jobs, shopping, services and recreation.
- **More people ride TriMet** than any other transit system our size. We're the 24th largest U.S. metro area, but 11th in transit ridership (and 9th in ridership per capita).
- **TriMet is a lifeline** for people who can't drive due to age, income or a disability. Each year, 12 million rides are taken by seniors and people with disabilities who would otherwise be stuck at home.

100 million trips are taken on TriMet each year.

MAX carries nearly **1 in 3** Sunset/Banfield commuters at rush hour.

45% of Portland State students take transit to class.

"We located our business in Downtown Portland in part because of access to great public transit. It's a tremendously valuable benefit for recruiting and retention."

– Sam Blackman, CEO Elemental Technologies

Photo courtesy of GeekWire

Our economy depends on transit.

TriMet delivers workers to jobs, brings shoppers to businesses, and connects students to opportunity. When the economy dips, transit helps job-seekers get back to work. Plus, our transit service has helped make the Portland area a top tourist destination.

- **Transit = good jobs.** As of January 2014, the Portland-Milwaukie Light Rail Transit Project has created nearly 9,400 jobs in our region, with more to come.
- **Investing in our region.** Throughout the different stages of planning and constructing MAX and WES, TriMet has leveraged $2.33 billion in federal funds for the region.
- **MAX spurs development.** $11.5 billion in development has occurred within walking distance of MAX stations since the decision to build light rail in 1980.
- **Freight moves freely.** With less traffic congestion, freight can move more freely on our roads and highways.

Nearly **1,200** employer worksites offer transit passes as an employee benefit.

45% of rush-hour commuters going into Downtown Portland take transit.

Nearly **1 in 4** transit trips are for shopping and recreation.

"Our transportation options are part of what makes this place great."

Andy Duyck, Chairman, Washington County Board of Commissioners

Transit improves our quality of life.

Whether you ride or not, our entire community benefits from good transit. In addition to keeping people mobile, TriMet service protects our environment, takes cars off the road, and helps create vibrant, walkable neighborhoods.

- **There's less traffic.** We save on congestion costs, and our overall commute times are shorter here than in other metro areas.
- **We breathe easier.** With fewer cars on the road, the air in the Portland area is cleaner.
- **We're healthier.** Transit improves public health (and reduces associated costs) by encouraging walking and biking as part of riders' daily routine.
- **It's earth-friendly.** The more people ride, the less our carbon footprint and reliance on fossil fuels.

TriMet's MAX, WES and buses combined eliminate **207,750** daily car trips.

For each mile taken on TriMet, **57%** less carbon is emitted compared to driving alone.

Westside MAX can carry the equivalent of more than **2½** lanes of traffic on the Sunset Highway.

Who's on Board?

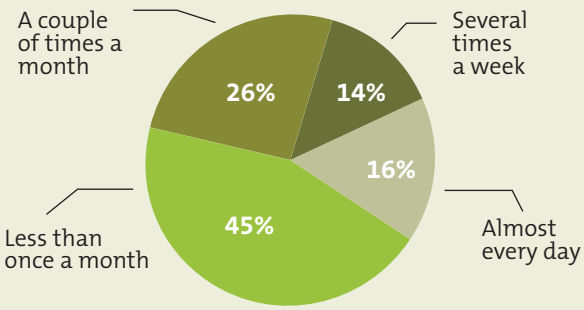
TriMet's ridership generally reflects the demographics of the Portland metro area. We serve all kinds of people, young and old, from all walks of life.

74% of adults in the region ride TriMet sometime during the year.

41% of adults in the region ride TriMet at least twice a month.

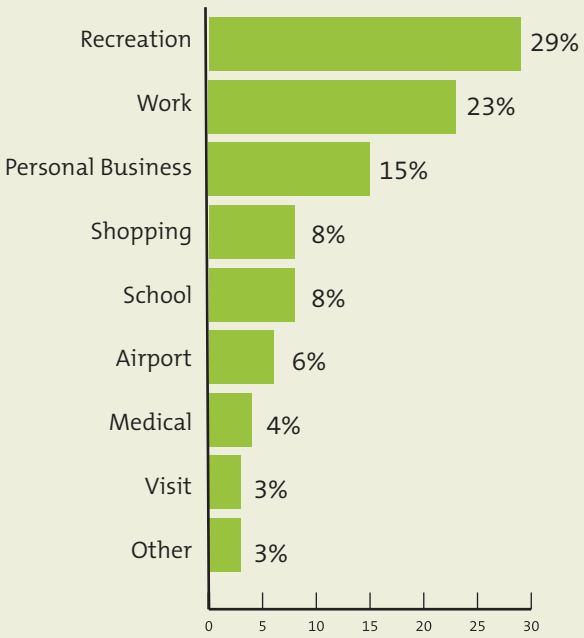
78% of our riders could drive but choose TriMet instead.

FREQUENCY OF USE



Source: TriMet Attitude & Awareness Study – November 2013

PRIMARY TRIP PURPOSE



Note: Totals may not add to 100% due to rounding.

Commuters, families, students, seniors, people with disabilities, shoppers, job-seekers, sight-seers... All kinds of people in our community depend on TriMet to get around.

Your Transit System At-a-Glance

TriMet provides bus, light rail and commuter rail transit services in the Portland, Oregon, metro area. We connect people with their community, while easing traffic congestion and reducing air pollution—making the Portland area a better place to live.

Service area: 532 square miles
Population: 1.5 million

BUSES

TriMet buses serve much of the Portland metro area. Many bus lines connect with MAX, WES and the Portland Streetcar.

- 79 bus lines
- 12 Frequent Service bus lines
- 6,742 bus stops
- 603 buses

FY13 ridership: 59.6 million trips

MAX LIGHT RAIL

MAX connects the communities of Beaverton, Clackamas, Gresham, Hillsboro and Portland, as well as Portland International Airport.

- 4 MAX lines
- 127 vehicles
- 87 stations
- 52 miles of track

FY13 ridership: 39.1 million trips

WES COMMUTER RAIL

WES Commuter Rail travels on existing freight tracks to serve the cities of Beaverton, Tigard, Tualatin and Wilsonville with weekday rush-hour service.

- 3 Diesel Multiple Units (DMUs) and 1 trailer
- 2 Rail Diesel Cars (RDCs)
- 5 stations
- 14.7 miles of track

FY13 ridership: 440,000 trips

LIFT PARATRANSIT SERVICE

Our LIFT Paratransit Service provides door-to-door service for people with disabilities who are unable to ride regular buses or trains.

- 253 LIFT buses
- 15 LIFT vans

FY13 ridership: 1 million trips

FARES

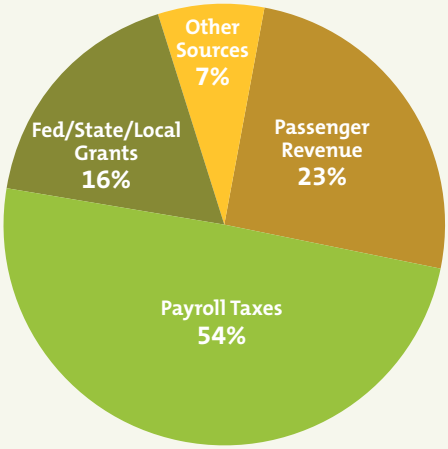
Fares are valid for travel on any combination of buses, MAX Light Rail, WES Commuter Rail and Portland Streetcar, anywhere TriMet goes.

	2-Hour Ticket	1-Day Pass
Adult	$2.50	$5
Honored Citizen	$1	$2
Youth	$1.65	$3.30
LIFT	$2.45	—

Funding & Budget

We are working hard to control costs and are developing a Strategic Financial Plan where we can add service, invest in the system and pay our obligations. However, we still face the fundamental budget challenge of large and increasing deficits starting in a few years if changes aren't made to our labor contract.

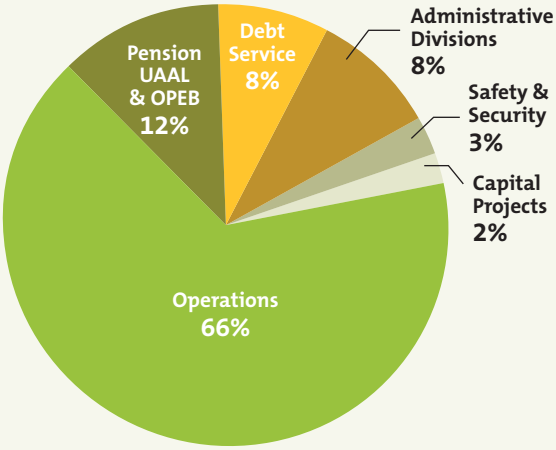
Where our money comes from



FY14 Budget Operating Revenue

We receive most of our funding from an employer payroll tax. Fares are another significant revenue source, making up 23% of our total funding.

Where our money goes

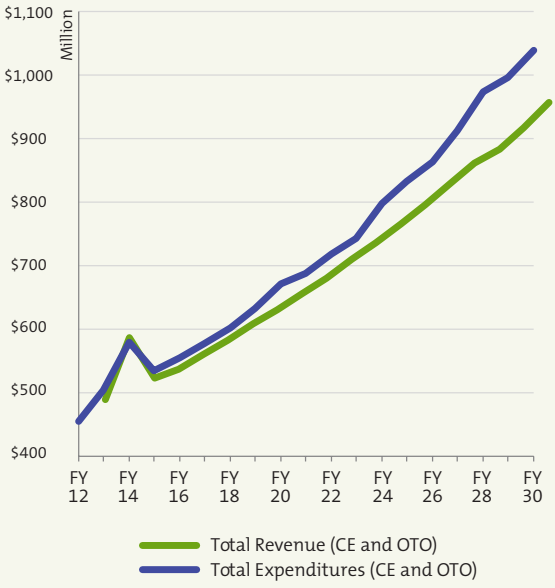


FY14 Budget Operating Expenses

Most of our expenses are associated with providing daily transit service. This includes everything from the tires on the bus to an employee's salary to paying the electricity bill for MAX.

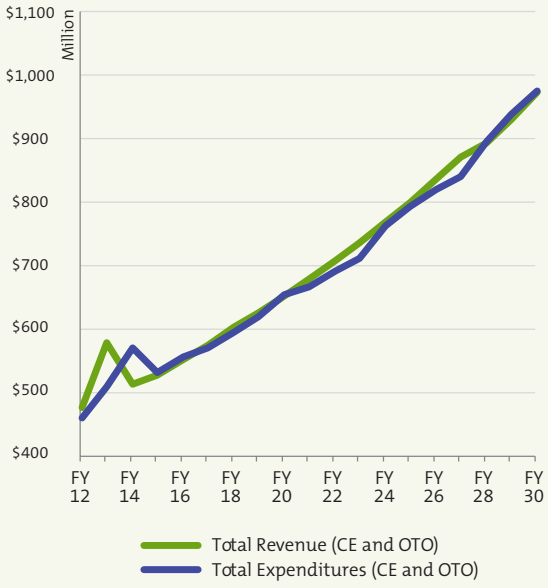
Total operating budget for Fiscal Year 2014: $489 million

Long-term financial outlook



Without Labor Contract Changes

Service cuts needed to balance budgets
FY16: 10%, FY20: 15%, FY25: 20%



With TriMet's Labor Contract Proposal

Corrects structural imbalance
Expenditure growth is sustainable

We ♥ Where We Live

The quality of life we enjoy here is hard to come by. Our proximity to the ocean and mountains, mild climate, lush greenery, great food and drink, arts scene, parks and public spaces, farmers markets, vibrant neighborhoods... Good transit is just one of many reasons to love where we live!

...and so does everyone else!

It's no wonder the Portland metro area is consistently ranked as one of the best places to live in the country.

#1 Public Transportation
Travel + Leisure Magazine, 2007-13

#1 Hot 2011 Travel Destinations
gogobot.com, 2012

#1 Most-Liked U.S. Cities
Money Journal, 2013

What makes this place great

#2 Best Cities to Live Car-Free
24/7 Wall St., 2011

#8 Smartest Cities in North America
Fast Company, 2013

#4 America's Healthiest Cities
Forbes Magazine, 2011

Transit Innovations

We're using technology to enhance the rider experience and improve efficiency.

MOBILE TICKETING

Our new TriMet Tickets app for Android and iPhone lets riders pay their fare instantly—anywhere, anytime. We were the first U.S. transit agency to offer mobile ticketing system-wide. *trimet.org/mobileticketing*

OPEN DATA

Back in 2005, we were the first in the world to release our schedule and arrival data to the public, which paved the way for Google Transit. Using our open data, independent software developers have created dozens of useful apps for riders. *trimet.org/apps*

REAL-TIME SERVICE INFORMATION

Riders can get a better idea when their ride is coming using TransitTracker™, our real-time arrival information system available by phone, web, text message and various smartphone apps. *trimet.org/transittracker*

NASCAR-INSPIRED COOLING SYSTEM

TriMet was the first transit agency in the nation to use NASCAR technology to electronically cool bus engines and increase fuel efficiency. This pioneering effort earned us a Clean Air Excellence Award from the U.S. Environmental Protection Agency. *trimet.org/newbuses*

REGENERATIVE BRAKING

In 2010, we installed new energy storage units on 20 of our MAX vehicles to capture and store the energy generated by the braking system. This innovation will save us up to $168,000 per year in energy costs.

RIDERS CLUB

TriMet Riders Club members get the latest rider news and have an opportunity to weigh in a variety of transit topics. (Plus, enter to win some great prizes!) Sign up today at *trimet.org/club.*

Down the Road

HOW WOULD YOU MAKE TRANSIT BETTER?

We want your input to help plan improvements to transit service, stops and crossings in your community. Between 2013 an 2015, TriMet is asking riders, residents, neighborhood groups, governments, schools and businesses for their feedback to create a long-term vision for transit service. Together, we will identify and prioritize bus service improvements and opportunities to improve pedestrian and bike access to transit. *trimet.org/future*

PORTLAND-MILWAUKIE LIGHT RAIL

Opening in 2015, the new MAX Orange Line, TriMet's fifth MAX line, will connect PSU and inner Southeast Portland to Milwaukie and Oak Grove in north Clackamas County. The project includes a first-of-its-kind transit bridge over the Willamette River in Downtown Portland. *trimet.org/pm*

ELECTRONIC FARES

We're planning a new, state-of-the-art electronic fare system that will make it faster, easier and more convenient to ride the bus or train. By 2017, you will be able to pay instantly with a fare card, debit/credit card or smartphone. Learn more at *trimet.org/efare*

POWELL-DIVISION CORRIDOR

Bus rapid transit (BRT) is currently being evaluated as a transit solution in the busy corridor that stretches from PSU and OHSU on the west side to Mount Hood Community College on the east. *oregonmetro.gov/powelldivision*

SOUTHWEST CORRIDOR

Light rail and bus rapid transit are two options being considered to improve transit in the corridor that runs north-south from Downtown Portland to Sherwood and east-west from Lake Oswego to Beaverton. *swcorridorplan.org*

TRIMET

2013 ANNUAL REPORT

AN UPDATE FOR OUR RIDERS AND THE COMMUNITY

Our vision

Do our part in making our community the best place to live in the country.

Our mission

Provide valued transit service that is safe, dependable and easy to use.

Our values

Do the right thing, by being responsive, inclusive and accountable.

From the GM

Dear riders and stakeholders,

Restoring TriMet's Frequent Service is the most meaningful investment we can make to improve our riders' experience. It means better access to jobs and education, shorter commute times and more time with family and friends.

I am pleased to report that 2013 brought positive news for riders, and even better news is in store for the coming year. The improving economy and our continued focus on controlling internal costs have allowed us to once again invest in service.

- ✓ **More reliable service:** In 2013, riders on nearly a third of our bus routes saw improvements, and we created a new bus line between Sherwood and Tigard. 2014 will include more investment—we are restoring 15-minute (or better) service from your morning commute through the evening rush hour on 10 Frequent Service bus lines.
- ✓ **More reliable vehicles:** New buses mean more reliable service and a more comfortable ride. We added 70 new buses to our fleet in 2013 and 90 more are coming in 2014. We also are investing in more rail maintenance to improve MAX reliability thanks to federal grants.
- ✓ **A transformative rail line:** The Portland-Milwaukie Light Rail Transit Project continues to transform Southeast Portland and North Clackamas County. New bridges, tracks, safer pedestrian crossings and bike paths are taking shape. The project also surpassed 8,600 construction-related jobs.
- ✓ **Continued innovation:** Our partnership with Portland startup GlobeSherpa produced a new mobile ticketing app for smartphones, giving riders another option to buy their fares. Riders responded with more than 50,000 downloads in just three months.

While 2013 was a year of progress, much work remains. Fully restoring Frequent Service, and adding new transit service, requires us to stay focused on our internal cost structure. I will continue to press this effort internally.

After all, TriMet is here to do its part to make our community the best place to live in the country. Our contributions are possible because of years of support and commitment to transit in this region. We don't take your support for granted. Thank you.

Sincerely,

Neil McFarlane, TriMet General Manager

Line 43, 12 and 17 Rider

Making Transit Better

See what we're doing to:

- **Improve efficiency** of our operations and administration
- Make our service more **cost-effective**
- Make smart investments to **reduce long-term costs**
- Make transit **easier and more appealing** for riders

FREQUENT SERVICE RESTORATION

In March 2014, buses on 10 of our popular Frequent Service lines will come more frequently during the day. Thanks to an improving budget outlook, we are happy to begin restoring 15-minute service—which had been cut over the last few years due to the recession—starting with mid-day hours on weekdays. For riders, this means less waiting, shorter travel times and better connections. Many of our mid-day riders depend solely on transit to get around, so we know that better frequency makes a big difference. The 12 Frequent Service lines carry 58% of all bus trips. As more resources become available, we will continue improving frequency on these lines.

MOBILE TICKETING

Our new TriMet Tickets app for Android and iPhone lets riders pay their fare instantly—anywhere, anytime. We were the first U.S. transit agency to offer mobile ticketing system-wide. As of January 2014, the app had been downloaded more than 60,000 times. *trimet.org/mobileticketing*

ARRIVAL SCREENS AT MAX STATIONS

We're investing in 59 digital information displays that will be installed at MAX stations throughout the system, to help provide more riders with timely service information. The new screens will be installed gradually throughout 2014 and 2015.

MAX BLUE LINE IMPROVEMENTS

Thanks to a "State of Good Repair" grant from the Federal Transit Administration, we're making needed improvements to MAX Blue Line stations on the East Side over the next few years. When it opened in 1986, the Blue Line was one of the first light rail systems in the country and has been a national model for nearly three decades. The upgrades will include lighting, pedestrian safety, rail crossings and sidewalks.

NEW BUS DISPATCH/TRACKING SYSTEM

In 2013, we switched to a new state-of-the-art Computer Aided Dispatch/Automatic Vehicle Location system ("CAD/AVL" for short). The new system improves bus tracking and performance monitoring. It also means more reliable arrival information from TransitTracker, as vehicle locations are now updated about every 30 seconds.

BETTER TICKET MACHINE RELIABILITY

In 2013, we focused on improving the reliability of our ticket vending machines. We replaced more than half of our 213 machines with brand new machines. We upgraded the software and updated our maintenance practices to speed up repairs and prevent breakdowns. We replaced the card readers so there are fewer instances of declined credit/debit cards, and we are upgrading the bill acceptors to reduce problems with rejected bills. As a result, overall reliability has improved—it's now consistently over 95%—and we've seen rider complaints drop by 50%.

NEW BUSES

After delaying new bus purchases for a few years due to the recession, we began actively replacing the oldest buses in our fleet in 2012. Not only are these aging buses uncomfortable for riders and operators, they have become too unreliable and expensive for us to maintain. We replaced 55 buses in 2012 and 70 more in 2013. Over the next three years, we'll replace another 184 buses. By 2016, the average age of our fleet will be the industry recommended standard of eight years.

Making Transit Better

SAFETY AND SECURITY

Security cameras: As of Fall 2013, all of our MAX stations now have security cameras, in addition to the cameras in place on all MAX trains and nearly 90 percent of buses. The cameras serve as a valuable tool to deter crime and to help locate, track and prosecute people who commit crimes on the transit system.

Response teams: Our Transit Police Division has developed a new approach to increasing security on and around the TriMet system. Their "Transit Response Teams" use plainclothes and undercover officers along with traditional uniformed officers to help deter criminal or inappropriate behavior on the transit system.

Crime: Preliminary statistics for 2013 show reported crimes on TriMet declining. There has been roughly a 30 percent decrease in overall reported crime.

Operator safety: We made a series of changes in 2013 to enhance safety for our operators. We added a security presence at layover locations near 92nd at Flavel Street and at Foster Street, installed a metal barrier under the MAX overpass at Flavel Street to block access to an illegal camping area, and conducted an evaluation on every operator restroom area to map out security upgrades that will be implemented in 2014.

Security missions: In 2013, we conducted a number of security campaigns and missions and adjusted the deployment of police and security officers to increase security presence and improve safety throughout the system. Campaigns included Operation Rail Safe, Operation Bus Safe and Visible Intermodal Prevention & Response (VIPR) operations, both independently and with Department of Homeland Security officers.

14,000+ members

RIDERS CLUB

TriMet Riders Club members get the latest rider news and have an opportunity to weigh in a variety of transit topics. (Plus, you can enter to win some great prizes!) Sign up today at *trimet.org/club*.

Our Financial Picture

STRENGTHENING OUR FINANCIAL FOUNDATION

We are working hard to control costs and develop a Strategic Financial Plan where we can add service, invest in the system, and pay our obligations. However, we still face the fundamental budget challenge of large and increasing deficits starting in a few years if changes aren't made to our union contract. The deficits are driven primarily by the costs of active and retiree health care benefits which are projected to nearly double over the next seven years (from $62 million today to $118 million in FY21), increasing to 25% of underlying payroll tax revenues by FY25 and 35% by FY30. TriMet is negotiating with the Amalgamated Transit Union Local 757 to make needed financial changes. Our proposed labor contract reduces the growth of these costs and results in sustainable spending without cutting essential services.

A FAIR LABOR CONTRACT FOR OUR FUTURE

We are currently in active negotiations with the Amalgamated Transit Union (ATU) over a new contract, and our discussions have been very informative and productive. The former contract expired November 30, 2012. Our proposal is meant to bring the labor contract more in line with what is seen in the market in terms of health care and hiring practices, while remaining fair to employees and retirees. If accepted by the union, it will put TriMet on a more stable financial foundation. Our proposal has 28 significant changes, including:

- moving ATU members to the same health care plan as non-union staff (an 80/20 plan where employees contribute 6 percent)
- eliminating retiree medical for new hires and those that have not vested (10 years) and reducing retiree medical subsidy of 50% for employee-only premium ending at age 65
- 2% annual wage increases for union employees during the term of the contract
- changing work rules so that managers can begin taking corrective action for attendance problems sooner, hire apprentices from outside TriMet, and occasionally hire journeyworkers from outside TriMet when apprentices are not yet ready to graduate

TriMet's proposal and all correspondence regarding the negotiations can be found at *trimet.org/newcontract*.

SECRETARY OF STATE'S AUDIT RESULTS

During 2013, at the direction of the Oregon Legislature, the Oregon Secretary of State conducted a six-month comprehensive and thorough review of TriMet's financial condition, transparency and operations. After reviewing hundreds of documents, auditors put forth 23 recommendations for the agency. The audit found that the most serious and looming concerns relate to the cost of health care benefits and the $852 million unfunded liability for retiree health care. The audit also acknowledged improvements the agency has undertaken and noted other areas for additional improvement. We welcomed the audit and will implement all of the recommendations as we focus on the delivery of safe and dependable service. The full audit can be found on TriMet's website at *trimet.org/audit*.

ACCOUNTABILITY CENTER

In November 2013, we launched a new Accountability Center at *trimet.org* to give you an easy way to find information about TriMet's performance, financials, policies, labor contract, meetings and more. We'll be adding more items to the page in the months ahead. You can sign up to receive updates by email when new items are added. *trimet.org/accountability*

Down the Road

HOW WOULD YOU MAKE TRANSIT BETTER?

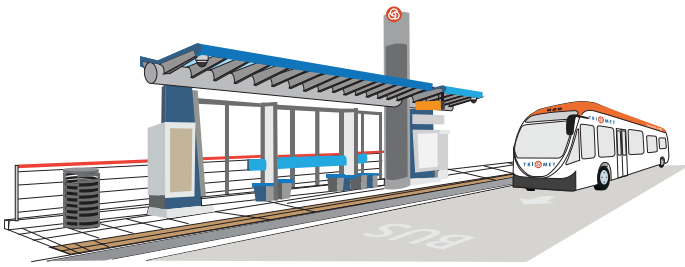
We want your input to help plan improvements to transit service, stops and crossings in your community. Between 2013 an 2015, TriMet and Metro are asking riders, residents, neighborhood groups, governments, schools and businesses for their feedback to create a long-term vision for transit service at the local level. Together, we will identify and prioritize opportunities to improve bus service and pedestrian/bike access to transit. Learn more at *trimet.org/future*

POWELL-DIVISION CORRIDOR

Bus rapid transit (BRT) is currently being evaluated as a transit solution in the busy corridor that stretches from Portland State University and OHSU on the west side to Mount Hood Community College on the east. At a minimum, buses would have transit signal priority and would serve only major stops instead of stopping every block. Buses could also have their own lanes and/or long, low-floor buses for greater capacity. *oregonmetro.gov/powelldivision*

SOUTHWEST CORRIDOR

Light rail and bus rapid transit are two options being considered to improve transit in the corridor that runs north-south from Downtown Portland to Sherwood and east-west from Lake Oswego to Beaverton. The



Southwest Corridor Plan, led by Metro, aims to improve quality of life in these fast-growing communities through shared investments in transit, roads, pedestrian/bike infrastructure, parks and natural areas. *swcorridorplan.org*

ELECTRONIC FARES

We're planning a new, state-of-the-art electronic fare system that will make it faster, easier and more convenient to ride the bus or train. Starting in 2017, riders will be able to pay instantly with a fare card, debit/credit card or smartphone. The e-fare system will offer lost-card protection and easy account management by phone, on the web or at area grocery/convenience stores. It will also feature daily and monthly pricing caps, which translates to free rides and savings for frequent riders. We expect the new system will also help reduce fare evasion, increase revenue, and reduce our costs associated with ticket vending machines, cash purchases and collection processing. *trimet.org/efare*

PORTLAND-MILWAUKIE LIGHT RAIL

Opening in 2015, the new MAX Orange Line, TriMet's fifth MAX line, will connect Portland State University and inner Southeast Portland to Milwaukie and Oak Grove in north Clackamas County. The project includes a first-of-its-kind transit bridge over the Willamette River in Downtown Portland (see below). As of January 2014, construction is 54% complete. *trimet.org/pm*

A NEW TRANSIT BRIDGE OVER THE WILLAMETTE

For the first time in 40 years, a new bridge will soon span the Willamette River in Downtown Portland. At more than 1,700 feet in length, the bridge will be the largest car-free transit bridge in the U.S., designed to carry light rail trains, buses, streetcars, cyclists and pedestrians. It will add capacity to the region's transportation system, with more light rail connections creating better access to important destinations and reducing commute pressure on other bridges. A name for the new bridge will be selected in May 2014. It will open in September 2015 along with the MAX Orange Line. *trimet.org/bridge*

We want your feedback

Do you have questions or comments
about the topics in this Annual Report?
We want to hear from you:

trimet.org/annualreport

Available in other formats

TRIMET

131324 • 4M • 2/2014

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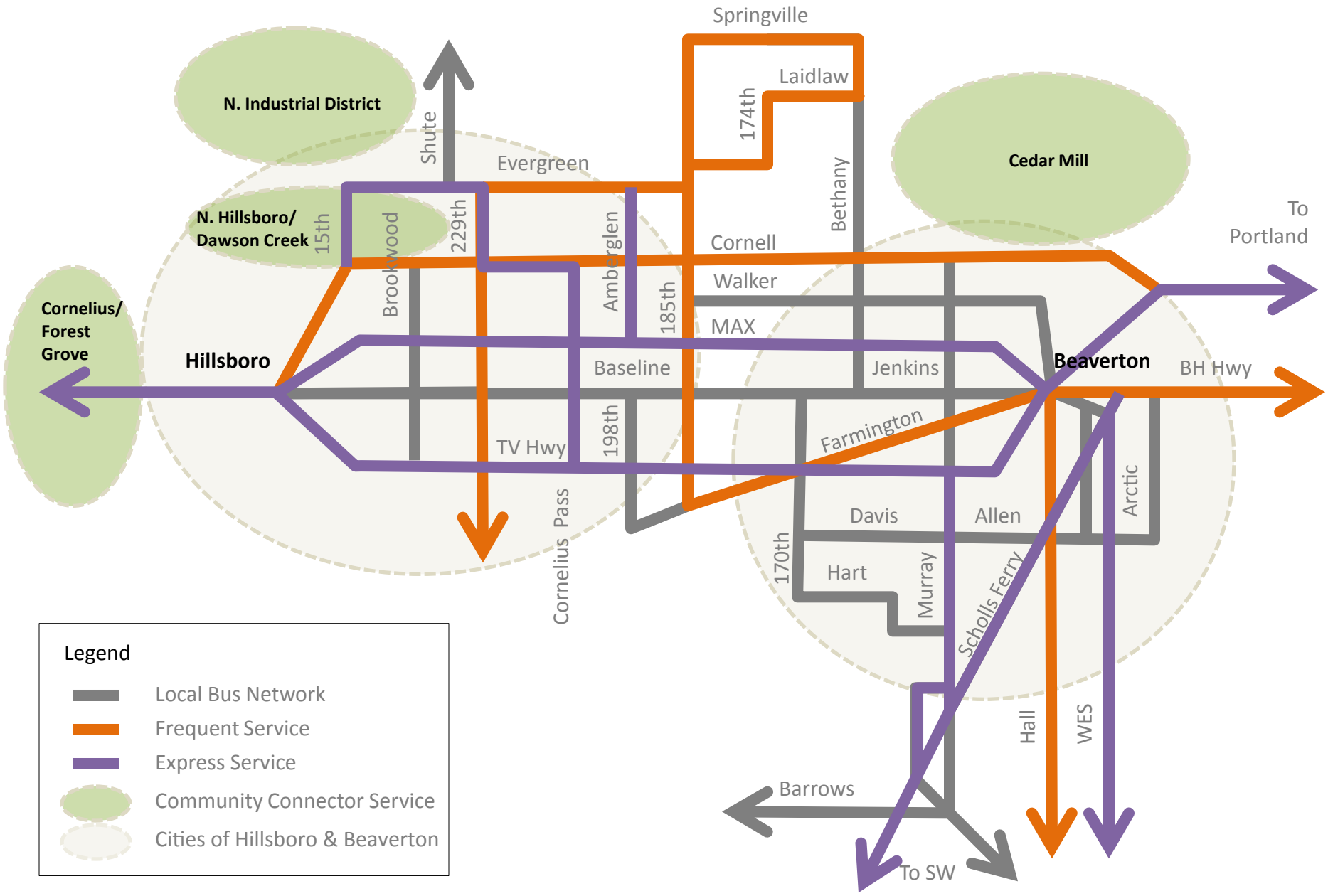
Cover: *This rendering provides a concept of how the Lincoln St/SW 3rd Ave MAX Station will look when the MAX Orange Line is in operation. The station will include an eco-track, vegetated trackway that helps with storm water treatment.*

Westside Service Enhancement Plan

Concept Map



Westside Service Enhancement Plan

TRIMET

A note from TriMet General Manager, **Neil McFarlane**

September, 2013

Dear Reader,

Do you wish the bus ran later or more frequently? Would you like a bus line to come closer your home? Would you like to take TriMet to work, school, appointments or recreation? These are the types of questions we asked when researching the Westside Service Enhancement Plan (WSEP)–our roadmap for future transit service investments in Beaverton, Hillsboro, Cornelius, Forest Grove and Washington County.

The WSEP is a proposal to improve transit connections between growth areas on the Westside. It proposes to improve service frequencies, a new approach to transit in difficult-to-serve areas, and calls for more sidewalks and safe crossings. The first improvements will occur this fall with route and frequency improvements on Line 47-Baseline/Evergreen and Line 48-Cornell.

But it is one thing to create a plan, and another to fully implement it. We cannot carry out this plan alone–it will take partnerships. Partnerships (with both private and public entities) are required to ensure that our customers can safely access bus stops using sidewalks and safe crossings, and that TriMet buses can move past traffic congestion with signal priority and bus lanes. Working together, we can create the total transit system.

And, the WSEP is just the beginning. This summer we launched a similar effort in Southwest (Tigard, Tualatin, King City, Durham, Sherwood, Lake Oswego, West Linn and SW Portland) and the Eastside (East Portland, Gresham, Fairview, Wood Village and Troutdale). Future plans will also focus on Portland and Clackamas County.

As you read through this plan, I hope you see your vision for TriMet service on the Westside, because it was your community that helped us create it.

Regards,

TriMet General Manager
Line 12, 17, 43 Rider

Westside Service Enhancement Plan

The Westside is leading Oregon out of the recession with corporate expansions, business recruitments, new neighborhood development, and surging enrollment at Portland Community College. With this growth, we're developing a plan to grow, too.

Rising employment: Westside employment is growing as companies like Intel, Nike and Kaiser Permanente expand operations, new tech companies arrive, and retail stores locate in the Westside shopping centers of Progress Ridge Townsquare, Cedar Mill Crossing and the Streets of Tanasbourne.

New and expanding neighborhoods: Tanasbourne, Orenco, Bethany, and Progress Ridge have seen significant residential and commercial growth in the past decade. New communities are being planned in North Bethany, South Hillsboro, Amber Glen and Northwest Forest Grove.

Swelling PCC enrollment: PCC Rock Creek has added 10,000 students in the last ten years and will remain an important piece of the Westside's economic future.

Infrastructure upgrades: Roads and sidewalks are being improved through the Major Streets Improvement Program (MSIP) and more upgrades are being planned for Aloha/Reedville and the Tualatin Valley Highway corridor.

The Westside Service Enhancement Plan outlines a future vision for transit in Beaverton, Hillsboro, Cornelius, Forest Grove and areas of Washington County, north of Scholls Ferry Rd. This vision was developed with the help of dozens of partners, public and private, around the Westside. The plan aligns future improvements with current and projected needs by recommending better transit connections, improved frequency, safer pedestrian facilities, and increased access to jobs and community services. The plan also highlights opportunities to partner with local jurisdictions and the private sector to make it easier for people to reach and use transit. The plan identifies:

- near-term service enhancements that can be made with little or no additional cost
- long-term service improvements and expansion when revenues allow
- opportunities for partnering with the public and private sectors to improve access to transit including walking and biking to bus, MAX and WES

TriMet's commitment to improved transit service on the Westside includes the restoration of Frequent Service on TV Highway and on the MAX Blue and Red lines as top priorities.

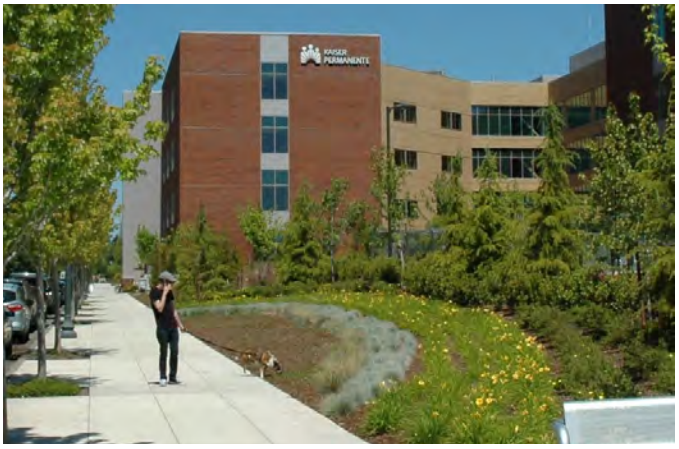
Westside Story

From Tualatin Valley Farms to Silicon Forest

Historically, agriculture was the primary economic force in the Tualatin Valley. Today, farmers still grow fruits, vegetables, nuts, grass seed, and Christmas trees in the valley, often exporting their products out of state and overseas. With numerous wineries and vineyards, the Tualatin Valley also plays an important role in the Oregon wine industry.

However, as new development arrives, so do new enterprises. Nicknamed 'The Silicon Forest', the Westside is now the center of the state's high-tech industry and home to hundreds of companies designing and manufacturing products ranging from computer chips (Intel, TriQuint), to solar panels (SolarWorld), to electron microscopes (FEI), and LCD monitors (Planar Systems). The Westside is also a hub for the region's sports and outdoor apparel industry (Nike, Columbia Sportswear). In addition, the area has thousands of entry-level customer service jobs such as call centers (Netflix,

Farmers Insurance), shopping centers (Cedar Mill Crossing, Progress Ridge Townsquare, Streets of Tanasbourne), and as of summer 2013, ballpark vendors (Hillsboro Hops).



Nonetheless, challenges to the area's transportation network come with the expansion of these industries. For example, Intel is in the midst of a $6 billion expansion of its Ronler Acres campus, Kaiser Permanente will soon open its new $344 million medical campus, and Nike is pursuing a $150 million expansion on its campus. All three developments will bring more traffic to the Westside. Though Intel and Nike operate shuttles to MAX, they will not be enough to stem the flow of traffic brought on by their growth. As these large employers grow, the public and private sectors must develop transportation solutions together–even looking to solutions sponsored by large employers in other metro areas, such as Microsoft and Google, which provide extensive, privately contracted transit services to their employees.

Newcomers drive housing growth

Large numbers of new residents are attracted to the Westside as employment opportunities grow. Between 1990 and 2010, Washington County's population grew by some 70 percent from 311,554 to 529,710, much of it on the Westside. The growth in population has resulted in new residential and commercial development. Recent housing development in the Bethany, North Hillsboro, Tanasbourne, Orenco, Progress Ridge, and Century Blvd. areas draw residents with a mix of incomes–high income earners to single family homes and low to middle income earners to apartments and townhomes. Meanwhile, established neighborhoods near the downtowns of Hillsboro and Beaverton, Aloha-Reedville and Cornelius attract middle income residents and seniors. Additionally, large-scale communities are being planned for South Hillsboro, North Bethany, AmberGlen, northwest Forest Grove, Barnes Rd., and South Cooper Mountain, much of it with retail businesses, services and housing within walking distance of each other. New apartments with ground floor retail are also rising in Downtown Hillsboro, hailing a new era of downtown living on the Westside.

Many newcomers arrive not only from out of state, but from overseas. This includes Spanish speaking workers in a variety of industries in Hillsboro, Cornelius, Forest Grove, and Aloha/Reedville and permanent and temporary high-tech employees from Asia and Europe living in Hillsboro, Beaverton, and Bethany. These new arrivals are part of the broad cultural diversity that now exists on the Westside.

PCC prepares the Westside for the future

Portland Community College's (PCC) Rock Creek and Willow Creek campuses are vital for workforce development on the Westside. With over 25,000 students, PCC offers a variety of programs that include technology and trades classes supported by Westside employers like SolarWorld, Genentech and Hillsboro Aviation. With PCC's enrollment growing by 10,000 students in ten years, new classes have been offered along MAX at Willow Creek and Pacific University in Downtown Hillsboro.

Taking the lead on infrastructure

With the growth and diversification of jobs and the robust workforce development efforts, the Westside has been transforming from an agricultural community to a major economic engine for both the region and the State of Oregon. As a result, roads that were initially used to transport agricultural products from farms to markets are now major thoroughfares supporting new urban developments. In response, the Westside jurisdictions are actively upgrading transportation infrastructure to keep up with the growth in population and jobs.

Washington County oversees and funds much of this effort through the Major Streets Improvement Program (MSTIP), a program funded by a county property tax levy dedicated to improving major roadways. Unique to the region, MSTIP improvements include repaving, road widening, sidewalks, crosswalks, bicycle lanes, and signals. Since its introduction, MSTIP has funded 111 projects worth $555 million. With this commitment to quality transportation facilities, Westside communities continue to plan for future infrastructure with recent planning processes for TV Highway, Aloha-Reedville and Downtown Beaverton.

Yet, despite these efforts, the Westside street network will always have the imprint of its farm to market road legacy. For example, a relatively small number of streets span the Westside while others lead to dead ends or rural, 2-lane roads. Additionally, there are large concentrations of jobs located in the north portion of the Westside along Highway 26 and housing located to the south and east. Consequently, traffic is funneled to a fairly small number of major streets, leading to significant congestion during peak travel times. Congestion and delay challenges TriMet's buses as well as other commercial and private vehicle drivers.

TriMet on the Westside

The region's transit past

Tualatin Valley Stages operated bus service to Beaverton, Hillsboro, Tigard, Tualatin, Forest Grove, Cedar Mill, Garden Home, and McMinnville from the 1930's through the 1960's. TriMet bought out Tualatin Valley Stages in 1970 when the company faced bankruptcy. As part of the buyout, TriMet acquired all routes, operators, maintenance workers, and equipment. Total weekday ridership on the lines averaged below 10,000 rides. TriMet has since maintained many of the same bus routes operated by Tualatin Valley Stages including bus routes on Beaverton-Hillsdale Highway, Cornell Rd., and TV Highway and added new ones as the region grew.

In the early-to mid-1980's TriMet built a series of transit centers and other transit facilities on the Westside and increased service on some bus lines. Bus lines were re-oriented to those transit centers to allow better travel within the Westside, not just to and from Portland.

Westside MAX: An economic game changer

The next major change to transit on the Westside came with the introduction of a new mode to the area: light rail. In September 1998, TriMet opened the 18-mile Westside MAX Blue Line extension between Downtown Portland and Downtown Hillsboro. The $963.5 million project includes 16 stations, 3,698 parking spaces located between Sunset Transit Center and Downtown Hillsboro and a three-mile-long tunnel through the west hills. It provided the first new transportation link across the west hills in more than a generation.

Westside MAX provides regional mobility for residents of all incomes and connects people to employment opportunities that may not otherwise exist. With more than $3.2 billion of development occurring within a 1/2 mile of the line, Westside

MAX has and continues to reshape development patterns–most prominently at Orenco Station, a model for semi-urban development. Westside bus service and WES commuter rail complement MAX by providing intra-county trips that connect with employment areas to the north and south of MAX.

Moving forward: TriMet in the new century

Since the opening of Westside MAX in 1998, TriMet has:

- Extended the MAX Red Line from Downtown Portland to Beaverton Transit Center, better connecting the Westside to Portland International Airport and increasing trips on MAX between Beaverton and Portland by 60%;
- Upgraded bus service on TV Highway between Forest Grove and Beaverton to Frequent Service running roughly every 15 minutes all day, seven days a week;
- Opened Oregon's only commuter rail line, the Westside Express Service (WES), running between Beaverton Transit Center and Wilsonville in partnership with Washington County, Beaverton, Tigard, Tualatin and Wilsonville;
- Maintained all Westside bus lines during 2009-2012 service cutbacks, finding cost efficiencies by eliminating low ridership trips and restructuring routes such as the lines on Cornell and Evergreen for better service.

Westside Service Enhancement Process

The Westside Service Enhancement process has identified new markets for transit and developed solutions to serve them. The process included:

- demographic analyses
- public survey research, and
- extensive outreach to jurisdictions, neighborhoods and businesses.

Connecting the dots: maps & surveys

Mapping residential and employment data from the U.S. Census Bureau provided new information about where people live and work. TriMet identified potential service improvements for the largest concentrations of Westside citizens who live in proximity to where they work. The Census was also used to map concentrations of people by average age, income, and race/ethnicity to ensure recommendations support TriMet's commitment to transit equity.

TriMet also received survey responses from over 600 individuals about their travel on the Westside. The survey validated many of the findings revealed throughout the process.

Listening and learning

Discussions with each local jurisdictions provided insight into where future employment, residential, and infrastructure growth will occur. TriMet also embarked on a 6-month listening tour, meeting with more than 40 community stakeholders, ranging from employers (large and small), neighborhood associations, Citizen Participation Organizations, business associations, and community-based social service providers. The listening tour was vital for developing the plan and laid the ground work for future partnerships that will be essential for the Plan's implementation.

Findings

TriMet's research revealed five key findings:

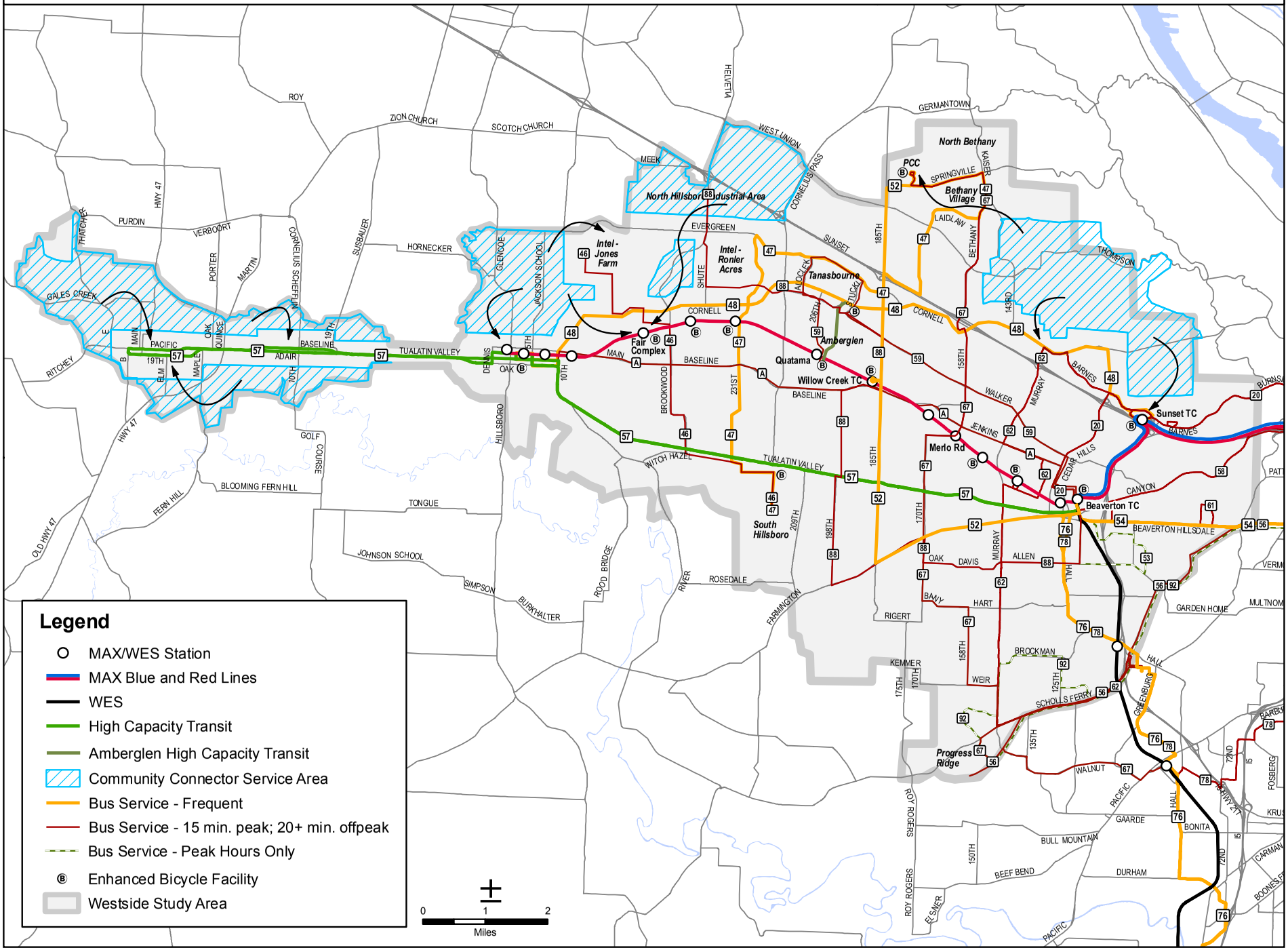
1. Transit Connections

The transit grid is incomplete, making it difficult to complete some trips without multiple transfers. Additionally, MAX doesn't run directly to Portland International Airport. Finally, there is no rapid service between employment areas in the north and communities to the south such as Tigard, Tualatin, and Sherwood.

"The Westside Economic Alliance Transportation Committee has provided significant input to TriMet staff in the development of the plan."

Pam Treece
Executive Director,
Westside Economic Alliance

Westside Service Enhancement Plan Vision



Opportunities for action

Realign bus routes to strengthen a more complete north-south and east-west grid, extend MAX Red Line service to Hillsboro and provide frequent or express services on key north- south corridors.

Complete the grid of bus lines

Extend or change eight bus routes so they better connect with areas of current development and future growth–residential and employment—and with MAX and Frequent Service Lines, especially going north-south. Improvements include:

- **North Hillsboro to South Hillsboro**
  Realigned bus service running from Intel Jones Farm to the future South Hillsboro via Brookwood Ave. and TV Highway and connecting with MAX at the Fair Complex/Hillsboro Airport Station.
- **PCC Rock Creek to South Hillsboro**
  Realigned bus service traveling between PCC Rock Creek and the future South Hillsboro connecting with Bethany Village, Tanasbourne, Intel Ronler Acres, Cornell Rd. employers and retail, TV Highway and MAX at Orenco/NW 231st Ave Station.
- **Washington Square to South Cooper Mountain**
  Extension of service along Scholls Ferry Rd. to Murray Scholls Town Center, Progress Ridge Townsquare, and future development in South Cooper Mountain.
- **Beaverton Transit Center to Tanasbourne**
  Realigned bus service on Walker Rd. between Beaverton Transit Center and Tanasbourne connecting with Cedar Hills Crossing, the AmberGlen employment area, Kaiser Permanente's Westside Medical Center, the Aloclek employment area and MAX at the Quatama/205th Ave Station.
- **Merlo to Progress Ridge/Tigard**
  Extension of service south of the Merlo Rd/158th Ave MAX station connecting with South Beaverton, the Progress Ridge Townsquare, and the Tigard Transit Center.
- **Willow Creek to the North Hillsboro Industrial Area**
  Extension of service to Cornell Rd., Orenco, Intel Ronler Acres, and the North Hillsboro Industrial Area via Shute Rd. and Brookwood Parkway.
- **Downtown Portland to Progress Ridge**
  Extension of peak period express service from downtown Portland to Progress Ridge Townsquare.
- **Downtown Hillsboro to Downtown Beaverton**
  New bus line running between Hatfield Government Center and Beaverton Transit Center via Baseline Rd. and Jenkins Rd. connecting downtown Hillsboro, Willow Creek Transit Center, Nike, Cedar Hills Crossing and Beaverton Transit Center.

MAX Red Line to Hillsboro and other high capacity transit

Consider extending MAX Red Line service to Hillsboro to provide direct service between the Silicon Forest and Portland International Airport. Among the options to consider are switching the western end-of-line destinations between MAX Blue and Red lines with the Red Line serving Downtown Hillsboro and the Blue Line terminus at Beaverton Transit

Center. Another option being studied is an extension of the Red Line to a station west of Beaverton with Blue Line service continuing to Downtown Hillsboro. The impacts on customers, operations, and cost for both options are still being studied.

TriMet and the City of Hillsboro are also studying options for transit connections between the Quatama/NW 205th Ave MAX station and the AmberGlen/Tanasbourne area. Among the options being reviewed are a MAX extension, streetcar, and rapid bus services. This transit connection is a major lynchpin for development in the Tanasbourne Regional Center.

Though WES ridership has grown significantly since its opening, demand has not indicated that frequent, midday service can be cost-effective (this is a common issue with commuter rail lines throughout the country). TriMet will continue to monitor boardings to determine if and when WES is ready for frequency improvements and midday service.

New limited stop bus service to South Washington County
New limited stop bus service originating from park and rides in Sherwood and Tualatin and traveling to the employment areas to the north would help provide greater mobility to supplement north/south roadways overburdened with traffic. These lines would also serve Tigard, South Beaverton, TV Highway and Cornelius Pass Rd. This recommendation will be explored further during the Southwest Service Enhancement Plan process in 2013-14.

2. Frequency and Travel Time

Frequency is a prime concern for transit users. Several bus lines on the Westside operate with insufficient frequency to make them attractive to a broad range of riders. Potential customers are deterred from riding transit if they fear missing their bus and having to wait a long time for the next one to arrive.

Travel time is also an important factor for people when making trips from home or work. As the Westside grows and traffic congestion increases, it takes longer for buses to complete their routes. This makes transit less reliable and depresses ridership potential.

Opportunities for action

TriMet's experience and national research have shown that transit ridership increases significantly when delay is reduced and travel time is decreased with frequency improvements and transit priority treatments such as bus lanes and signal timing.

Restore frequency on MAX and Frequent Service lines
TriMet's first priority on the Westside is to restore 15-minute frequency on the MAX Blue and Red lines and on TV Highway as revenues increase.

Faster trips, less waiting on TV Highway
Frequent, express service should be developed for TV Highway. While the corridor is well suited for rapid bus with potential for signal priority and bus lanes, an alternatives analysis may also include high capacity transit development (i.e., MAX and WES extensions).

New Frequent Service bus lines
Expand the Frequent Service Line network upgrading the highest ridership bus lines to 15 minute frequency all day. Better frequency on these lines would significantly improve service to downtowns Beaverton and Hillsboro, Orenco,

"TriMet's Westside Service Enhancement Plan will assist Kaiser Permanente in ensuring that the public has an equitable transit solution to access affordable, quality healthcare. Improved transit will also provide over 1,000 employees who work at our Gold LEED certified Kaiser Permanente Westside Medical Center sustainable options to commute to work."

Shannon Mayorga

Human Resources, Kaiser Permanente
TriMet Transit Equity and Access Advisory Committee

Tanasbourne, Cedar Mill, Sunset Transit Center, Bethany, Willow Creek, Aloha/Reedville, Nimbus, South Hillsboro and PCC Rock Creek.

Increase frequency of local service
All local bus service on the Westside should operate every 15 minutes or better during the morning and afternoon commute times. Midday service frequency will be determined by demand, but should not operate any less often than every 30 minutes if the demand grows as expected.

Implement transit priority treatments
Throughout Portland, signal technology extends green signals when a bus is running late and on 82nd Ave. in Clackamas, ODOT provides bus only lane treatments to reduce delay to bus passengers. TriMet wants to apply similar treatments to the Westside, and is partnering with Washington County to seek grants to fund priority treatments on Cornell Rd. and TV Highway.

3. Pedestrian Environments

Transit riders are pedestrians first and last. A safe pedestrian network is key to building and sustaining transit ridership**.** However, more than a quarter of respondents to the survey said that there are sidewalk gaps between their home and the nearest transit stop. Also, wide streets and long distances between signals have made it more difficult to cross the street safely, especially for seniors and people with disabilities.

Opportunities for action

TriMet will continue to partner with local cities, the County and ODOT to improve the pedestrian environment, however the cities and County must make pedestrian improvements a higher priority and invest more of their transportation funds in improvements.

Pedestrian Network Analysis
TriMet's recent *Pedestrian Network Analysis* report identifies locations near transit stops where pedestrian improvements are needed (e.g., sidewalk infill, curb ramps, landing pads, and safer crossings using signals or "flashing beacons", etc.). Cities, the County, and ODOT can give more people access to transit and improve the local quality of life and safety by using the *Pedestrian Network Analysis* as a blueprint for where to build safe crossing treatments and sidewalks. The technical report includes more details on needs and opportunities.

Safe crossings vs. road widening
Roadway widening to accommodate increased traffic conflicts with transit access by making it more difficult to cross the street safely to reach a bus stop. Washington County and the individual Westside jurisdictions in partnership with TriMet must continue to seek a balance between all means of transportation in order to address current and future challenges.

"TriMet's expanded service to PCC's Rock Creek campus is helping the college realize our goal of making education available for every kind of student. We believe in providing access to an affordable, quality education–no matter their location, age, ethnicity, level of education or financial status. TriMet is a key partner in our commitment to the community."

Mark Gorman
Specialist, Transportation Demand Management, Portland Community College

Intersection curb radius
Because intersection crossings are so important for access to transit and for residents and employees to be able to walk anywhere on the Westside, TriMet encourages cities, the County, and ODOT to re-evaluate standards and existing dimensions of curb radius at intersections. Large curb radii increase crossing distances and invite faster turning speeds for motor vehicles which leaves pedestrians exposed to dangerous interactions with fast-moving vehicles. Consider treatments such as truck aprons to reduce turning radius and crossing distance. Reducing crossing distance can also reduce the amount of time intersections need for each individual signal cycle or traffic movement, potentially reducing delay or at least the perception of delay, to pedestrians and drivers. Cost effective pilot projects can be implemented using striping or plastic "candlestick" pylons.

Bus stop landing pads
Concrete pads between sidewalks and curbs allow people with mobility devices to board and deboard buses from the sidewalk and encourage transit usage by people who can walk or bike to the bus stop. Without the landing pads, riders either must walk through wet, muddy and potentially unstable surfaces, or worse, they step into the street itself to get on or off the bus. The concrete pads also provide opportunities to install shelters at stops with high ridership, making riding transit more attractive and competitive with other options.

4. Last Mile Solutions

There are thousands of jobs located in close proximity to the Westside MAX stations, but just beyond the average distance that many people will walk–many call this "the last mile."

Opportunities for action

Transit extensions and connections are one solution for bridging the last mile, but other strategies offer effective and affordable solutions to help people travel between MAX and large employers.

Mobility hubs
More than just bike or car sharing, mobility hubs bring together all transportation options–transit, carpooling, bicycling, shared options, transportation information–into one location. Customers use either the internet or mobile connections to get information about and reserve available options for their trip. TriMet assisted with the City of Hillsboro's grant application to the Bloomberg Foundation to design and implement the region's first mobility hubs. Though the project wasn't funded, TriMet will continue to assist Hillsboro and its partners in finding funding for the project.

Increased transit frequency
As already discussed, more frequent bus service on those lines that provide connections to MAX makes short bus rides over the "last mile" more attractive by significantly cutting the amount of waiting time compared to time on the bus.

Employer-provided or other community shuttle connections
Several large Westside employers and one homeowners association (Forest Heights) provide private shuttle services between their locations and MAX. This is a common practice among large employers in other parts of the country, such as Seattle and San Francisco, where companies like Microsoft, Google, Facebook and Apple provide transit services for their employees.

Key bikeways
New or improved bikeways and trails that connect MAX stations with employment centers and other destinations would make it easier for cyclists to use transit. These improvements would also help to prioritize potential improvements in bike parking as demand increases with usage over time.

Bicycle storage at MAX stations
Secure and covered bike parking for all day or overnight storage at MAX stations makes it easier for customers to ride a bicycle to/from MAX without having to bring it on the train.

Bike and/or car sharing
Shared bike or car options at MAX stations–possibly on an employer subscription basis–can be the answer to the last mile problem.

5. Low Ridership Areas

Some areas simply have too few people, an undeveloped street network, or lack the mix of land uses to support traditional fixed-route transit. These areas don't generate enough rides for cost effective fixed-route service.

Opportunities for action

A new type of transit service called "Community Connector Service" is proposed for areas with limited ridership potential. Community Connector Service can be tailored to the community served and could range from low-cost fixed route bus ser-

vices to flexible shuttle services. This type of service will be feasible if the traditional cost structure for transit is modified or another entity operates the service. Based on current development, future plans, and local aspirations, Westside communities where Community Connector Service appears most appropriate include Forest Gove, Cornelius, North Hillsboro, Dawson Creek, Rock Creek, Cedar Mill and Forest Heights.

Reformed cost structure
Subject to labor contract negotiations, TriMet may look to develop a new structure for operators that allows for tiers of drivers based on experience. Less experienced operators at a lower cost per hour would be assigned to Community Connector Services, lowering the cost per ride and therefore making the service financially feasible to operate. Another option would be for TriMet to contract with a private company to operate the service subject to labor contract changes.

A new entity
A joint-powers authority could be developed between TriMet and local jurisdictions to operate Community Connector Services. This entity would be able to hire operators or contract service that could serve a broader range of community areas and still be cost-effective.

Another operator
TriMet can work with jurisdictions to identify other funding opportunities that would allow jurisdictions to contract for shuttle services themselves. In early 2013, the City of Forest Grove was awarded a Job Access/Reverse Commute federal grant to operate a shuttle service in the community.

Implementation

Phasing and partnership opportunities

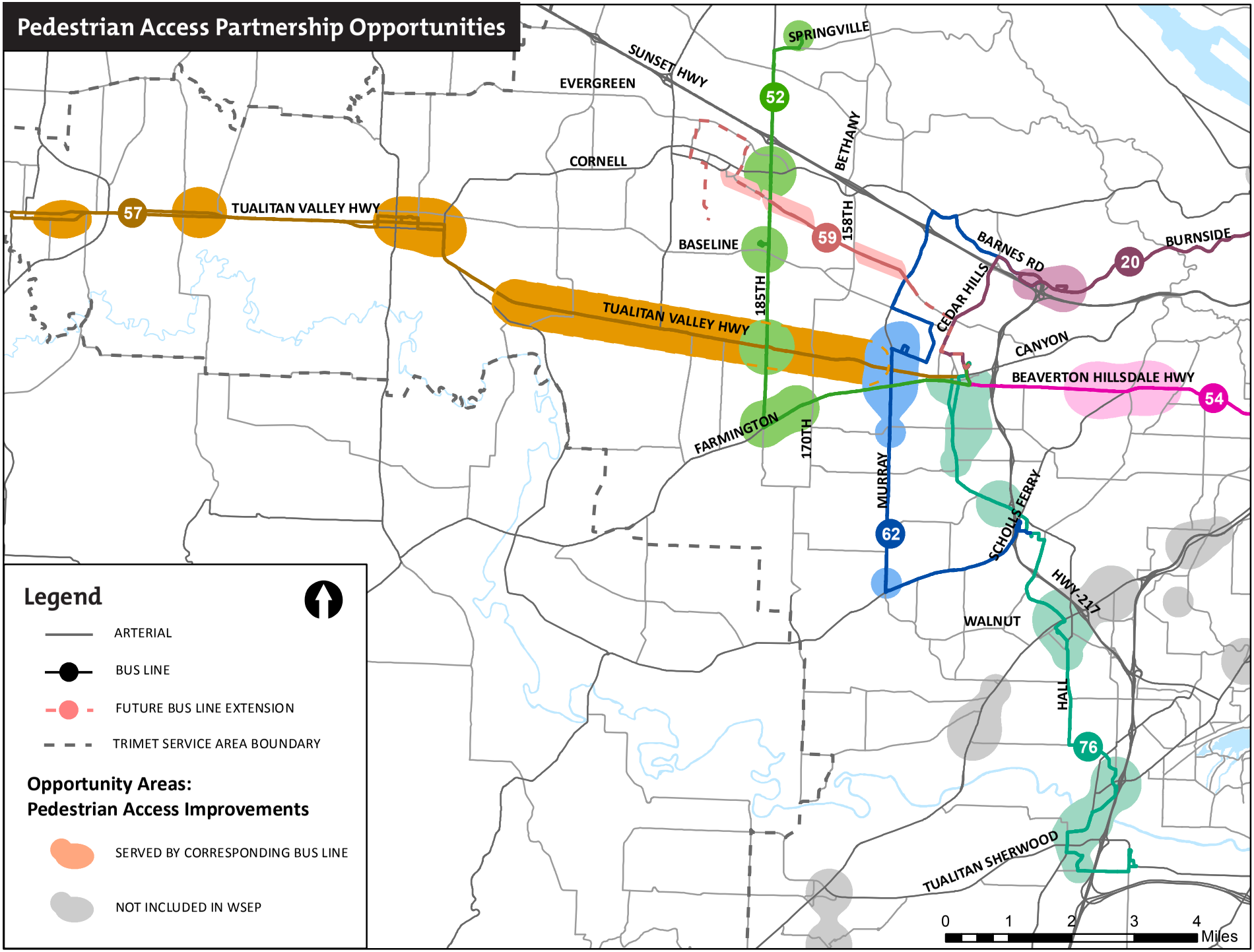
Implementation of the Westside Service Enhancement Plan recommendations will occur incrementally as TriMet's revenues increase with an improved economy and favorable labor contract. Jurisdictions can help guide which plan recommendations occur first by making plans to fund pedestrian and transit priority improvements. Ridership growth is most likely to occur if service improvements are packaged with upgrades to the pedestrian environment. The following table and map pair bus service improvements with areas where pedestrian upgrades should occur. These locations were determined using the data from TriMet's Pedestrian Network Analysis report and may already have planned improvements via the MSTIP program. TriMet seeks to partner with jurisdictions to increase transit service in concert with the pedestrian improvements illustrated on the next page.

Conclusion

TriMet supports efforts for continued economic growth and prosperity with a continuing increase in the quality of life for communities and employers on the Westside. We are committed to supporting our partners' efforts by increasing the effectiveness and importance of transit through new lines, better frequencies, new projects and partnerships for innovative service, reduced delay and better access. More than ever, future residents and employees will rely on TriMet to get them where they need to go.

Transit Improvement		Sample Locations for Pedestrian Improvements	
Line 20	Increase frequency to 15 minute service peak; 15-30 minute service midday and nights.	Barnes–Leahy to Sunset Transit Center entrance	Install enhanced pedestrian crossings near bus stops
Line 52	Increase to Frequent Service–15 min. service all day, everyday	Springville–PCC to 185th	Complete the sidewalk network on Springville Road; Install new enhanced pedestrian crossings near bus stops
		185th/Evergreen	Enhance the pedestrian crossing experience
		185th/Cornell	Enhance the pedestrian crossing experience
		185th/Baseline	Enhance the pedestrian crossing experience
		185th/TV Highway	Enhance the pedestrian crossing experience
		Farmington–170th to 185th	Complete the sidewalk network; Install new enhanced pedestrian crossings near bus stops
Line 54	Increase to Frequent Service–15 min. service all day, everyday	Beaverton-Hillsdale Hwy–99th to Shattuck Rd.	Install new enhanced pedestrian crossings near bus stops
Line 57	High capacity transit	Pacific and 19th–Highway 47 to Douglas	Complete the sidewalk network
		Baseline–10th to 20th	Complete the sidewalk network; Install new enhanced pedestrian crossings near bus stops
		Baseline–10th to 17th Oak– 10th to 17th Washington–Dennis to Adams	Complete the sidewalk network
		TV Highway	Develop TV Highway Corridor Plan recommendations

Transit Improvement		Sample Locations for Pedestrian Improvements	
Line 59	Change route to serve Beaverton Transit Center and Tanasbourne/AmberGlen Regional Center; increase frequency to 15 minute service peak; 20-30 minute service midday and nights	Walker Rd.–Murray to 158th	Complete the sidewalk network; Install new enhanced pedestrian crossings near bus stops
		Walker Rd.–167th to 185th	Complete the sidewalk network; Install new enhanced pedestrian crossings near bus stops
		Walker Rd.–185th to Von Neumann	Complete the sidewalk network; Install new enhanced pedestrian crossings near bus stops
Line 62	Increase frequency to 15 minute service peak; 15-30 minute service midday and nights.	Millikan–Murray to Hocken	Complete the sidewalk network
		Murray–Millikan to Allen	Install new enhanced pedestrian crossings near bus stops
		Murray and Scholls Ferry	Enhance the pedestrian crossing experience
Line 76	Increase to Frequent Service–15 min. service all day, everyday	Hall–Farmington to Hart	Install new enhanced pedestrian crossings near bus stops
		Hall–Greenway to Scholls Ferry	Install new enhanced pedestrian crossings near bus stops
		Greenberg–Tiedeman to Pacific Highway	Install new enhanced pedestrian crossings near bus stops
		Upper Boones Ferry–Bridgeport to Martinazzi	Complete the sidewalk network; Install new enhanced pedestrian crossings near bus stops


Pedestrian Access Partnership Opportunities
SUNSET HWY
EVERGREEN
SPRINGVILLE
52
BETHANY
CORNELL
57
TUALITAN VALLEY HWY
BASELINE
59
158TH
185TH
BARNES RD
BURNSIDE
20
CEDAR HILLS
CANYON
BEAVERTON HILLSDALE HWY
54
FARMINGTON
170TH
MURRAY
62
SCHOLLS FERRY
HWY 217
WALNUT
HALL
76
TUALITAN SHERWOOD
0 1 2 3 4 Miles
Legend
ARTERIAL
BUS LINE
FUTURE BUS LINE EXTENSION
TRIMET SERVICE AREA BOUNDARY
Opportunity Areas:
Pedestrian Access Improvements
SERVED BY CORRESPONDING BUS LINE
NOT INCLUDED IN WSEP

Available in other formats

TRIMET

130586 • 300 • 9/13

GroveLink

WEEKDAYS • EFFECTIVE NOVEMBER 18, 2013

GroveLink Route Map

BIKE RACKS AND ACCESSIBILITY
All buses are equipped with bike racks and lifts. If you need assistance, just ask your driver.

SEVERE WEATHER
On days with severe weather such as snow or ice, GroveLink schedules may follow snow routes to avoid hilly areas. Or all service may be suspended until the weather improves.

If conditions warrant a closure or change in the regular hours of operation a notice will be reported to local television and radio newsrooms. Information will also be available on our website: www.rideconnection.org. You can also call 503.226.0700.

HOLIDAY CLOSURES
Service will not be available on the following holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day

Note: If New Years Day, July 4th or Christmas Day occur on a Saturday, the holiday will be observed the Friday before the holiday. If the holiday occurs on a Sunday, the holiday will be observed on Monday.

CUSTOMER COMMENTS
Your input is appreciated! Feel free to contact us:
503.226.0700
info@rideconnection.org

WE RESPECT CIVIL RIGHTS
For a copy of our policy, please call 503.528.1721.

MONDAY - FRIDAY

WEST Loop

University & Main	Main & Beal	Forest Grove High School (Nichols Lane)	Thatcher & Gales Creek	Watercrest & Forest Gale Dr.	Forest Gale Dr. & Gales Creek	19th & B
6:30	6:34	6:37	6:42	6:47	6:49	6:55
6:59	7:03	7:06	7:11	7:16	7:18	7:24
7:26	7:30	7:33	7:38	7:43	7:45	7:51
7:55	7:59	8:02	8:07	8:12	8:14	8:20
8:22	8:26	8:29	8:34	8:39	8:41	8:47
8:51						
9:15	9:19	9:22	9:27	9:32	9:34	9:40
10:11	10:15	10:18	10:23	10:28	10:30	10:36
11:07	11:11	11:14	11:19	11:24	11:26	11:32
12:03	**12:07**	**12:10**	**12:15**	**12:20**	**12:22**	**12:28**
1:15	**1:19**	**1:22**	**1:27**	**1:32**	**1:34**	**1:40**
2:11	**2:15**	**2:18**	**2:23**	**2:28**	**2:30**	**2:36**
3:07	**3:11**	**3:14**	**3:19**	**3:24**	**3:26**	**3:32**
4:03	**4:07**	**4:10**	**4:15**	**4:20**	**4:22**	**4:28**
4:27	**4:31**	**4:34**	**4:39**	**4:44**	**4:46**	**4:52**
4:59	**5:03**	**5:06**	**5:11**	**5:16**	**5:18**	**5:24**
5:23	**5:27**	**5:30**	**5:35**	**5:40**	**5:42**	**5:48**
5:55	**5:59**	**6:02**	**6:07**	**6:12**	**6:14**	**6:20**
6:19	**6:23**	**6:26**	**6:31**	**6:36**	**6:38**	**6:44**
6:51						

MONDAY - FRIDAY

EAST Loop

Main & University	26th & Williams	Safeway (Pacific Ave)	Forest Grove Hospital (Maple & 18th)	15th & Cedar
6:35	6:38	6:44	6:47	6:50
7:02	7:05	7:11	7:14	7:17
7:31	7:34	7:40	7:43	7:46
7:58	8:01	8:07	8:10	8:13
8:27	8:30	8:36	8:39	8:42
8:54				
9:47	9:50	9:56	9:59	10:02
10:43	10:46	10:52	10:55	10:58
11:39	11:42	11:48	11:51	11:54
12:35	12:38	12:44	12:47	12:50
1:47	**1:50**	**1:56**	**1:59**	**2:02**
2:43	**2:46**	**2:52**	**2:55**	**2:58**
3:39	**3:42**	**3:48**	**3:51**	**3:54**
4:35	**4:38**	**4:44**	**4:47**	**4:50**
4:59	**5:02**	**5:08**	**5:11**	**5:14**
5:31	**5:34**	**5:40**	**5:43**	**5:46**
5:55	**5:58**	**6:04**	**6:07**	**6:10**
6:27	**6:30**	**6:36**	**6:39**	**6:42**
6:51				

PM times in **bold**.

We do our best to stay on schedule, however, times may be changed by up to 5 minutes past the scheduled stop time to adjust for traffic conditions.

$No Fare Required

To request this brochure in alternate format, please call 503.528.1721.

MONDAY - FRIDAY

AM Employment Service

Yew & Adair (Connect to TriMet Line 57)	24th Ave	Via Systems
6:02	6:04	6:09
6:20	6:22	6:27

PM Employment Service

Via Systems	HWY 47 & Pacific (Connect to TriMet Line 57)	24th Ave	Pacific & HWY 47 (Connect to TriMet Line 57)
2:47	**2:50**	**2:54**	**2:57**
3:00	**3:03**	**3:07**	**3:10**

Times shown on schedule are for designated bus stop locations. You can also request a:

FLAG STOP

If you are on a residential street along the route, and not near a designated stop, you can "flag" or simply wave to signal the bus driver to stop. Be sure to stand on the correct side of the road.

OFF-ROUTE STOPS

We will deviate off of the route to pick you up or drop you off for one leg of your trip. Off-Route requests should be called in one day in advance for better availability. For drop off requests, you ask the driver directly. We will do our best to accommodate same day requests when possible.

To call in for a deviation, please call 503-226-0700 between 8am and 4:30pm Monday - Friday.

AM Employment Schedule

OC Evangelical Church	7:10	Pick Up Time
OCTC*	7:20	

PM Employment Schedule

Mary's Woods - *Provincial House*	4:40	Pick Up Time
Marylhurst University - *Commons*	4:45	
OCTC*	5:00	
OC Evangelical Church	TBD	

Times shown on schedule are for designated bus stop locations. You can also request a:

Flag Stop

If you are on a residential street along the route, and not near a designated stop, you can "flag" or simply wave to signal the bus driver to stop. Be sure to stand on the correct side of the road.

Deviated Stop

We will deviate off the route to pick you up or drop you off for one leg of your trip. Off-Route requests should be called in one day in advance for better availability. For drop off requests, you ask the driver directly. We will do our best to accommodate same day requests when possible.

To call in for a deviation, please call 503-534-3925 between 9 am and 4 pm Monday - Friday.

Severe Weather

On days with severe weather such as snow or ice, Shuttle in the Woods schedules may follow snow routes to avoid hilly areas. Or all service may be suspended until the weather improves.

For more information about severe weather, call 503-534-3925.

Holiday Closures

Service will not be available on the following holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day.

Note: If the holiday occurs on a Saturday, the holiday will be observed the Friday before the holiday. If the holiday occurs on a Sunday, the holiday will be observed on Monday.

This free shuttle service between the Marylhurst campus, Lake Oswego, West Linn and Oregon City is in partnership with the TriMet Ride Connection and Mary's Woods at Marylhurst.

This shuttle service is a pilot program supported by a grant from TriMet. The service is owned and operated by Mary's Woods and will run from approximately 6:45 am to 6:00 pm Monday through Friday, using our bus and drivers.

See you on board!

Rev. 11/15/13

SHUTTLE IN THE WOODS

503-534-3925

Serving Lake Oswego and Oregon City

Lake Oswego Loop

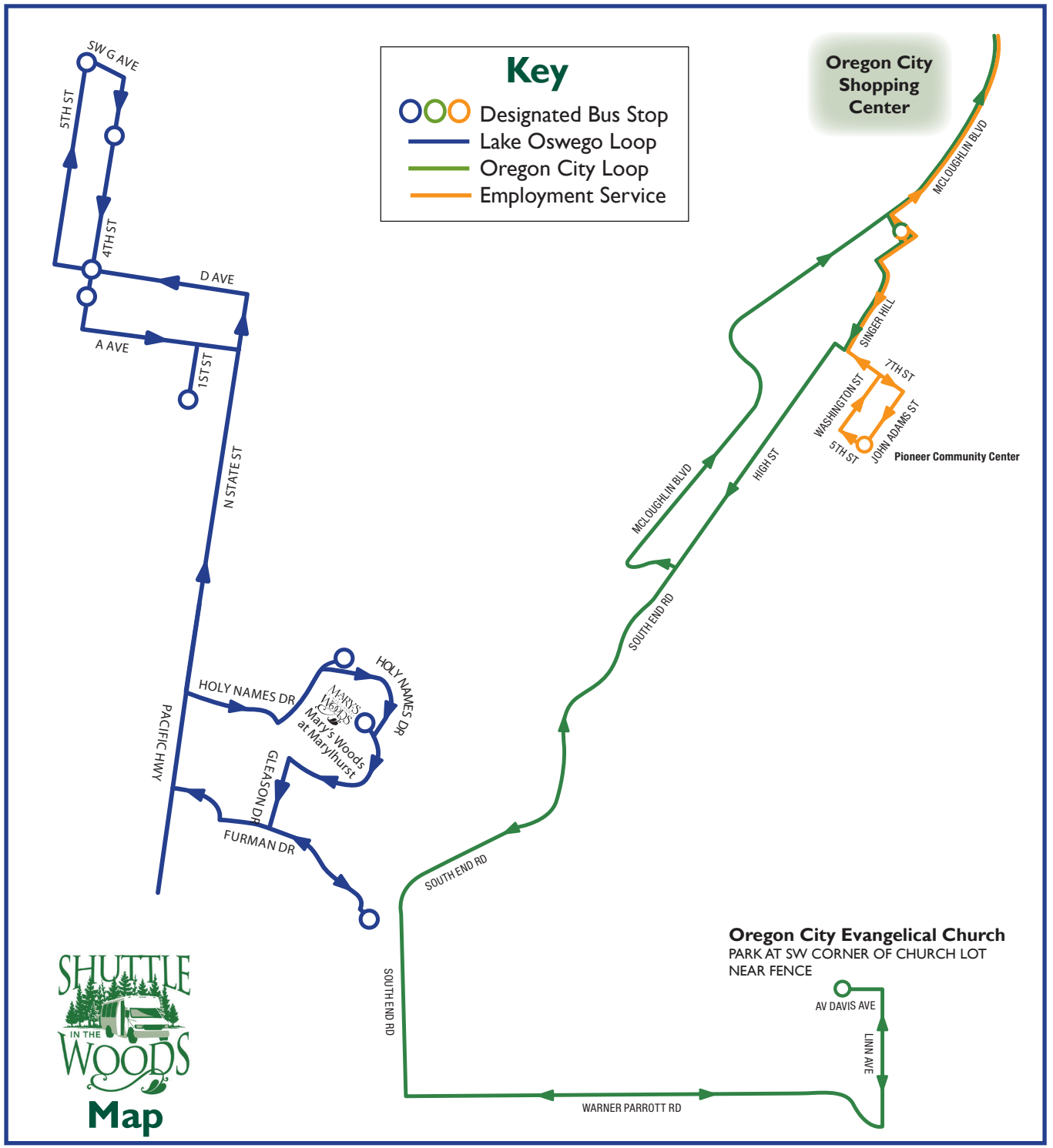
	YouthVillages	Mary's Woods - *Provincial House*	Marylhurst University - *Commons*	LOACC*/Library	Post Office/LOTC	Wizer's Area
Pick Up Time	8:00	8:05	8:10	8:25	8:30	8:35
	10:30	10:35	10:40	11:00	11:05	11:10
	1:20	1:25	1:30	1:50	1:55	2:00
	2:40	2:45	2:50	3:10	3:15	3:20

Oregon City Loop

	YouthVillages	Mary's Woods - *Provincial House*	Marylhurst University - *Commons*	OCTC*	Pioneer Community Center	Oregon City Shopping Center
Pick Up Time	9:15	9:20	9:25	9:45	9:50	10:00
	12:15	12:20	12:25	12:45	12:50	12:55

* LOACC - Lake Oswego Adult Community Center
* OCTC - Oregon City Transit Center

We do our best to stay on schedule, however, times may be changed by up to 5 minutes on either side of the scheduled stop time to adjust for traffic conditions.



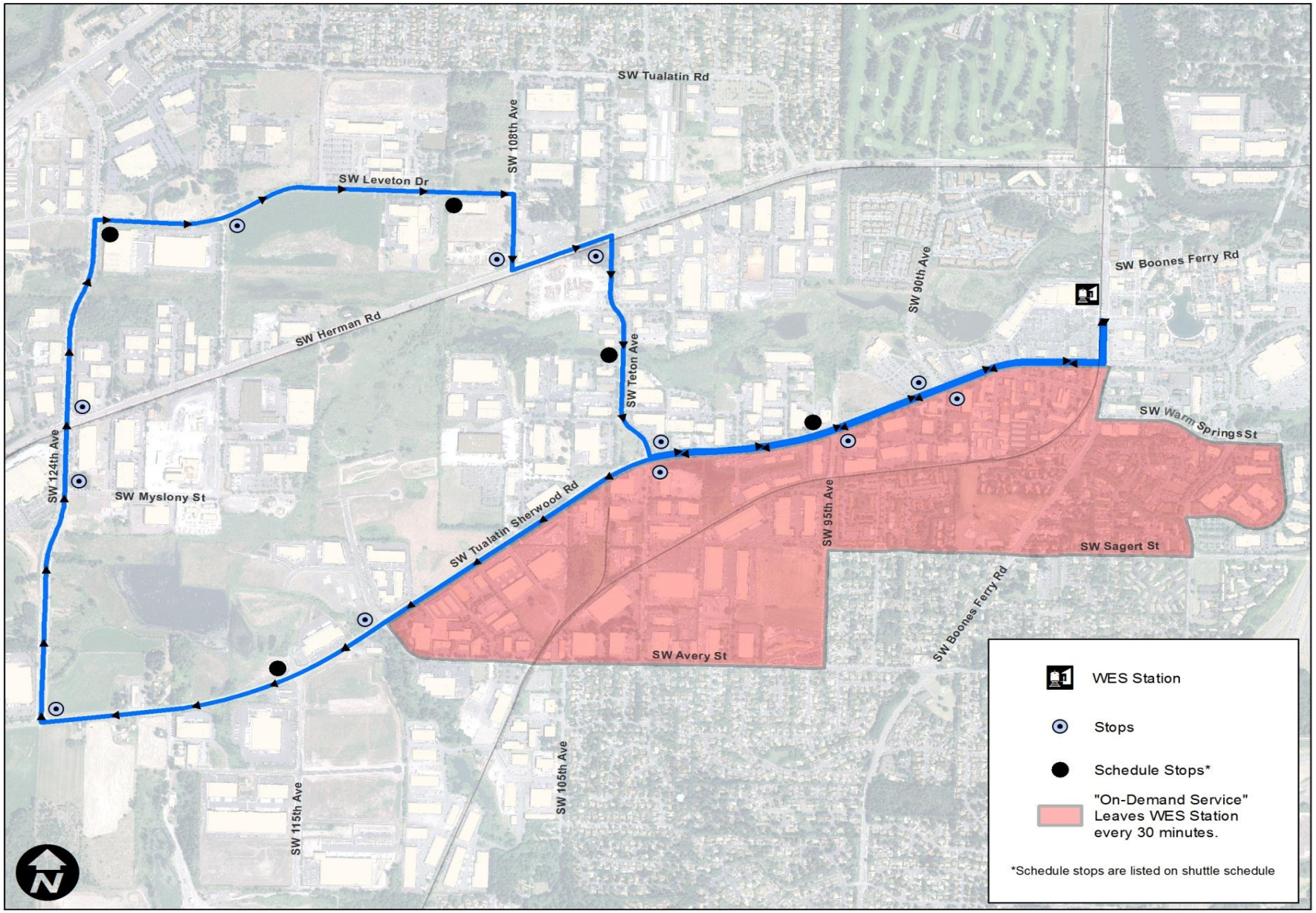
SHUTTLE IN THE WOODS

Map

Tualatin Shuttle - Blue Line "On Demand" for NW Tualatin. Call 503-686-9059.

Beta Test Revised 10/3/13

WES	SW Avery/112th & Tualatin-Sherwood Rd	SW 115th Ave & Tualatin-Sherwood Rd (*Powin Pacific & Milgard*)	SW 124th Ave & SW Myslony (Hunt Air)	SW 124th & SW Leveton Dr (Veris & VersaLogic)	SW Leveton (Fujimi & LAM Research	Spokane Court & SW Teton Ave. (Pride Fuel)	
AM-train departure (northbound)							**Next WES**
5:31	5:34	5:41	5:44	5:48	5:51	5:57	6:01
6:01	6:04	6:11	6:14	6:17	6:20	6:25	6:31
AM-train departure (southbound)							
6:15	6:18	6:25	6:28	6:32	6:35	6:40	6:45
6:45	6:48	6:55	6:58	7:02	7:05	7:10	7:15
7:15	7:18	7:25	7:28	7:32	7:35	7:40	7:45
7:45	7:48	7:55	7:58	8:02	8:05	8:10	8:15
8:15	8:18	8:25	8:28	8:32	8:35	8:40	8:45
8:45	8:48	8:55	8:58	9:02	9:05	9:10	9:15
9:15	9:18	9:25	9:28	9:32	9:35	9:40	9:45
9:45	9:48	9:55	9:58	10:02	10:05	10:10	
PM-schedule							**Next WES**
3:38	**3:41**	**3:48**	**3:51**	**3:55**	**3:58**	**4:03**	**4:08**
4:08	**4:11**	**4:18**	**4:21**	**4:25**	**4:28**	**4:33**	**4:38**
4:38	**4:41**	**4:48**	**4:51**	**4:55**	**4:58**	**5:03**	**5:08**
5:08	**5:11**	**5:18**	**5:21**	**5:25**	**5:28**	**5:33**	**5:38**
5:38	**5:41**	**5:48**	**5:51**	**5:45**	**5:58**	**6:03**	**6:08**
6:08	**6:11**	**6:18**	**6:21**	**6:25**	**6:28**	**6:33**	**6:38**
6:38	**6:41**	**6:48**	**6:51**	**6:55**	**6:58**	**7:03**	**7:08**


SW Tualatin Rd
SW 108th Ave
SW Leveton Dr
SW Herman Rd
SW Teton Ave
SW 90th Ave
SW Boones Ferry Rd
SW Warm Springs St
SW 124th Ave
SW Myslony St
SW Tualatin Sherwood Rd
SW 95th Ave
SW Sagert St
SW Boones Ferry Rd
SW Avery St
SW 115th Ave
SW 105th Ave
WES Station
Stops
Schedule Stops*
"On-Demand Service" Leaves WES Station every 30 minutes.
*Schedule stops are listed on shuttle schedule

Materials following this page were distributed at the meeting.

Short-Term Implementation Plan

Oregon Statewide Transportation Strategy

A 2050 Vision for Greenhouse Gas Emissions Reduction

Metro Policy Advisory Committee
February 26, 2014

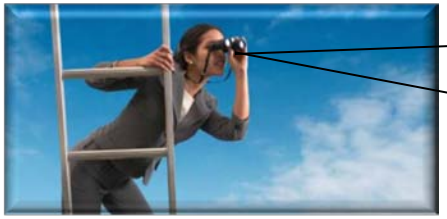
Amanda Joy Pietz
ODOT Planning Unit Manager

Anne Russett
Senior Planner, Planning Unit

What is the STS?

- Legislatively mandated, non-regulatory document
  - What would it take to substantially reduce emissions *while balancing other important societal goals*

Look into the future



Out to 2050

Overview of Strategies

Extensive modeling/analysis work, in combination with committee and stakeholder collaboration yielded 18 recommended strategies

- Strategies:

Vehicle and Engine Technology Advancements

1 – More Efficient, Lower-Emission Vehicles and Engines

Fuel Technology Advancements

2 – Cleaner Fuels

Systems and Operations Performance

3 – Operations and Technology

4 – Airport Terminal Access

5 – Parking Management

6 – Road System Growth

Overview of Strategies

Transportation Options

7 – Transportation Demand Management

8 – Intercity Transit Growth and Improvements

9 – Intracity (Urban) Transit Growth and Improvements

10 – Bicycle and Pedestrian Network Growth

11 – Carsharing

12 – More Efficient Freight Modes

Efficient Land Use

13 – Compact, Mixed-Use Development

14 – Urban Growth Boundaries

15 – More Efficient Industrial Land Uses

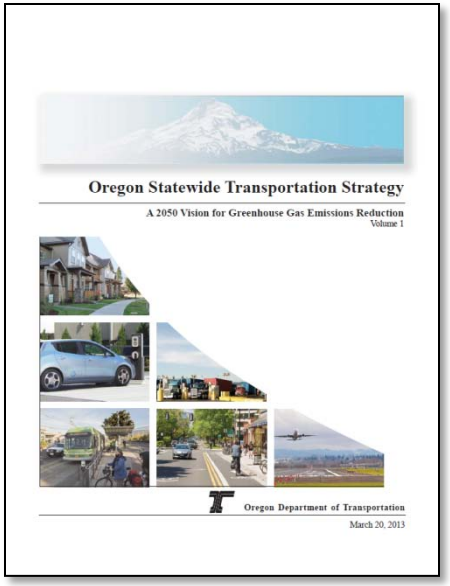
Pricing, Funding and Markets

16 – Funding Sources

17 – Pay-As-You-Drive Insurance

18 – Encourage a Continued Diversification of Oregon's Economy

What Does the STS Mean?



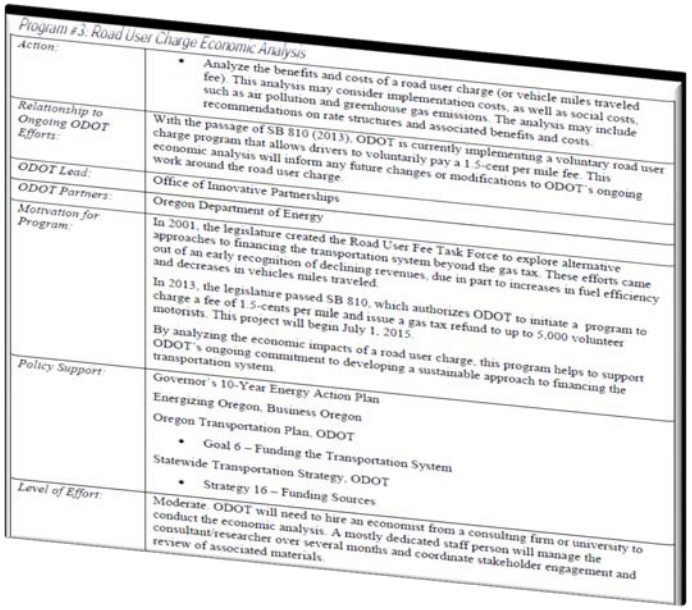
- OTC accepted in March 2013
- Is a statewide strategy
  - Includes *potential* actions for Federal and State Government, local jurisdictions, the private sector and individuals
- ODOT and others need to decide implementation next steps including:
  1. What to implement?
  2. How?
  3. When?

Developing an Implementation Plan

- Staff worked to develop an ODOT Work Plan
- Focused on the short-term (0-5 years)
- Conducted inreach and outreach to learn:
  - Actions being pursued that align with STS
  - Actions that could be enhanced to align with STS
  - Opportunities and challenges

Short-Term Implementation Plan

- Developed Short-Term Implementation Plan
  - Only highlights new or reprioritized work
    - ODOT is doing other things that further the STS
    - As are other external stakeholders
    - See “Summary Sheets”
  - Focused on actions that:
    - leverage existing work
    - are low cost or have a high degree of political acceptance, or
    - have outcomes with many apparent benefits



Program #3: Road User Charge Economic Analysis	
Action:	• Analyze the benefits and costs of a road user charge (or vehicle miles traveled fee). This analysis may consider implementation costs, as well as social costs, such as air pollution and greenhouse gas emissions. The analysis may include recommendations on rate structures and associated benefits and costs.
Relationship to Ongoing ODOT Efforts:	With the passage of SB 810 (2013), ODOT is currently implementing a voluntary road user charge program that allows drivers to voluntarily pay a 1.5-cent per mile fee. This economic analysis will inform any future changes or modifications to ODOT's ongoing work around the road user charge.
ODOT Lead:	Office of Innovative Partnerships
ODOT Partners:	Oregon Department of Energy
Motivation for Program:	In 2001, the legislature created the Road User Fee Task Force to explore alternative approaches to financing the transportation system beyond the gas tax. These efforts came out of an early recognition of declining revenues, due in part to increases in fuel efficiency and decreases in vehicles miles traveled. In 2013, the legislature passed SB 810, which authorizes ODOT to initiate a program to charge a fee of 1.5-cents per mile and issue a gas tax refund to up to 5,000 volunteer motorists. This project will begin July 1, 2015. By analyzing the economic impacts of a road user charge, this program helps to support ODOT's ongoing commitment to developing a sustainable approach to financing the transportation system.
Policy Support:	Governor's 10-Year Energy Action Plan Energizing Oregon, Business Oregon Oregon Transportation Plan, ODOT • Goal 6 – Funding the Transportation System Statewide Transportation Strategy, ODOT • Strategy 16 – Funding Sources
Level of Effort:	Moderate. ODOT will need to hire an economist from a consulting firm or university to conduct the economic analysis. A mostly dedicated staff person will manage the consultant/researcher over several months and coordinate stakeholder engagement and review of associated materials.

Short-Term Implementation Plan

- Identified seven programs
  - Represents a small sampling of strategies and elements included in the STS
- Conducted an Economic Assessment
  - Focused on Programs included in Implementation Plan
  - Results showed no apparent adverse impacts

- Need to look beyond Short-Term Actions
  - ODOT plans to develop Mid- and Long-Term Implementation Plans


Economic Considerations:

Statewide Transportation Strategy (STS)
Short-Term Implementation Plan

Prepared by:
Chris Wornum, *Economist*
Steven Pickrell, *Principal-in-Charge*
Cambridge Systematics, Inc.

CAMBRIDGE SYSTEMATICS

Prepared for:
Oregon Department of Transportation
Transportation Planning Unit

December 2013

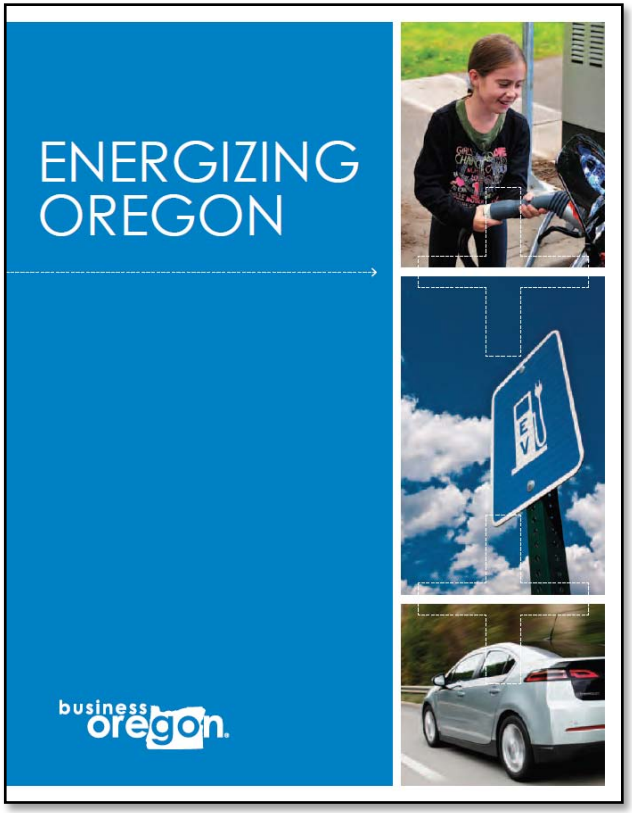
STS SHORT-TERM IMPLEMENTATION PLAN

Implementation Plan Components

- Implementation Programs:
  - Plan identifies seven programs that ODOT will implement in the next 2-5 years
- Tracking Progress:
  - includes an approach to monitoring and reporting on implementation progress

Program #1: Electric Vehicles and Low Emission Fuels

- Builds upon Oregon's ongoing work around EVs and other low-emission fuels.
- Supports the recommendations outlined in *Energizing Oregon.*
- Expands efforts around communication materials that highlight alternative fuel vehicles.
- Identifies the administration of $4M approved by the OTC for the the installation of natural gas fueling stations.



Program #2: Eco-Driving

- Launch deployment of ODOT eco-driving educational efforts.
- Explore developing an eco-driving certification program for transit operators, commercial fleets, and freight carriers.

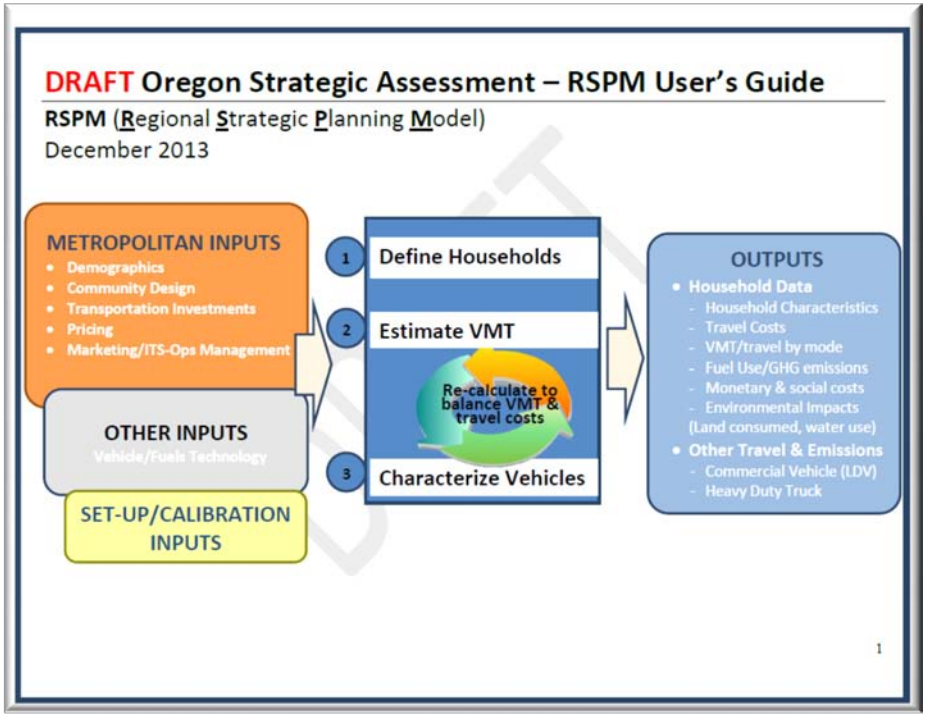
Program #3: Road User Charge Economic Analysis

- Analyze the benefits and costs of a road user charge (or vehicle miles traveled fee). This analysis may consider implementation costs, as well as social costs, such as air pollution and greenhouse gas emissions. The analysis may include recommendations on rate structures and associated benefits and costs.

Program #4: Strategic Assessment and Scenario Planning

- Work with metro areas on Strategic Assessments and scenario planning efforts, providing technical assistance and negotiating financial support.

- Through the Oregon Modeling Steering Committee, collaborate on appropriate tools to support GHG reduction planning and other planning efforts.

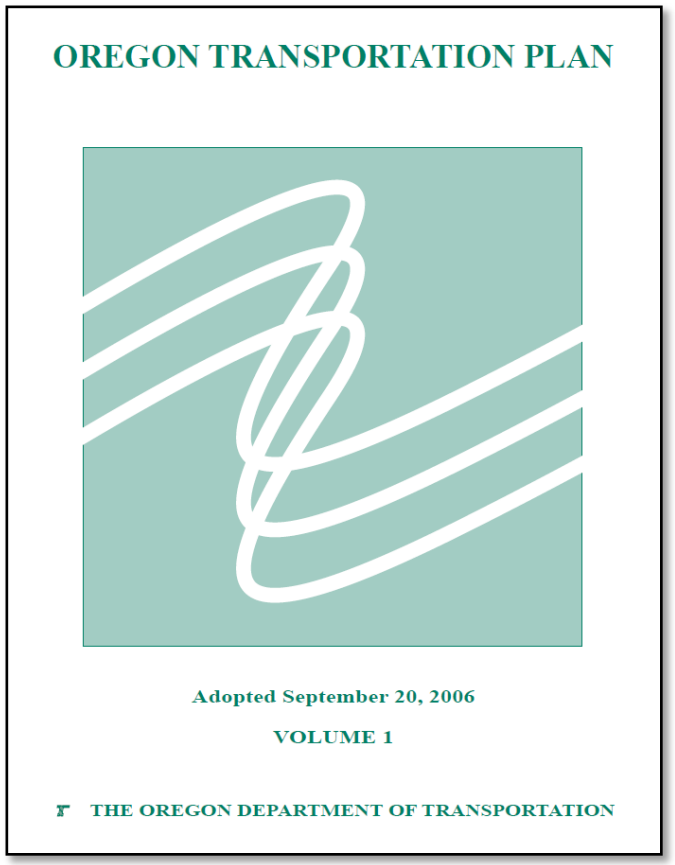


Program #5: Intelligent Transportation Systems (ITS)

- Focuses on supporting and expanding the following ongoing ITS efforts:
  - Variable Speed Limits
  - Adaptive Signal Control
  - Traveler Information
  - Traffic Incident Management
    - Including enhanced interagency coordination

Program #6: Transportation Planning and Project Selection

- Evaluate the STS strategies and elements for inclusion, as appropriate, into all relevant planning documents to help achieve the STS trajectories.
- Amend the Oregon Transportation Plan (OTP) to consider the STS.
- Consider the STS in the development of the 2017-2020 STIP.



Program #7: Stakeholder Coordination

- Monitor and provide information on initiatives that align with the STS (e.g. Oregon Clean Fuels, Governor's 10-Year Energy Action Plan) and ensure external and internal coordination to ensure efficiencies, remove redundancies, and identify leveraging opportunities, as appropriate.

Tracking Progress

- Monitoring:
  - Cumulative change in state GHG emissions
  - Program effectiveness
- Reporting:
  - Biennial progress report that provides a status update on the implementation programs and emissions tracking

NEXT STEPS

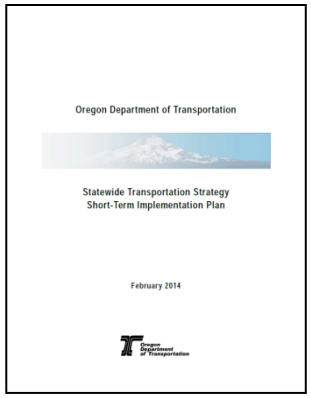
Next Steps

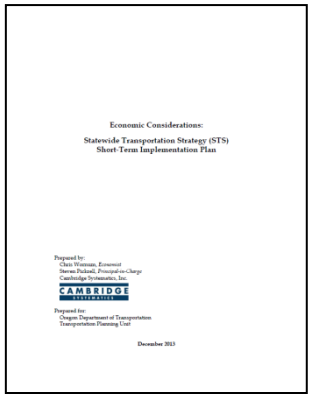
- Presentations to Metro committees:
  - Joint Policy Committee on Transportation
  - Metro Policy Advisory Committee
  - Metro Technical Advisory Committee
  - Transportation Policy Alternatives Committee

Next Steps

- Commence implementation of the programs outlined in the STS Short-Term Implementation Plan
- Monitor statewide change in emissions and program effectiveness
- Prepare biennial progress reports
  - Complete first report within four years
- Explore other STS strategies and consider including them in the mid-term and long-term implementation plans

Questions and Comments





Contact Information:

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Anne Russett, Senior Planner
Anne.Russett@odot.state.or.us
503/ 986-6576

Website: http://www.oregon.gov/ODOT/TD/OSTI/Pages/STS.aspx

TriMet Service Enhancement Plans

A Community Based Approach to Shaping the Future of Transit

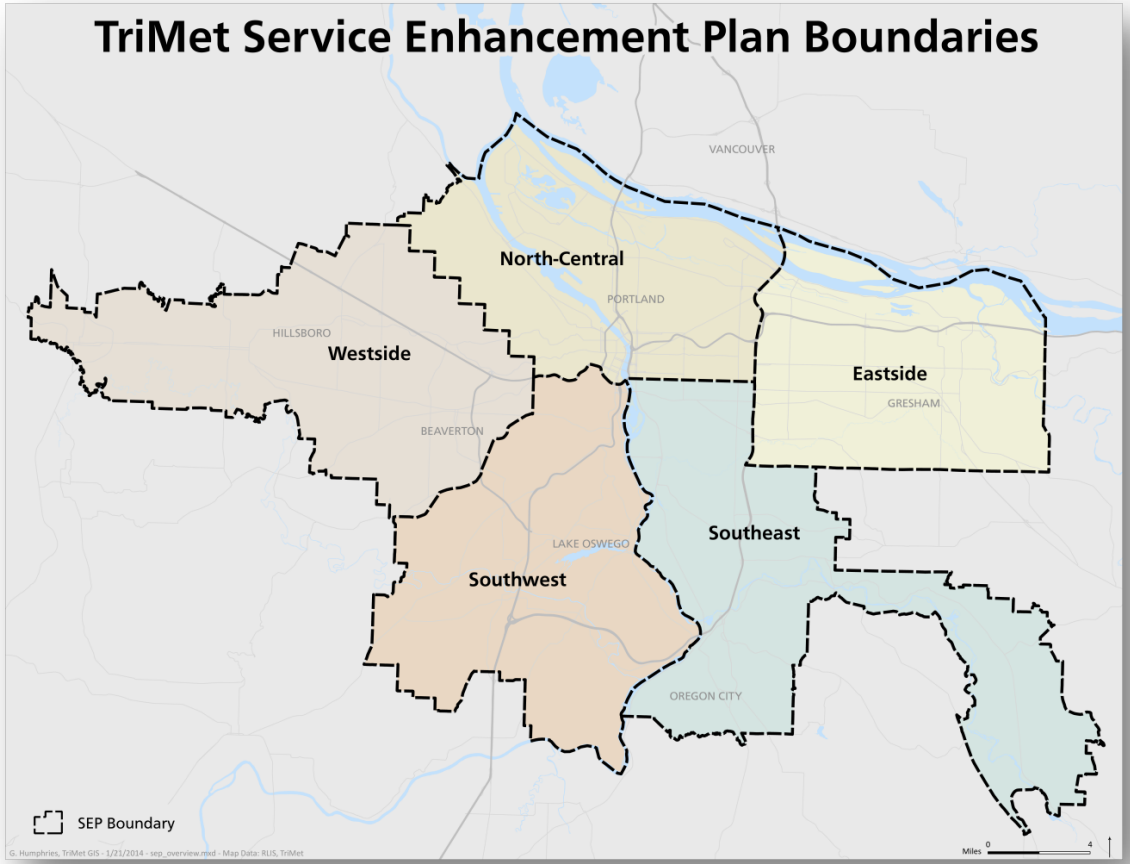
Presentation to the MPAC
February 26, 2014

TRIMET

The Region is Growing Again

Service Enhancement Plans

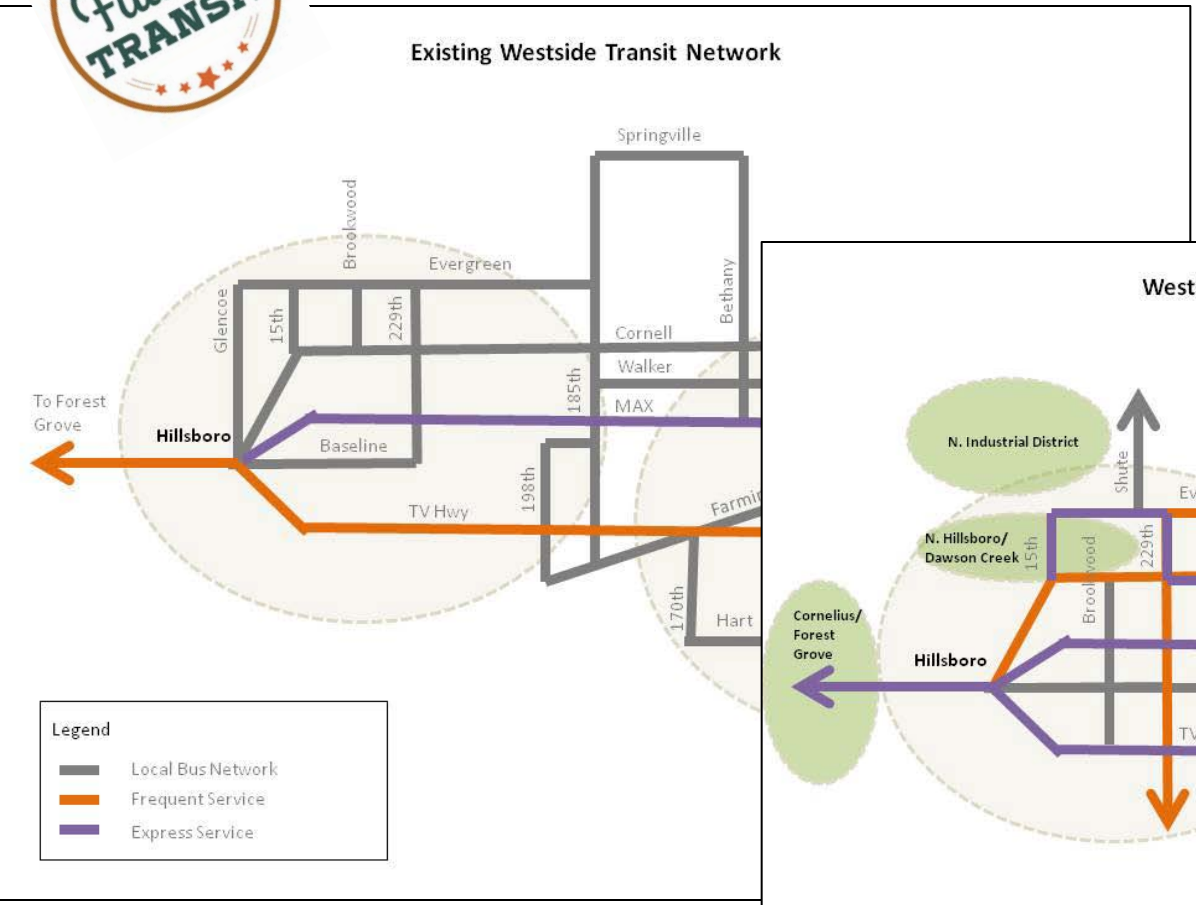
Creating a shared vision for making transit better

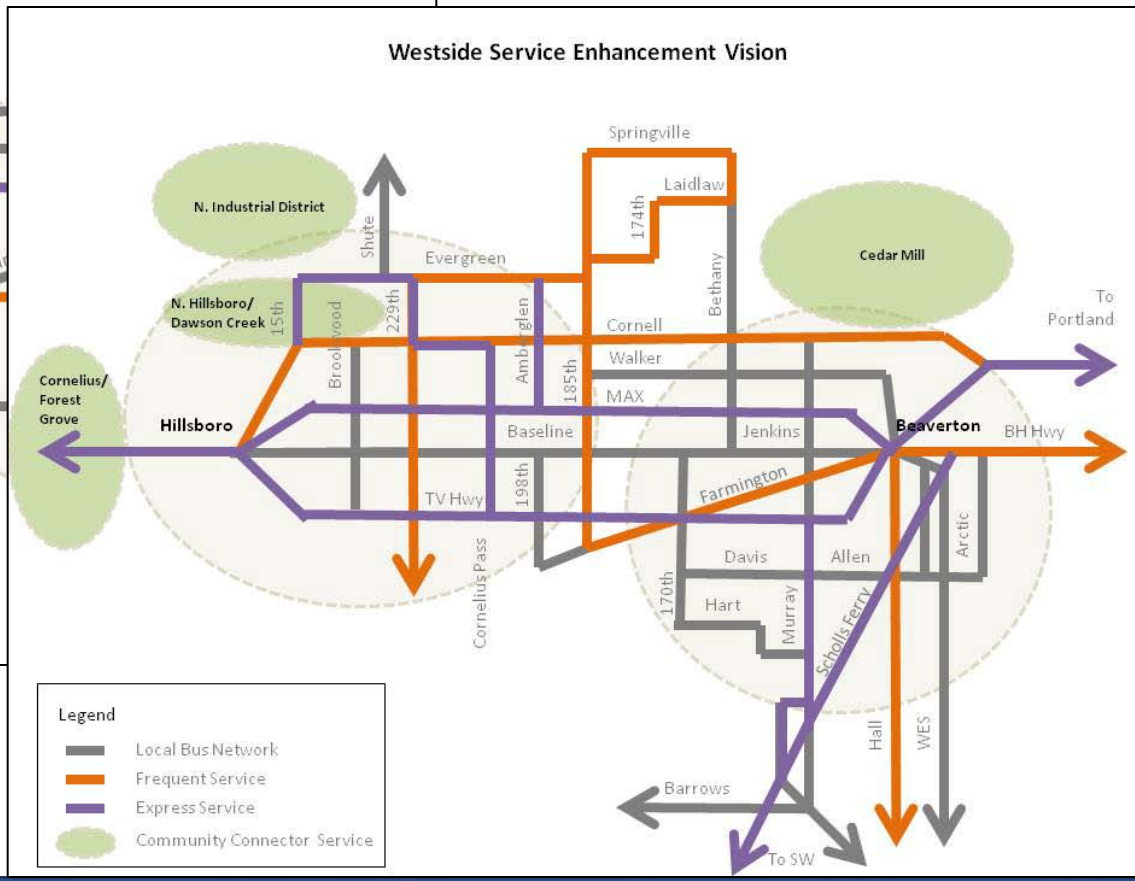


Westside Service Enhancement Plan

TRIMET

The Vision


Existing Westside Transit Network
Springville
Brookwood
Evergreen
Bethany
Glencoe
15th
229th
Cornell
Walker
185th
MAX
To Forest Grove
Hillsboro
Baseline
198th
TV Hwy
Farmi
170th
Hart
Legend
Local Bus Network
Frequent Service
Express Service


Westside Service Enhancement Vision
Springville
Laidlaw
174th
N. Industrial District
Shute
Evergreen
Cedar Mill
Bethany
N. Hillsboro/ Dawson Creek
15th
229th
Brookwood
Amberglen
Cornell
To Portland
Walker
185th
MAX
Cornelius/ Forest Grove
Hillsboro
Baseline
Jenkins
Beaverton
BH Hwy
198th
TV Hwy
Farmington
Cornelius Pass
Davis
Allen
Arctic
170th
Hart
Murray
Scholls Ferry
Hall
WES
Barrows
To SW
Legend
Local Bus Network
Frequent Service
Express Service
Community Connector Service

Partnerships

Before

After

The Next Service Enhancement Plans

In Progress:

Southeast SEP

PORTLAND-MILWAUKIE LIGHT RAIL PROJECT

Southwest SEP

GREAT PLACES SW Corridor www.swcorridorplan.org

East Side SEP

Powell/Division Transit Development Project

The Next Service Enhancement Plans

Starting in 2014:

North/Central SEP

For more information: trimet.org/future

GroveLink

Transit in Forest Grove

MPAC

February 26, 2014

City Interest in Transit

- Long standing desire to expand transit service in the community
- Attempted to expand service with TriMet
- Issue – Do we stay in TriMet or separate similar to Canby?

Past Studies

- 2009 – In-house effort with citizen committee
  - Is there interest in transit
  - What are the options for transit service
- 2011 – Nelson – Nygaard with citizen committee
  - What option should Forest Grove pursue
  - What does the City need to do to start transit service
- TriMet developed Westside Transit Service Study- recommended additional transit service for Forest Grove-Cornelius area – released during 2011 study

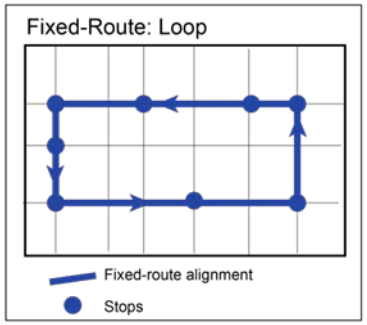
Demographics Supporting Transit
(from Nelson Nygaard Study)

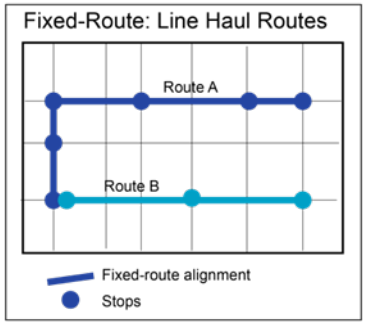
- Good mix of higher density development throughout community
- larger share of demographic groups (youth, seniors, disabilities, low income and carless) that typically have the greatest need for transit services, compared to the county and region.
- Large inflow and outflow of employees – need to stay in TriMet

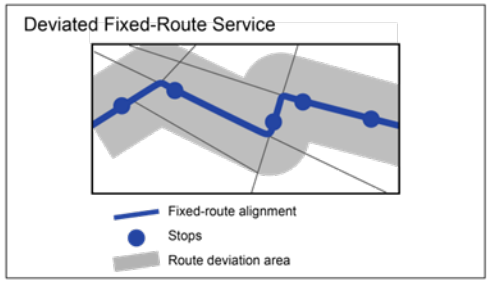
Nelson – Nygaard Study

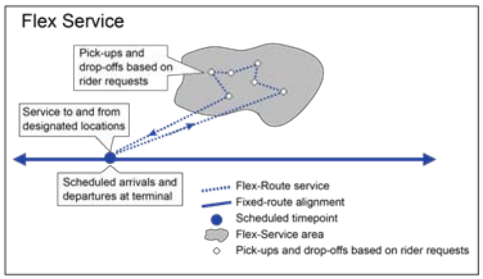
Local Service Types

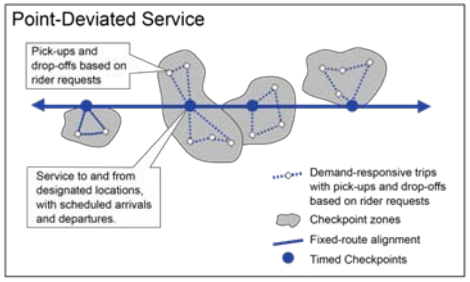
Service Type	Description
Fixed Route	Local service with fixed route and schedules (e.g., 30-60 minutes). Requires complementary ADA Paratransit (curbside pickups/dropoffs).
Deviated Fixed Route	Local service with optional deviations (e.g., ¾ mile area) along the length of a route to make curbside pickups/dropoffs on demand. No ADA requirement.
Flex Route	Local service with curbside pickups/dropoffs on demand in a defined zone. May have some fixed stops or timepoints (point deviation). No ADA requirement.











During Nelson – Nygaard Study

- TriMet approached Ride Connection to apply for Federal funds to provide service in Forest Grove
- This changed the focus of the study from “how to” to “how to sustain”

Grant Funding

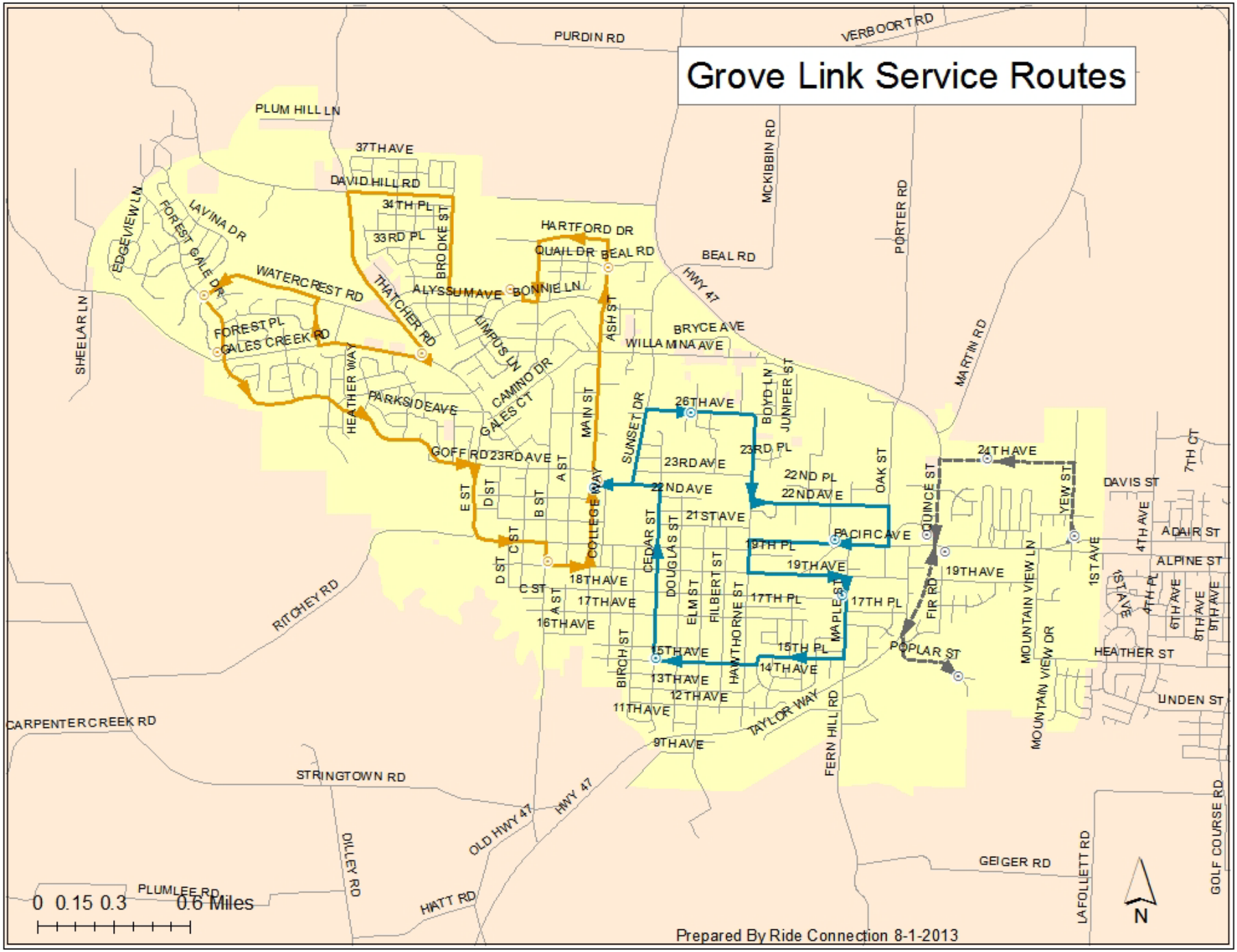
- JARC - Operation costs for one year - $121,000 for Forest Grove
- 5310 Funds - Operation costs for two years $121,000 per year
- 5310 Funds - Bus Equipment (two 14 passenger buses) - $134,450
- TriMet funded the local match for operations; City funded the bus equipment match ($13,808) through TIF funds

Before Operations Began

- Ride Connection wanted community input to develop the service
  - Publicity Campaign
  - Survey – about 300 responses
  - Developed routes
  - Solicited comments about the routes
  - Solicited proposed name for the service
- The service was developed based on these inputs
- Deviated Fixed Route Service

Deviated Fixed Route Service Operation

- Two Routes
  - West and East side of community
  - Cover Industrial Areas during peak times
  - Service to most of the community
  - High School
- Two Schedules
  - Midday – one bus
  - Peak hours (Commuter times) – two buses
  - 6 am to 7 pm weekdays
- Deviations anywhere in Forest Grove
- Started service August 19, 2013
- Fareless


Grove Link Service Routes
PURDIN RD
VERBOORT RD
PLUM HILL LN
37TH AVE
DAVID HILL RD
34TH PL
33RD PL
BROOKE ST
HARTFORD DR
QUAIL DR
BEAL RD
MCKIBBIN RD
PORTER RD
EDGEVIEW LN
FOREST GALE DR
LAVINA DR
WATERCREST RD
THATCHER RD
ALYSSUM AVE
BONNIE LN
LIMPUS LN
ASH ST
HWY 47
BRYCE AVE
WILLAMINA AVE
SHEELAR LN
FOREST PL
GALES CREEK RD
HEATHER WAY
PARKSIDE AVE
CAMINO DR
GALES CT
MAIN ST
SUNSET DR
26TH AVE
BOYD LN
JUNIPER ST
MARTIN RD
GOFF RD
23RD AVE
23RD PL
22ND PL
22ND AVE
OAK ST
24TH AVE
DAVIS ST
7TH CT
E ST
D ST
C ST
B ST
A ST
COLLEGE WAY
21ST AVE
CEDAR ST
DOUGLAS ST
QUINCE ST
YEW ST
ADAIR ST
4TH AVE
ALPINE ST
PACIFIC AVE
19TH PL
19TH AVE
1ST AVE
18TH AVE
17TH AVE
17TH PL
ELM ST
FILBERT ST
HAWTHORNE ST
MAPLE ST
FIR RD
MOUNTAIN VIEW LN
MOUNTAIN VIEW DR
16TH AVE
15TH AVE
15TH PL
14TH AVE
13TH AVE
12TH AVE
11TH AVE
9TH AVE
BIRCH ST
POPLAR ST
HEATHER ST
UNDEN ST
TAYLOR WAY
FERN HILL RD
RITCHEY RD
CARPENTER CREEK RD
STRINGTOWN RD
OLD HWY 47
HWY 47
OLNEY RD
PLUMLEE RD
HATT RD
GEIGER RD
LAFOLLETT RD
GOLF COURSE RD
0 0.15 0.3 0.6 Miles
N
Prepared By Ride Connection 8-1-2013

First Day

Results Thus Far

Ridership has increased each month

- August – averaged 40 passengers per day
- September – averaged 70 passengers per day
- October – averaged 86 passengers per day
- November – averaged 85 passengers per day
- December – averaged 88 passengers per day
- January – averaged 108 passengers per day
- Buses at certain times are at capacity

AM and PM differences are significant

- AM – 32%
- PM – 68%

Popular stops

- Safeway store
- High School
- Watercrest and Forest Gale Drive (northwest part of the community and most suburban)

Low ridership

- Industrial areas

Next Steps

- Develop Long-Term funding source
- Work on improving ridership in Industrial Areas
- Install infrastructure
  - Permanent bus stops
  - Shelters
  - Bus zones

Shuttle in the Woods

Serving Lake Oswego
and Oregon City


MARY·S WOODS
AT MARYLHURST
www.maryswoods.com

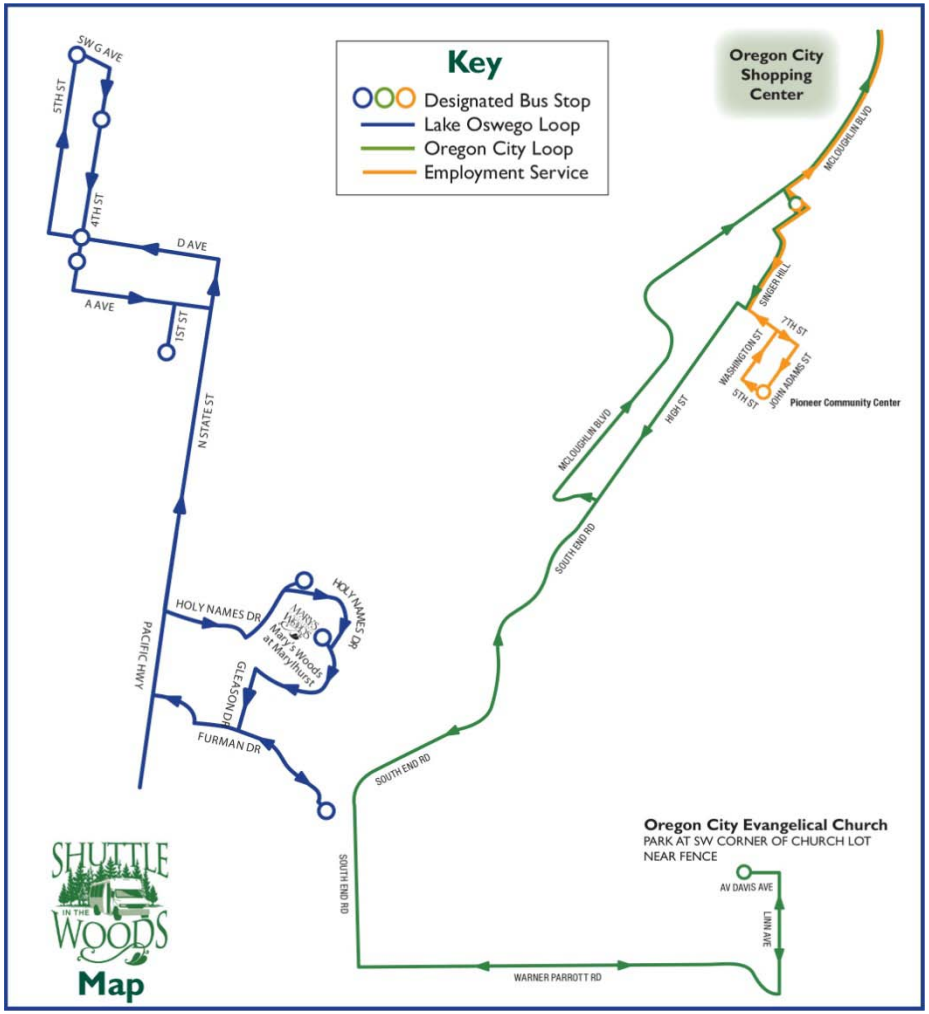
Program stats

Started Nov 11, 2013

Ridership

Nov 2013	
Residents	101
Employees	76
Total	**177**
Dec 2013	
Residents	314
Employees	201
Total	**515**
Jan 2014	
Residents	255
Employees	272
Students	67
Total	**594**

Shuttle route



General public route schedule

Lake Oswego Loop

	Youth Villages	Mary's Woods - *Provincial House*	Marylhurst University - *Commons*	LOACC*/Library	Post Office/LOTC	Wizer's Area
Pick Up Time	8:00	8:05	8:10	8:25	8:30	8:35
	10:30	10:35	10:40	11:00	11:05	11:10
	1:20	1:25	1:30	1:50	1:55	2:00
	2:40	2:45	2:50	3:10	3:15	3:20

Oregon City Loop

	Youth Villages	Mary's Woods - *Provincial House*	Marylhurst University - *Commons*	OCTC*	Pioneer Community Center	Oregon City Shopping Center
Pick Up Time	9:15	9:20	9:25	9:45	9:50	10:00
	12:15	12:20	12:25	12:45	12:50	12:55

* LOACC - Lake Oswego Adult Community Center
* OCTC - Oregon City Transit Center

Employee route schedule

AM Employee Schedule

OC Evangelical Church	7:10	Pick Up Time
OCTC*	7:20	

PM Employee Schedule

Mary's Woods - *Provincial House*	4:40	Pick Up Time
Marylhurst University - *Commons*	4:45	
OCTC*	5:00	
OC Evangelical Church	TBD	

* LOACC - Lake Oswego Adult Community Center
* OCTC - Oregon City Transit Center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Tualatin
CHAMBER OF COMMERCE
BUSINESS AND COMMUNITY WORKING TOGETHER

Tualatin Shuttle

Tualatin Shuttle

- 1997, Tualatin met primary criteria for JARC Funded Projects as a “Target Employment Area” with a high percentage of population at or below 150% of Federal poverty. The Tualatin Shuttle started with one (14) passenger van as a TMA. It provided TriMet commuters with FREE, Monday-Friday, demand-response, peak-hour service.
- 2010, with the addition of WES, the program was expanded to add a second (7) passenger van.
- 2012, Tualatin was selected to participate in a nation-wide study, JAMI (Job Access Mobility Institute) to develop an improved system of moving workers from TriMet and WES to their jobs. Our team consisted of 7 community partners:

JOB ACCESS MOBILITY INSTITUTE
COMMUNITY TRANSPORTATION ASSOCIATION OF AMERICA

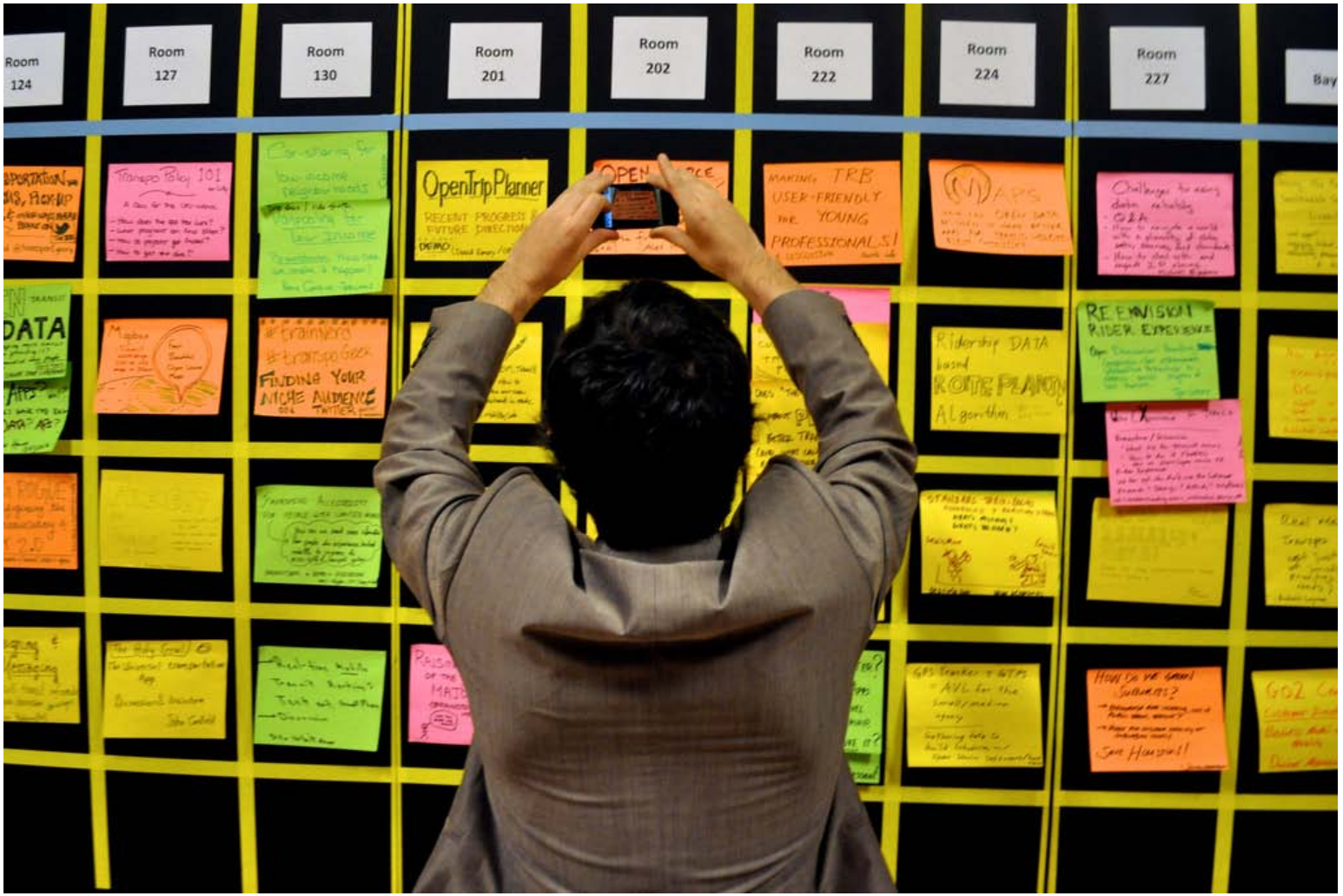
& Tualatin Shuttle

THE JAMI TEAM

- Linda Moholt, Tualatin Chamber of Commerce, CEO
- Cora Potter, Ride Connection, Service Specialist
- Heather McCarey, Westside Transportation Alliance, Executive Director
- Cindy Hahn, City of Tualatin, Associate Planner
- Dan Marchand, TriMet, Service Planner, JARC Administrator
- Susan Bryant, PCC, Worksource Portland Metro-Tualatin, Career Specialist
- Joe Lipscomb, Retired Architect & Environmental Designer, Certified Planner & Developer
- John Kuypers, SR. SCORE Volunteer with 45 years in Government & Private Sector

JOB ACCESS MOBILITY INSTITUTE
COMMUNITY TRANSPORTATION ASSOCIATION OF AMERICA

& Tualatin Shuttle



& Tualatin Shuttle

- JAMI Findings:
  - Out of the 22,000 jobs in Tualatin, over 18,000 commuters travel in and out each day.
  - JARC Criteria: 1) Tualatin continues to have a large concentration of jobs that attracts significant traffic due to lack of transit service.
    2) Tualatin has a high level of persons reporting income at or below 150% of Federal Poverty.
  - Problem: lack of sustainable and viable east-west transit options from the downtown core to the NW Industrial sector.
  - 13 Large employers, representing 15% of our workforce were surveyed. Many use 24/7 shifts, with employees coming from 50-75 different zip codes.
  - Most drive single occupancy vehicles due to a complete lack of transit options or a lack of timely options.
  - Approximately 10-15% could take transit based on TriMet or WES availability and their work schedules if they had last-mile service.

Tualatin Shuttle

- Conclusion:
  - 2013, JARC Funds were awarded to increase the program. Tualatin Shuttle now operates commuter (last-mile) service with two (14) passenger vans from TriMet & WES stops, Monday – Friday during peak hours.
    - Blue Van provides a modified "Demand Response" route through the NW Industrial Area, M-F, 5:30am-10:00am & 2:00pm-7:00pm.
    - Red Van provides a Demand Response" service for the downtown core area, M-F, 5:30am-10:00am & 2:00pm-7:00pm.
  - Tualatin Shuttle serves over 2200 riders per month for a cost of $5.93/ride. Some riders have shared that they would not have a job if it weren't for the Tualatin Shuttle.
  - All funding comes through JARC. Additional funding options are being explored.
  - Future Goal: to increase ridership to make the program financially viable so that TriMet will add east-west service.

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Metro | *Memo*

Date: February 21, 2014

To: MPAC

From: Ted Reid, Senior Regional Planner

Re: 2015 growth management decision: forecast comparisons

At its February 12, 2014 meeting, staff provided MPAC with an overview of how Metro's past forecasts compare with actual growth and how our preliminary 2014 forecast growth rates compare with other forecast sources. Staff provided detailed tables on these topics but, in retrospect, feels that summaries would also be useful.

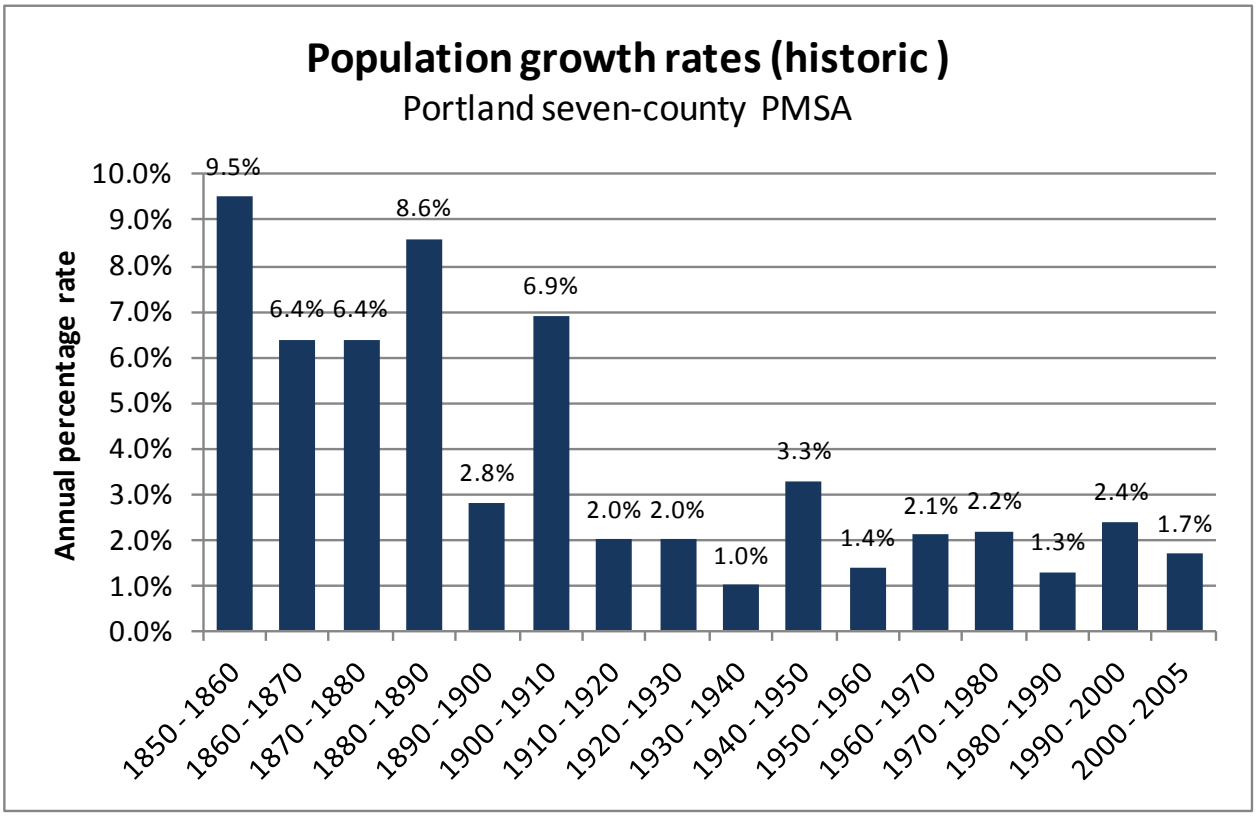
Table 1 summarizes how Metro's past forecasts for the metropolitan area compare with actual growth.

Table 1: comparison of past Metro regional forecasts with actual growth

Forecast published	**Population**	**Employment**
1985 (through 2005)	-6.6% underestimate	-3.3% underestimate
2000 (through 2010)	3.2% overestimate	22.1% overestimate (effect of Great Recession)
2010	Too early to tell	Too early to tell

MPAC members had questions about why forecasted growth rates are lower in the future than in the past. Figure 1 shows how growth rates have declined over time as the metropolitan area has matured. Even though growth continues in absolute numbers, growth rates decline because the increment of growth becomes a smaller share of the existing population base.

Figure 1: annual average population growth rates by decade



Staff also presented information about how the new preliminary baseline population forecast compares with other forecast sources. Table 2 attempts to summarize this information.

Table 2: comparison of Metro's 2014 preliminary baseline population forecast with other sources

Annual percentage rate (2010 to 2040)	Geography	Forecast source
1.0%	Metro region (7 counties)	Metro 2014 preliminary baseline forecast (range forecast TBD)
1.1%	Metro region (7 counties)	OR Office of Economic Analysis (2013) Washington Office of Financial Analysis (2012)
1.1%	Metro region (7 counties)	IHS Global Insight (Sept 2013)
1.0%	Oregon State	OR Office of Economic Analysis (2013)
1.2%	Oregon State	U.S. Census (2005)
0.8%	Oregon State	IHS Global Insight (Oct 2013)
0.7%	U.S.	U.S. Census (2012)
0.7%	U.S.	IHS Global Insight (Nov 2013)
0.6%	U.S.	World Bank (2013)

Finally, MPAC expressed an interest in having staff express population growth numbers in ways that are more tangible and meaningful. Staff will work to provide MPAC and the Council with a variety of ways of understanding these forecast numbers at future meetings.

Willamette Falls

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