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

Metro | *Agenda*

Meeting: Transportation Policy Alternatives Committee (TPAC)
Date: Friday, Sept. 28, 2012
Time: 9:30 a.m. to 12 p.m. (noon)
Place: Metro, Council Chamber

9:30 AM	**1.**		**Call to Order and Declaration of a Quorum**	**Elissa Gertler, Chair**
9:35 AM	**2.**		**Comments from the Chair and Committee Members** • TPAC Community Representative Recruitment • High Speed Rail Update	
9:45AM	**3.**		**Citizen Communications to TPAC Agenda Items**	
9:50 AM	**4.**	*	**Consideration of the TPAC Minutes for Aug. 31, 2012**	
9:55AM	**5.**	#	Expanded National Highway System (NHS) Designations from MAP-21 – INFORMATION • *Purpose*: Update TPAC on the current FHWA/ODOT process for limited review of the expanded NHS designations adopted as part of the MAP-21 legislation, and future opportunities for further refining the system. • *Outcome*: Understanding by TPAC of current and planned processes and opportunities for reviewing and refining NHS designations.	**Rian Windsheimer, ODOT** **Satvinder Sandhu, FHWA**
10:05 AM	**6.**	*	Implementing the Regional Transportation Safety Plan Recommendations – DISCUSSION • *Purpose*: Present proposal for implementing safety recommendations. • *Outcome*: TPAC input on framing the October JPACT discussion.	**Josh Naramore**
11 AM	**7.**	*	Direction on the 2015-18 Metropolitan Transportation Improvement Program– INFORMATION/ DISCUSSION • *Purpose*: Discuss staff proposal based on September JPACT direction. • *Outcome*: TPAC direction on staff proposal for October JPACT discussion.	**Josh Naramore** **Ted Leybold**

Continued on back…

12 PM **8.** **ADJOURN** **Elissa Gertler, Chair**

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

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

2012 TPAC Work Program
9/18/12

August 31, 2012 – Regular Meeting	**September 28, 2012 – Regular Meeting**
• Amend the 2012-13 Unified Planning Work Program (UPWP) to Add the OR8/OR47 Intersection Planning Project – Action • Possible Comment Letter on the Portland Metro Area Scenario Planning – Discussion • Proposed 2015-18 MTIP Process and Schedule – Discussion • Contextual Influences on Trip Generation (OTREC report) – Information	• Expanded National Highway System (NHS) Designations from MAP-21 – Information • Proposed 2015-18 TIP process and schedule – Discussion • Safety Action Plan – Information
October 26, 2012 – Regular Meeting	**November 30, 2012 – Regular Meeting**
• Climate Smart Communities Scenarios – Discussion • Population & Employment Forecast Distribution– Information	• Climate Smart Communities Scenarios – Discussion • 2012-15 MTIP amendments to Transportation System Management and Operations (TSMO) fund – Action • Regional Travel Options Recommendation and Grant Criteria – Discussion • Active Transportation Plan Existing Conditions Findings/ Network Concepts – Information

Parking Lot:

- Least cost planning
- Metropolitan Planning Area boundary update

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

Metro | *Making a great place*

TRANSPORTATION POLICY ALTERNATIVES COMMITTEE
August 31, 2012
Metro Regional Center, Council Chamber

MEMBERS PRESENT	AFFILIATION
Andy Back	Washington County
Karen Buehrig	Clackamas County
David Eatwell	Community Representative
Elissa Gertler, Chair	Metro
Carol Gossett	Community Representative
Heidi Guenin	Community Representative
Nancy Kraushaar	City of Wilsonville Representing Cities of Clackamas Co.
Katherine Kelly	City of Gresham, Representing Cities of Multnomah Co.
Scott King	Port of Portland
Alan Lehto	TriMet
Margaret Middleton	City of Beaverton, Representing Cities of Washington Co.
Karen Schilling	Multnomah County
Satvinder Sandhu	Federal Highway Administration
Paul Smith	City of Portland
Rian Windsheimer	Oregon Department of Transportation

MEMBERS EXCUSED	AFFILIATION
Chris Beanes	Community Representative
John Hoefs	C-TRAN
Nancy Kraushaar	City of Oregon City, Representing Cities of Clackamas Co.
Dean Lookingbill	Southwest Washington Regional Transportation Committee
Dave Nordberg	Oregon Department of Environmental Quality
Charlie Stephens	Community Representative
Sharon Zimmerman	Washington State Department of Transportation

ALTERNATES PRESENT	AFFILIATION
Lainie Smith	Oregon Department of Transportation

STAFF: Ted Leybold, Daniel Kaempff, Tom Kloster, Robin McArthur, Lake McTighe, John Mermin, Josh Naramore, Kelsey Newell, Dylan Rivera, Marc Week.

1. CALL TO ORDER AND DECLARATION OF A QUORUM

Chair Elissa Gertler declared a quorum and called the meeting to order at 9:36 a.m.

2. COMMENTS FROM THE CHAIR AND COMMITTEE MEMBER

Mr. John Mermin of Metro provided an update on the Regional Transportation Functional Plan - Extension and Exemption processes. The RTFP is part of Metro Code and implements the policies

contained in the Regional Transportation Plan. During the Spring of 2012 Metro adopted a streamlined process for exemptions and extensions to be issued by its COO. To efficiently handle the large volume of requests for extensions and exemptions, Metro staff has proposed a batched process, whereby jurisdictions submit requests during designated windows this Fall. Metro Staff is requesting that extension requests be submitted in the first two weeks of October.

Chair Gertler noted that it is time for TPAC Community Representative Recruitment. There are a couple of vacancies and expiring terms. Chair Gertler asked the committee what membership the committee members thought would add value to TPAC. Members stated that they wanted representatives from the freight community, health and equity, and the business community.

Mr. Andy Back discussed the RTO sub-allocation process. Mr. Back noted that it was his sense that JPACT members may have concern over the RTO programs as opposed to using funds to build things. In the earlier discussion on an unspecified allocation to local jurisdictions, the perception of the strategic plan process was that the local allocation would be significant, 50 percent or more. Mr. Back stated that he heard that at the RTO sub-committee level was not talking about a 50 percent figure. Mr. Back stated that if the proposal brought to JPACT did not commiserate with the local expectation was, the process might stall. The local share figure may need to go back to the JPACT beforehand.

3. CITIZEN COMMUNICATIONS TO TPAC ON NON-AGENDA ITEMS

There was none.

4. CONSIDERATION OF THE TPAC MINUTES FOR JULY 27, 2012

The committee noted that Lynda David was not at the meeting but was marked present in the minutes. The committee also noted a few typos in the document.

MOTION: Mr. Alan Lehto moved, Mr. Paul Smith seconded, to approve the Transportation Policy Alternatives Committee (TPAC) minutes for June 29, 2012.

ACTION TAKEN: With all in favor, the motion passed.

5. AMEND THE 2012-13 UNIFIED PLANNING WORK PROGRAM (UPWP) TO ADD THE OR8/OR47 INTERSECTION

Mr. Josh Naramore of Metro introduced Resolution No. 12-4366. Resolution No. 12-4366 if adopted would amend the fiscal year 2012-13 unified planning work program (UPWP) to add funding for the OR8/OR47 intersection improvement project. This resolution is an amendment to the FY 2012-13 UPWP to add the OR 8/47 intersection improvement project. This project was awarded regional flexible funds by the Joint Policy Advisory Committee on Transportation (JPACT) and the Metro Council and was adopted as part of the 2012-15 Metropolitan Transportation Improvement Program (MTIP) by Resolution 12-4332

MOTION: Mr. Andy Back moved, Mr. Paul Smith seconded, to recommend that JPACT Approve Resolution No. 12-4366.

ACTION TAKEN: With all in favor, the motion passed.

6. POSSIBLE COMMENT LETTER ON THE PORTLAND METRO AREA SCENARIO PLANNING

Mr. Tom Kloster of Metro discussed the possibility of forming a comment letter to Land Conservation and Development Commission (LCDC) on the Proposed Administrative Rules for Portland Area Land Use and Transportation Scenario Planning. The proposed rules would require Metro - in coordination with area local governments and other agencies – to develop, evaluate and cooperatively select a preferred land use and transportation scenario for meeting state adopted targets for reducing greenhouse gas emissions from light vehicle travel by 20 percent by the year 2035. Mr. Kloster will be testifying at the LCDC hearing on September 20. There will be a hearing with one member of the LCDC on September 19 at the metro regional center. Mr. Kloster will report to TPAC once the rule has been approved.

7. PROPOSED 2015-18 METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM PROCESS AND SCHEDULE

Mr. Ted Leybold of Metro introduced the proposed 2015-18 Metropolitan Transportation Improvement Program (MTIP) program process and schedule and the new MTIP project manager Mr. Naramore. The Portland metropolitan region is preparing to prioritize transportation projects and program activities in developing the 2015-18 MTIP. The Regional Flexible Funds Allocation (RFFA) process is the Metro and JPACT administered allocation conducted as part of the development of the MTIP. Recent changes to the ODOT Statewide Transportation Improvement Program (STIP) have accelerated the Metro process for developing the next MTIP and RFFA. JPACT will have $98.56 million to allocate as part of the 2016-18 RFFA. Using the 2014-15 Regional Flexilbe Fund allocation to projects and programs as a baseline, the 2016-18 RFFA process will have an additional $37.78 million to allocate. Metro staff is seeking policy direction from the JPACT at their September meeting on the development of the MTIP, allocation of the regional flexible funds and direction on coordinating with the STIP process. Mr. Naramore proposed four questions to the committee to frame for JPACT:

- How to Coordinate between STIP and MTIP processes?
- How JPACT can provide input to the STIP and the proposed STIP Committee?
- In allocating the additional $37 million of RFFA funding, does JPACT wish to continue existing RFFA policy framework with some adjustments?
- Are there regional needs that are not currently addressed in the 2015-18 MTIP proposals?

The committee discussed the following items:

- The committee members clarified why MTIP was from years 2016-18. The MTIP will be a three-year allocation concurrent with the STIP.
- Committee members requested a side-by-side comparison between the STIP and MTIP schedule. Staff will prepare a comparison table for JPACT. Members stressed the desire to consider projects that may of just missed making it though one process, high on the other process.
- Members questioned if the proposed ODOT Region 1 STIP Committee would have the authority to use MTIP Funds. The $98 million RFFA will stay within the Metro boundary. While there are two separate funding sources, there may be a shared conversation on prioritization from overlapping membership.
- Committee members reminded the committee that the STIP stakeholder committee is not an ACT and that it should not be referred so to eliminate confusion.
- Committee members noted that the MPO and JPACT are federally mandated and the ACT cannot override the decisions of that body. Other members noted that the conversation between JPACT and the ACT could be used to coordinate and projects but not override the authority of JPACT.
- Members expressed concern on the speed of the STIP changes.
- The committee discussed three different framing options for JPACT for the additional $37 million in funding.

    - Use the existing polices of 25% - 75% ratio between Green Economy/Freight Initiatives and Active Transportation/Complete Streets categories
    - Redistribute the funding levels under new policy direction
    - Add new project policy categories to possibly include safety, industrial land access, jurisdictional transfers, TIGER building, and Corridor Implementation.
- The committee discussed other lessons learned from the previous allocation process
    - Update criteria based on new work or changing priorities.
    - Not enough funds to execute comprehensive projects.
    - Not able to implement corridor study priorities
    - Process allow to see all projects at once.
    - Projects eligible for funds from different requirements is there a way to make sure you can select joint projects
    - Committee weigh in but not nominating
    - Build on past conversation and plan efforts
    - CMAQ eligibility and performance based
    - Clarify who's making decisions
    - Allow coordination with large private industry

8. OREGON TRANSPORTATION RESEARCH & EDUCATION CONSORTIUM (OTREC) REPORT: CONTEXTUAL INFLUENCES ON TRIP GENERATION

Ms. Miranda Bateschell of Metro introduced Ms. Kelly Clifton of Portland State University (PSU). Ms. Clifton presented the study on Contextual Influences on Trip Generation. Trip Generation represents the state of the practice for estimating impacts of new development. Current data/methods focus on vehicle trips and are heavily biased toward suburban, automobile-oriented locations with no consideration of urban context of new development. OTREC's study attempts to understand the influence that context has on trip generation, with emphasis on desired futures; Develop a consistent approach to adjusting trip generation rates (ITE) in the Portland metropolitan area; and Determine adjustment rates for three specific land uses. The study came up with Urban Living Infrastructure (ULI) a weighted index of density & diversity for retail/service businesses areas with higher densities of desirable business types have higher ULI indices. Information and methods can be used for: Analyzing transportation impacts of new development and establishing planning targets based on desired mode shares.

The committee discussed the following items:

- The committee discussed the applicability of ULI in further works.
- Members encouraged OTREC to continue to look at trip length.

9. ADJOURN

Chair Kloster adjourned the meeting at 12:07 a.m.

Respectfully submitted,

Marcus Week
Recording Secretary

ATTACHMENTS TO THE PUBLIC RECORD FOR AUGUST 31, 2012

The following have been included as part of the official public record:

ITEM	DOCUMENT TYPE	DOC DATE	DOCUMENT DESCRIPTION	DOCUMENT NO.
7	Handout	08/31/12	Federal and State Capitol Investments in Portland metro area	083112t-01
7	PPT	8/31/12	2015-18 Metropolitan Transportation Improvement Program	083112t -02
7	Chart	08/16/12	OTC to Washington County on STIP	083112t -03
8	PPT	08/31/12	OTREC Contextual Influences on Trip Generation	083112t -04

Oregon Passenger Rail
Eugene - Portland
CHOOSING A PATH FORWARD

DRAFT Project Purpose and Need

DRAFT Project Purpose

The purpose of this project is to provide more convenient, rapid, and reliable passenger rail service between the Columbia River in the Portland metropolitan area and the Eugene-Springfield metropolitan area in a manner that will:

- Provide an efficient, safe, and cost-effective alternative to highway, bus, and air travel;
- Protect freight-rail carrying capability;
- Support the implementation of regional high speed rail in the Pacific Northwest Rail Corridor between the Eugene-Springfield metropolitan area and Vancouver, British Columbia;
- Promote planned economic development;
- Be sensitive to community and environmental impacts; and
- Integrate with local roadway, transit, bicycle, and pedestrian transportation networks.

DRAFT Project Need

Multiple transportation, land use, socio-economic, and environmental considerations drive the need for this project, including:

- Increasing intercity and regional travel demands;
- Limited rail system capacity and competing service needs;
- Declining state and local roadway funding;
- Congestion's effects on the economic viability of the corridor;
- Promoting transportation system safety and security; and
- Changing transportation demographics.

Oregon Passenger Rail
Eugene - Portland
CHOOSING A PATH FORWARD

Study Schedule

www.OregonPassengerRail.org

2012 | 2013 | 2014 | 2015

UNDERSTAND

OUTREACH 1

* Develop Purpose and Need & Goals and Objectives
- Identify a broad range of alternatives
* Develop evaluation criteria

EVALUATE

- Screen broad range of alternatives against Purpose and Need

OUTREACH 2

- Narrow down the list of alternatives. Evaluate remaining alternatives using evaluation criteria

OUTREACH 3

* Establish the range of alternatives to be further studied
- Publish Draft Tier 1 Environmental Impact Statement (EIS)

OUTREACH 4 PUBLIC HEARINGS ON DRAFT TIER 1 EIS

RECOMMEND

* Select Preferred Alternative
- Publish Final Tier 1 EIS
- Record of Decision (ROD)

- Key milestone
* Leadership Council makes recommendations

OUTREACH Public outreach, including public open houses, Corridor Forum meeting, and other outreach efforts such as newsletters, website updates, online surveys, email blasts, and news releases. These efforts will inform Leadership Council deliberations.

Oregon Passenger Rail EIS:
Three Phases

The Oregon Passenger Rail Environmental Impact Statement (EIS) process will be used by the Oregon Department of Transportation (ODOT) and the Federal Railroad Administration (FRA) to make an informed decision about the future of rail improvements in Oregon. FRA guidelines call for a tiered EIS process. The Tier 1 EIS will identify a general rail alignment, station locations, and service characteristics (such as number of daily trips, travel time objectives, and technology). After the Tier 1 decision has been made, a more detailed environmental analysis under a Tier 2 process may be required before constructing improvements. The study is divided into three general phases - *Understand*, *Evaluate*, and *Recommend*. Public input will be a critical part of the process. Each phase will include one or more rounds of outreach so that the public and key stakeholders can have a voice throughout the process.

UNDERSTAND

This is the initial phase, known as the official National Environmental Policy Act (NEPA) scoping phase, and its purpose is to identify issues and ensure that an appropriate range of alternatives will be considered through the EIS process. The main outcomes of this phase include:

- Develop the project Purpose and Need
- Develop the project Goals and Objectives
- Identify a broad range of alternatives
- Develop an evaluation framework that includes a set of criteria against which the alternatives can eventually be screened.

The *Understanding* phase will include public outreach and meetings to ask the public to weigh in on a draft Purpose and Need statement, and help shape the Goals and Objectives. The project team will also seek input on potential rail alignment alternatives.

EVALUATE

Following the *Understanding* this phase, alternatives will undergo two narrowing processes, both of which will offer opportunities for public involvement.

First, the broad range of alternatives will be screened against the project Purpose and Need. Members of the public will be invited to review the results of this screening and comment on how the screening was applied.

Then, the alternatives that "pass" the first screening will be evaluated against specific criteria developed in the *Understand* Phase. The result will be a narrowed list of alternatives that will move forward for more detailed analysis in the Draft EIS (DEIS). Again, the public will be asked to weigh in on how the criteria were applied and will deepen the project team's understanding of the trade offs and implications of each of the alternatives.

After these two screenings, the DEIS will be published. The public will have the opportunity to submit formal comments on the DEIS during Public Hearings.

RECOMMEND

Following the Public Hearings, the Leadership Council will recommend a Preferred Alternative based on the technical evaluation conducted in the DEIS and analysis of public and agency input. The environmental impacts of the Preferred Alternative will be documented in the Final EIS. Finally, the FRA will issue a Record of Decision (ROD) to document its formal decision on the Preferred Alternative.

Oregon Passenger Rail
Eugene - Portland

CHOOSING A PATH FORWARD

Oregon Department of Transportation

Newsletter - Summer 2012

Improving Passenger Rail in Oregon

ODOT is just beginning a study to improve passenger rail service between the Portland urban area and the Eugene-Springfield urban area. This 125-mile segment in Oregon is part of the Pacific Northwest Rail Corridor that stretches between Eugene, Oregon and Vancouver, B.C. The study will help decide on a general passenger rail route and evaluate options for train frequency, trip time, and improving on-time performance. This study is sponsored by the Federal Railroad Administration.

Setting the stage to improve passenger rail

Current Amtrak Cascades service between Eugene and Portland includes two round trips per day, a two hour and 35 minute trip each way. In order to position Oregon for federal funding to improve passenger rail, the state must complete a study, called a Tier 1 Environmental Impact Statement.

We are currently in “scoping” - an early step in the process to identify issues to be addressed. It is an important opportunity for public input. *Keep reading to learn more about meetings in your community and ways to provide your input.*

Why Rail?

Annual Amtrak Cascades ridership has grown significantly over the past five years. Over the next 25 years, the population of the Willamette Valley is expected to grow by approximately 35 percent, and freight volume in the state is expected to grow by 60 percent. This will result in travel demand that exceeds existing freight and passenger rail capacity.

ODOT is studying how improved passenger rail service can address increased travel demands, especially as funding for highway projects is in decline.

Participate online

Give us your ideas on rail improvements. Visit **www.OregonPassengerRail.org** between September 6 and 23 to participate in our virtual open house.

Amtrak pulling into Salem station.

You're Invited! Project Open Houses

ODOT is hosting scoping open houses throughout the project area to help identify issues and a range of rail alignment alternatives to be considered. Join us to learn more about the project, weigh in on a draft Purpose and Need statement, and help shape the Goals and Objectives. See the map below to find an open house in your community. *Free childcare will be available at all meetings.*

Portland *con interpretación en español*
Tuesday, September 18
5:00 p.m. - 7:00 p.m.
Metro Council Chambers
600 NE Grand Ave, Portland, OR 97232

Oregon City *con interpretación en español*
Tuesday, September 11
5:00 p.m. - 7:00 p.m.
Clackamas Community College
Gregory Forum Room A
19600 Molalla Ave, Oregon City, OR 97045

Lake Oswego/Tualatin
Thursday, September 13
5:00 p.m. - 7:00 p.m.
Phoenix Inn
14905 Bangy Rd, Lake Oswego, OR 97035

Salem *con interpretación en español*
Thursday, September 6
5:00 p.m. - 7:00 p.m.
ODOT Transportation Building
Gail Achterman Conference Room
355 Capitol St NE, Salem, OR 97301

Albany
Wednesday, September 12
5:00 p.m. - 7:00 p.m.
Albany Public Library Meeting Room
2450 14th Ave SE, Albany, OR 97322

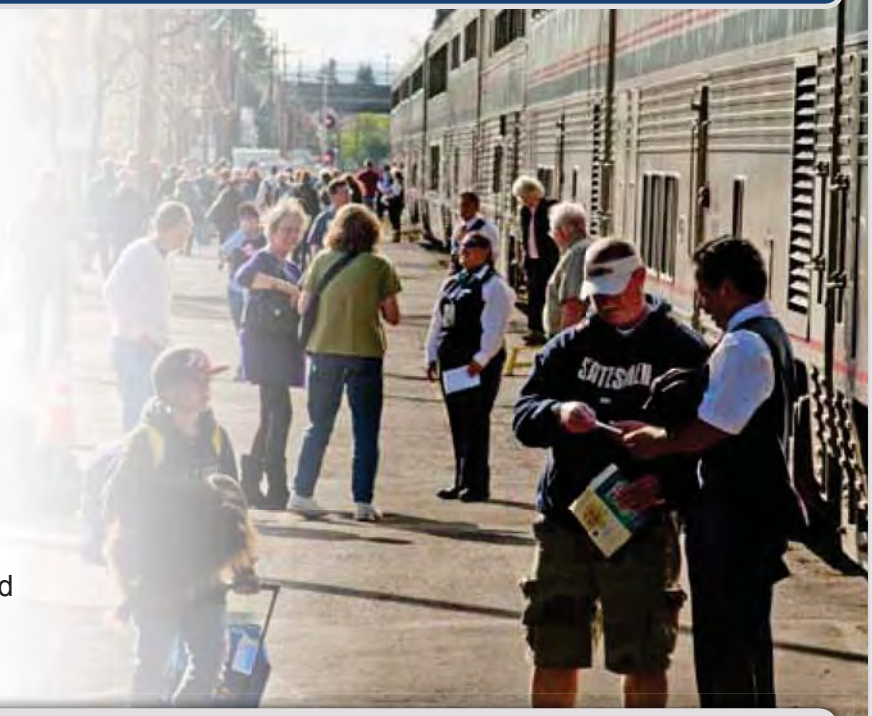
Eugene/Springfield
Wednesday, September 19
5:00 p.m. - 7:00 p.m.
Atrium Building, Lobby
99 West 10th Ave, Eugene, OR 97401

Accommodation Information for People with Disabilities

Information is available in alternative formats upon request. Accommodations will be provided to persons with disabilities. To request an accommodation to participate in meetings, please call Jyll Smith at (503) 986-3985 or statewide relay 7-1-1 at least 48 hours prior to the meeting.

Where we are now in this study: *Understand Phase*

The Oregon Passenger Rail study is divided into three general phases - *Understand*, *Evaluate*, and *Recommend*. Currently, we are in the *Understand* phase, known as Scoping under the National Environmental Policy Act. Its purpose is to identify issues and ensure an appropriate range of alternatives will be considered through the study. The main outcomes of this phase include: developing the project Purpose and Need plus Goals and Objectives; identifying a broad range of rail route alternatives; and developing an evaluation framework that includes a set of criteria against which the potential benefits and impacts of alternatives can be compared.



2012 2013 2014 2015

UNDERSTAND

OUTREACH 1

- Develop Purpose and Need & Goals and Objectives
- Identify a broad range of alternatives
- Develop evaluation criteria

* We are here

EVALUATE

- Screen broad range of alternatives against Purpose and Need

OUTREACH 2

- Narrow down the list of alternatives
  Evaluate remaining alternatives using evaluation criteria

OUTREACH 3

- Establish the range of alternatives to be further studied
- Publish Draft Tier 1 Environmental Impact Statement

OUTREACH 4 PUBLIC HEARINGS ON DRAFT TIER 1 EIS

RECOMMEND

- Select Preferred Alternative
- Publish Final Tier 1 EIS
- Record of Decision

● Key milestone

OUTREACH Key public input point, including public open houses, committee meetings, and other outreach efforts such as newsletters, website updates, online surveys, email blasts, and news releases.

What do you think about passenger rail?

You're invited to attend an open house this September

The Oregon Department of Transportation is beginning a study to improve passenger rail in Oregon between Eugene and Portland. We invite you to learn more about the project and provide your feedback at one of six open houses in the study area *(see inside)*. ODOT wants to know what is important to you. While we encourage your feedback throughout the study, please submit comments by October 31, 2012 to be considered as part of the scoping phase.

Tell us what's important to you...

There are many ways to learn about the project and provide your comments:

- Attend an open house (details inside).
- Participate in our online open house at *www.OregonPassengerRail.org* (Sept. 6 to 23).
- Submit a scoping comment form online (through October 31).
- Email us: *info@oregonpassengerrail.org.*
- Contact Jyll Smith, ODOT Public Information Officer at (503) 986-3985 or ODOT Major Projects Branch, 3210 Del Webb Ave NE, St 110, Salem, OR 97301

Oregon Department of Transportation

1110 SE Alder St, Suite 301
Portland, OR 97214

600 NE Grand Ave.
Portland, OR 97232-2736
503-797-1700
503-797-1804 TDD
503-797-1797 fax

www.oregonmetro.gov

Metro | *Memo*

Date: September 20, 2012

To: TPAC and interested parties

From: Josh Naramore, Senior Transportation Planner

Re: Implementing the Regional Transportation Safety Plan Recommendations

---

Since fall 2009, responding to a Federal Highway Administration recommendation, Metro has been working with the Regional Safety Workgroup to better integrate safety into the transportation planning process. The Workgroup is comprised of the Metro region's cities and counties, Metro, TriMet, ODOT, researchers from Portland State University and practitioners specializing in transportation safety. The Workgroup recently completed a Regional Transportation Safety Plan (RTSP), the first of its kind for this region with the goal to help the region meet the RTP target for reducing fatalities and serious injury crashes.

At the June 14 JPACT meeting, Metro staff presented the safety findings and recommendations. JPACT directed Metro staff to develop a strategy to implement the safety recommendations. Staff has been working with local partners and staff from other MPOs in other regions in drafting a proposal to effectively begin to reduce fatalities and sever injuries on the regional transportation system. Staff has been working with federal, state and local partners to identify potential resources to fund the safety pilot program. Recent changes to ODOT STIP process and 2015-18 MTIP process have accelerated the timeline for being able to apply for state and federal resources to support the Regional Safety pilot program. Metro staff will be engaging JPACT at their October 11 on implementation of the safety plan recommendations and TPAC will be asked to provide input on how to frame the JPACT discussion.

BACKGROUND

The Portland Metro region, with a population of about 1.6 million, comprises almost 40 percent of the state's population. Between 2007 and 2009 there were more than 18,000 crashes including 159 fatalities and 1,444 crashes resulting in a severe injury in the region. This represents 43% of the state's crashes, 14% of its fatalities, and 36% of its serious injury crashes. The annual economic cost to the region of these crashes is estimated at $958 million[1]. It is the Portland Metro region's adopted goal to reduce the number of pedestrians, bicyclists, and automobile occupants killed or severely injured on the region's roadways each by 50% by 2035 compared to 2005. A 50% reduction in all crash types would therefore be a saving of $479 million annually in economic costs to the Metro region.

In 2012 Metro and its partners completed the first Regional Transportation Safety Plan (RTSP), which identified regional multimodal crash trends and recommendations to meet the 2035 RTP target. The RTSP serves as a data-driven framework and specifically urban-focused plan to reduce fatalities and serious injuries in the Portland Metropolitan region. The key findings from the data are:

- Arterials have the highest serious crash rate for all modes.

---

[1] *Oregon Department of Transportation, Comprehensive Economic Value per Crash table,* http://www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/docs/excel/BC_Form.xls

- Alcohol and drugs are primary contributing factors to fatal crashes.
- Speeding and aggressive driving are the leading contributing factors toward serious crashes.
- Serious pedestrian crashes are disproportionately represented after dark.
- Serious nighttime pedestrian and bicycle crashes occur disproportionately where street lighting is not present.
- Streets with more traffic lanes have particularly high serious pedestrian crash rates per mile and per VMT.

Identifying the trends in the data influenced the development of key recommendations to meet the RTP target for reducing fatalities and serious injuries for all crashes by 50 percent. The key recommendations are:

- Develop an arterial safety program to identify high crash arterials and develop targeted strategies to make these corridors safer.
- Develop targeted strategies to reduce the prevalence of driving under the influence of alcohol and drugs, speeding and aggressive driving.
- Focus on improved pedestrian crossings including lighting, particularly on multi-lane arterials.
- Focus on providing protected bicycle facilities along high-volume and/or high-speed roadways such as buffered bike lanes, cycle tracks, multi-use paths, or low-traffic alternative routes.
- Emphasize bicycle and pedestrian safety as part of the Regional Active Transportation Plan currently underway.

IMPLEMENTING THE RTSP RECOMMENDATIONS

The proposal is to fund a Regional Safety pilot for three years. **Table 1** shows an estimate of the resources needed to effectively implement each safety recommendation. Annually, full implementation of the safety plan recommendations would cost $5.183 million. Resources to cover staffing would account for 3.7 percent ($183,000) of the total program cost and the remaining 96.3 percent would fund the arterial safety improvements on the two identified facilities.

Implementation of a truly integrated safety program needs to address all of the five “E’s” of safety: education, emergency medical service (EMS), enforcement, engineering and evaluation. The arterial safety program primarily focuses on the engineering “E” of safety. The staffing for the behavioral and active transportation recommendations will incorporate education, EMS and enforcement. Evaluation and tracking performance is also a critical component of all three safety plan recommendations. The staffing for each recommendation includes support of the work of a safety data analyst. This position would collect the ODOT crash data annually, provide data support to local jurisdictions during transportation system plan and project development, and develop an annual safety data report to monitor the region’s safety performance in meeting the adopted RTP goal for reducing fatalities and severe injury crashes. Additionally, performance evaluation and reporting are key new requirements from MAP-21.

The total funds for full implementation of a three year Regional Safety pilot would require $15,549,000. Roughly 96 percent of all of the funding would implement multimodal safety improvements to 6 of the highest crash arterials in the region. Of the roughly 4 percent covering staffing, two-thirds would support the multimodal arterial safety investments. The staffing for the behavioral factors would seek to develop more funding support for local enforcement actions and educational support. The active transportation safety staffing would provide local technical assistance in project development.

FUNDING THE RTSP RECOMMENDATIONS

Funding the Regional Safety pilot will need to involve a federal, state, regional and local partnership. Metro staff has been working with federal, state and local partners to identify potential resources to fund the safety pilot program. Recent changes to ODOT STIP process and 2015-18 MTIP process have accelerated the timeline for being able to apply for state and federal resources to support the Regional Safety pilot. The following is a potential proposal to fund the three year Regional Safety pilot for discussion purposes:

- Partnership between the 2015-18 ODOT Fix-It funds and 2016-18 regional flexible funds
- Fund Regional Safety pilot for three years at $5.183 million per year
- After three years, Regional Safety pilot program will report back to JPACT on performance and impacts of safety investments

At the July 12 meeting, JPACT requested information on how to implement a Regional Safety pilot. At the September 28 meeting, Metro staff will seek TPAC direction and input on this proposal prior to the October 11 JPACT discussion.

To submit questions, comments, or request any additional information, contact Josh Naramore at 503-797-1825 or joshua.naramore@oregonmetro.gov.

Table 1 – Resources to Implement the Regional Transportation Safety Plan Recommendations

RTSP Recommendation	Tangible Products	FTE	Annual Costs
1. *Behavioral Factors* – reduce the prevalence of driving under the influence of alcohol and drugs, speeding and aggressive driving. Convene a workgroup of safety service professionals, including law enforcement and EMS etc. to address these contributing factors.	• Develop strategy for coordinating regional safety education campaigns. • Identify resources to fund more local enforcement actions. • Best practices toolkit for effective safety education and outreach. • Integrate behavioral factors into the arterial safety projects.	0.3	• $36,000 for staffing TOTAL - $36,000
2. *Arterial Safety* – identify the highest crash arterials and develop targeted strategies to make these corridors safer. Emphasize multimodal corridor safety.	• Regional scorecard to identify highest priority arterials for safety investments to most effectively use funds (Year 1 only). • Conduct 2 road safety audits or comparable approach on high priority arterials to develop projects and fund each facility with $2.5 million for multimodal safety improvements. • Annual update of regional safety data to demonstrate performance towards RTP goal.	0.7	• $90,000 for staffing • $30,000 for consultant assistance for two audits • $5,000,000 for capital improvements to the two selected arterials TOTAL - $5,120,000
3. *Active Transportation Safety* – incorporate safety findings and recommendations into the Regional Active Transportation Plan and future local, regional and state project development.	• Develop guidelines for improving pedestrian crossings, pedestrian lighting issues at intersections, and providing protected bike facilities where feasible on multilane roadways. • Develop projects for local, regional, and state funding. • Provide local technical assistance in development of active transportation projects and addressing bike and pedestrian safety.	0.2	• $27,000 for staffing TOTAL - $27,000
	TOTAL	1.2	$5,183,000
			TOTAL REQUEST: 15,549,000 for 2013-2015

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

Metro | *Memo*

Date: September 20, 2012

To: TPAC members and interested parties

From: Josh Naramore, Senior Transportation Planner

Subject: Direction on the 2015-18 Metropolitan Transportation Improvement Program (MTIP)

Metro staff received policy direction from the Joint Policy Advisory Committee on Transportation (JPACT) at the September 13 meeting on the development of the MTIP, allocation of the regional flexible funds and direction on coordinating with the STIP process. At the September 28 meeting TPAC will be asked to provide:

- Input and direction on how to frame the 2016-18 regional flexible fund allocation (RFFA) policy direction for the October 11 JPACT discussion.

STIP/MTIP Coordination & Public Input

With the recent changes to the STIP process, Metro and ODOT staff have been working to coordinate the MTIP and STIP calendars. Additionally, there has been recent OTC direction on creation of an entity much like an Area Commission on Transportation (ACT) for the Portland metropolitan region for this STIP cycle. This new entity will be referred to as the Region 1 STIP Committee. JPACT, as the federal metropolitan planning organization (MPO) for the region has an opportunity to provide policy direction in the coordinated development of the STIP projects. The joint TIP calendar in **Attachment 1** highlights the opportunities for JPACT to influence both the development of the STIP and MTIP:

- In December 2012, ODOT Region 1 would distribute STIP projects to JPACT.
- In February 2013, JPACT would provide input on the 150 percent STIP projects to the Region 1 STIP Committee.
- In June 2013, Metro would conduct a 30-day public comment period on proposed RFFA projects and the STIP 150 percent projects
- In August 2013, JPACT would provide input on the STIP projects to the Region 1 STIP Committee and recommend projects to receive regional flexible funds.

Metro staff received support from JPACT on the TPAC recommendation proposing a joint MTIP/STIP calendar and will be moving forward with it as part of the 2015-18 MTIP.

Metro, as the region's MPO has a federally required Public Involvement Plan. It requires that Metro provide public input opportunities on the MTIP.

1) Metro staff recommendation –Metro staff is developing a proposal for how to receive input on the 2015-18 MTIP that will be presented at the September 28 TPAC meeting.

MAP-21 Changes

The Moving Ahead for Progress in the 21st Century Act (MAP-21) was signed into law in July 2012. It funds surface transportation programs at over $105 billion for fiscal years (FY) 2013 and 2014. MAP- 21 streamlined and consolidated many funding programs and emphasizes performance-based transportation investments. These MAP-21 changes will need to be reflected in the development of the 2015-18 MTIP. As part of the consolidation of funding programs:

- Off-NHS system bridges now covered by Urban STP for eligibility
- Transportation Alternatives (consolidated from Transportation Enhancements, Recreational Trails, and Safe Routes to Schools) are now 50 percent distributed by population, including directly to Transportation Management Areas (TMAs)[1] that are required to utilize a competitive allocation process
    - $1.7 million per year (total of $5.1 million for 2016-18)

2) Metro staff recommendation: Add both Transportation Alternatives and off-NHS bridges as eligible projects for the 2016-18 RFFA policy categories.

MAP-21 also contains provisions for MPOs to establish performance targets:

- MPOs establish targets to track progress towards attainment of outcomes for the region
- Performance targets established in coordination with state and public transportation providers
- Targets established no later than 180 days after the state or public transportation providers establish performance targets
- MTIP must estimate anticipated progress toward performance targets from investments

3) Metro staff recommendation: MTIP performance targets for the project criteria for all RFFA policy categories will be developed using the 2035 RTP performance targets listed below:

a) *Safety* **–**By 2035, reduce the number of pedestrian, bicyclist, and motor vehicle occupant fatalities plus serious injuries each by 50% compared to 2005.
b) *Congestion* – By 2035, reduce vehicle hours of delay (VHD) per person by 10 percent compared to 2005.
c) *Freight reliability* – By 2035, reduce vehicle hours of delay truck trip by 10 percent compared to 2005.
d) *Climate change* – By 2035, reduce transportation-related carbon dioxide emissions by 40 percent below 1990 levels.
e) *Active transportation* – By 2035, triple walking, biking and transit mode share compared to 2005.
f) *Basic infrastructure* – By 2035, increase by 50 percent the number of essential destinations[2] accessible within 30 minutes by trails, bicycling and public transit or within 15 minutes by sidewalks for all residents compared to 2005.
g) *Clean air* – By 2035, ensure zero percent population exposure to at-risk levels of air pollution.
h) *Travel* – By 2035, reduce vehicle miles traveled per person by 10 percent compared to 2005.

[1] Transportation Management Areas (TMAs) are urbanized areas/metropolitan planning organizations (MPOs) that a population greater than 200,000. Metro serves as the MPO and TMA for the Portland Metro region.

[2] Consistent with the evaluation methodology used for the High Capacity Transit plan, essential destinations are defined as: hospitals and medical centers, major retial sites, grocery stores, elementary, middle and high schools, pharmacies, parks/open spaces, major social service centers (with more than 200 monthly LIFT pick-up counts), colleges and universities, employers with greater than 1,500 employees, sports and attraction sites and major government sites.

i) *Affordability* – By 2035, reduce the average household combined cost of housing and transportation by 25 percent compared to 2000.
j) *Access to daily needs* – By 2035, increase by 50 percent the number of essential destinations accessible within 30 minutes by bicycling and public transit for low-income, minority, senior and disabled populations compared to 2005.

JPACT Direction

TPAC recommended to JPACT to consider policy options for the 2016-18 RFFA that retain funding for the policy direction from the 2014-15 RFFA. The recommendation was to focus on allocating the additional $37.78 million to new project policy categories. At the September 13 JPACT meeting, Metro staff presented three options for how to spend the $37.78 million: Option 1, invest using the same 75-25 percent split the region did in 2010; Option 2, split the money by different percentages; Option 3, invest in those two categories and some new project categories. JPACT directed Metro staff to work with TPAC to further refine a policy direction around Option 3. Table 1 shows the levels of funding as part of Option 3.

Table 1 – Breakdown of Available 2016-18 Regional Flexible Funds

1. CMAQ , TA and STP-U for the Portland Metropolitan region for 2016-18	**TOTAL**
	$146.56 million
a) HCT System Construction Commitment for 2016-18	$48 million
b) Region wide programs for 2016-18 • Regional Travel Options - $7.01 million • Transit Oriented Development - $9.19 million • Transportation System Management & Operations - $4.64 million • Regional Planning (In-Lieu of Dues) - $3.63 million • Corridor & Systems Planning - $1.54 million	$26.01 million
c) Active Transportation/Complete Streets for 2016-18	$26.07 million
d) Green Economy/Freight Initiatives for 2016-18	$8.7 million
2. Subtotal - Continuing Funding for 2014-15 policies for 2016-18	**$108.78 million**
3. Remaining funding for 2016-18 RFFA allocation	**$37.78 million**

Below is the language from the September 13 JPACT memo as a reminder for Option 3:

Option 3 – Add new project policy categories

- For the additional $37.78 million, allocate funds to a combination of Green Economy/Freight Initiatives and Active Transportation/Complete Streets as well as newly identified project categories. TPAC identified the following potential new project categories:
  - Corridor plan implementation
  - Safety
  - Industrial land access
  - Jurisdictional transfers
  - TIGER IV projects

At the September JPACT discussion, Metro staff was directed to develop a proposal for JPACT to discuss in October. The proposal should prioritize investments that:

- Address economic opportunity and job creation
- Take a system wide approach
- Leverage private sector investments
- Consider corridor safety
- Reflect criteria from Transportation Investment Generating Economic Recovery (TIGER)
- Implement corridor planning work
- Improve access to industrial lands

The only potential project category that did not receive general support from JPACT for further consideration was jurisdictional transfers. Based on the JPACT feedback, Metro staff has started to develop a proposal for TPAC to help refine for the October 11 JPACT meeting.

4) Metro staff recommendation – Develop a Regional Economic Opportunity Fund. This fund would support projects that focus on economic opportunity, take a system wide approach, leverage private sector investments, implement corridor plans, and focus on access to industrial lands. The funding level would be determined by JPACT. Project criteria for this fund would be developed considering:

i. TIGER criteria
ii. Community Investment Initiative recommendations
iii. Greater Portland Export Plan – Metro Export Initiative findings and recommendations
iv. Regional Industrial Site Readiness Project

More information on each of these is available in **Attachment 2**.

5) Other considerations

- Invest in a Regional Safety pilot to implement the Regional Transportation Safety Plan recommendations at a funding level determined by JPACT.

To help guide the September 28 TPAC discussion Metro staff has included the following information materials:

- Attachment 1 –Joint TIP Calendar – 2015-18 MTIP and STIP
- Attachment 2 – Additional Background Information on Potential Regional Economic Opportunity Fund Criteria

To submit questions, comments, or request any additional information, contact Josh Naramore at 503-797-1825 or joshua.naramore@oregonmetro.gov.

PROPOSED 2015-18 TIP Schedule

2015-18 MTIP and STIP Development

2012

Fall

September 13 – JPACT direction on joint MTIP/STIP calendar and preferred option for 2016-18 RFFA
September 20 – STIP Enhance application process begins
October 11 – JPACT refine preferred option for allocating 2016-18 regional flexible funds
October 16 – OTC meeting with ACT chairs to discuss STIP process
November 8 – JPACT and Metro Council action on policy direction for 2016-18 RFFA
November 27 – STIP enhance applications due to Region 1

Winter

- Review of existing performance measurement data (part of federal Congestion Management Process)

December - Release 2016-18 RFFA solicitation packet
December 6 – STIP project applications distributed to JPACT and Region 1 STIP Committee*

2013

Winter/Spring

-Review region-wide programs (TOD, RTO, TSMO, Corridor Development, TriMet & SMART 5307)
-Review TriMet 5-year Transit Investment Plan

February 14 – JPACT provides input on the 150 percent STIP projects to the Region 1 STIP Committee*
February 15 – RFFA applications due and begin evaluation of projects
March 15 – Region 1 STIP Committee submit 150 percent recommendations to ODOT Region 1
(March – July – ODOT Region 1 scopes the 150 percent list of STIP projects)
March 21 – ODOT Region 1 provide the 150 percent STIP projects to TDD for distribution to OTC, OFAC and Joint TE-OBPAC Committee

Summer/Fall

June 1 – June 30 – Metro conduct joint public comment period on RFFA projects and ODOT Region 1 STIP 150 percent list*
June 19 – OTC, OFAC and Joint TE-OBPAC Committee provide input on 150 percent list
July 22 – ODOT Region 1 provides STIP project scoping information to Area Managers and Region 1 STIP Committee chair. STIP Committee and Region 1 begin developing project recommendation lists.
July and August – Narrow RFFA projects.
August 8 – JPACT provides input to the Region 1 STIP Committee on the STIP projects.*
August 23 – TPAC recommendation to JPACT for adoption of 2016-18 RFFA projects and 2015-18 MTIP.
September 12 – JPACT and Metro Council adopt 2016-18 RFFA projects and 2015-18 MTIP.

Fall/Winter

Submit proposed MTIP to ODOT for inclusion in Draft STIP by Oct 1
Region STIP Coordinators upload project list into PCSX by Oct 31

October 4 – ODOT regions provide STIP project recommendations to TDD for compilation and OTC consideration.
October 7 – November 13 – OTC review of STIP project recommendations and allocation of discretionary 20 percent.

November/December – Draft STIP prepared for public review process

2014

Jan

OTC & JPACT release STIP & MTIP for public review

March 1

Public review of Draft TIPs complete

March - June

JPACT/Council act on any adjustments based on public comments (March TPAC, April JPACT)
Air quality conformity analysis and determination process

June – July

Final STIP prepared and reviewed with ACTs, MPOs, other stakeholders

August

OTC review and approve Final 2015-18 STIP

September

FHWA/FTA approval of STIP and air quality conformity of MTIP

Bold and italicized items are the proposed points for coordinating the STIP and MTIP process

Additional Background Information on Potential Regional Economic Opportunity Fund Criteria

TIGER (http://www.dot.gov/tiger/index.html) – The Transportation Investment Generating Economic Recovery, or TIGER Discretionary Grant program was created by the USDOT to invest in road, rail, transit and port projects that promise to achieve critical national objectives. Each project is multi-modal, multi-jurisdictional or otherwise challenging to fund through existing programs. The criteria include:

Primary Selection Criteria:

Long-Outcomes: The Department will give priority to projects that have a significant impact on desirable long-term outcomes for the Nation, a metropolitan area, or a region. The following

- State of Good Repair: Improving the condition of existing transportation facilities and systems, with particular emphasis on projects that minimize life-cycle costs.
- Economic Competitiveness: Contributing to the economic competitiveness of the United States over the medium- to long-term.
- Livability: Fostering livable communities through place-based policies and investments that increase transportation choices and access to transportation services for people in communities across the United States.
- Environmental Sustainability: Improving energy efficiency, reducing dependence on oil, reducing greenhouse gas emissions and benefitting the environment.
- Safety: Improving the safety of U.S. transportation facilities and systems.

Job Creation and Economic Stimulus: While the TIGER Discretionary Grant program is not a Recovery Act program, job creation and economic stimulus remain a top priority of this Administration; therefore, DOT will give priority to projects that are expected to quickly create and preserve jobs and stimulate rapid increases in economic activity, particularly jobs and activity that benefit economically distressed areas.

Secondary Selection Criteria:

Innovation: DOT will give priority to projects that use innovative strategies to pursue the long-term outcomes outlined above.

Partnership: DOT will give priority to projects that demonstrate strong collaboration among a broad range of participants and/or integration of transportation with other public service efforts.

The Department will give more weight to the Long-Term Outcomes and Jobs Creation & Economic Stimulus criteria than to the Innovation and Partnership criteria. Projects that are unable to demonstrate a likelihood of significant long-term benefits in any of the five long-term outcomes will not proceed in the evaluation process. For the Jobs Creation & Economic Stimulus criterion, a project that is not ready to proceed quickly is less likely to be successful.

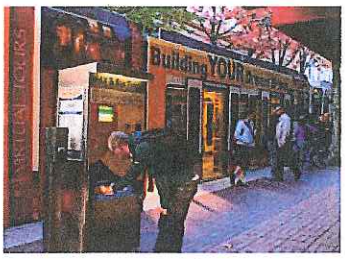
Community Investment Initiative (CII) (http://communityinvestmentinitiative.org/) – The CII is comprised of a group of leaders from the Portland Metropolitan region's business, community and public sector, committed to building the region's economy through infrastructure investment to create and sustain living-wage jobs. In June 2012 Leadership Council of the CII adopted and published a strategic plan that was presented to JPACT at the July 12 meeting. The regional strategy lays out four strategies:

1. Invest in the roads, highways, water and sewer networks and other infrastructure our communities need to prosper.
2. Foster conditions that support development ready communities.
3. Ensure the reliable and efficient movement of goods and people across the region.
4. Protect and enhance our communities' investments in school facilities and properties, now and in the future.

Greater Portland Export Plan – Metro Export Initiative
(http://www.greaterportlandinc.com/economy/mei2012/) –On February 15, 2012 public- and private-sector leaders from the Portland Metropolitan region released the Greater Portland Metro Export Strategy, a plan to help local companies access global markets and grow local jobs. After a year of study in cooperation with the Brookings Institution, a new regional strategy has been developed that seeks to double regional exports in the next five years. The process was led by the Office of Mayor Sam Adams and the Portland Development Commission and an export task force that included the Port of Portland, Greater Portland Inc., Business Oregon, the U.S. Export Assistance Center and other regional stakeholders.

Regional Industrial Site Readiness Project - This project was conceived partly in response to Metro's 2009 Urban Growth Report, which identified a shortage of large-lot industrial sites in the region and in recognition of the need to replenish large-lot industrial sites as they are developed. This project report was produced by Group Mackenzie in partnership with Business Oregon, Metro, NAIOP - Commercial Real Estate Development Association Oregon Chapter, Port of Portland and Portland Business Alliance, whose representatives served as the Project Management Team (PMT). The report was published in August 2012 and contains findings and recommendations that should be incorporated into 2016-18 project criteria.

Materials following this page were distributed at the meeting.



You Tell Us

...your views on the transportation planning process in Portland/Vancouver area.

Transportation is the key...

The roads, rails, paths, and trails we travel from one place to another form the framework of our communities. Metropolitan Planning Organizations (such as the Regional Transportation Council of Southwest Washington and the Portland Metro), in coordination with the public, help identify future transportation needs and coordinate highway and transit investments in urbanized areas. The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) are responsible for certifying (every 4 years) that the planning processes of the Metropolitan Planning Organizations are consistent with Federal requirements. Representatives from FHWA and FTA will be conducting its review in October and want to hear your thoughts on the transportation planning process during two public meetings. The meeting schedule is:

Date: October 29, 2012
Time: 5:30pm to 7:00pm
Place: Vancouver Community Library
901 C Street, Columbia Room
Vancouver, WA 98660

Date: October 30, 2012
Time: 6:00pm to 7:30pm
Place: Metro Regional Center
600 NE Grand Avenue, Room 270
Portland, OR 97232

If you are unable to attend either of the meetings, please submit comments to:

Satvinder S. Sandhu
Federal Highway Administration
Satvinder.sandhu@dot.gov
Phone: (503) 316-2560

Ned Conroy
Federal Transit Administration
Ned.conroy@dot.gov
Phone: (206) 220-4318

Sidney Stecker
Federal Highway Administration
Email: Sidney.stecker@dot.gov
Phone: (360) 753-9555

Americans with Disabilities Act (ADA) Information
Individuals with disabilities requiring auxiliary aids/materials in alternate formats should contact Joshua Naramore at 503.797.1825 or joshua.naramore@oregonmetro.gov for Metro or Diane Workman at 360.397.6067 X 5214 or diane.workman@rtc.wa.gov for RTC.

Nominations for the Region 1 2015-2018 STIP Project Selection Committee

First	Last	Nominated By	Occupation or Elected Position
Jason	Tell		ODOT Region 1 Manager
Bill	Wyatt		Port of Portland, Executive Director
Sam	Adams		City of Portland, Mayor
Neil	Mcfarlane		TriMet General Manager
Carlotta	Collette		Metro Councilor, Chair of JPACT
Roy	Rogers	Washington	Washington County Commissioner
Monique	Beikman	Washington	City of Tualatin, Councilor
Philip	Wu	Washington	Kaiser Permanente Care Management Institute, Clinical Pediatric Lead
David	Mills	Washington	Kittelson & Associates, Portland Office Manager
Jamie	Damon	Clackamas	Clackamas County Commissioner
Donna	Jordan	Clackamas	City of Lake Oswego, Councilor
Joel	Halloran	Clackamas	Fred Meyer, Director of Transportation / Traffic
Stephan	Lashbrook	Clackamas	Wilsonville Transit Director
Ron	Rivers	Hood River	Hood River County Commission, Chair
Kate	McBride	Hood River	City of Hood River, Councilor
Fred	Duckwall	Hood River	Duckwall-Pooley Fruit Company, President
Dave	Winsor	Hood River	Cardinal Glass Industries, Hood River Plant Manager
Diane	McKeel	Multnomah	Multnomah County Commissioner
Shane	Bemis	Multnomah	City of Gresham, Mayor
Barbara	Ramirez Spencer	Multnomah	Consultant in Leadership and Organizational Development
Kenneth	Tracy	Multnomah	Boeing Company, Transportation Analyst

www.oregon**metro.gov**

Regional Transportation Safety Plan

Improving transportation safety for the Portland metropolitan area

May 11, 2012

Metro | *Making a great place*

About Metro

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

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

Stay in touch with news, stories and things to do.

www.oregonmetro.gov/connect

Project web site: www.oregonmetro.gov/regionalmobility

Acknowledgements

A special thanks to the Regional Safety Workgroup for their guidance in the development of this safety plan.

Regional Safety Workgroup

Anthony Butzek, Metro
Deena Platman, Metro
Josh Naramore, Metro
Beth Wemple, Cambridge Systematics
Ed Anderson, Washington County
Erin Ferguson, Kittelson and Associates, Inc.
Jane McFarland, Multnomah County
Mark Lear, City of Portland
Wendy Cawley, City of Portland
Sharon White, City of Portland
Tegan Enloe, CH2MHILL
Sandra Doubleday, City of Gresham
Nick Fortey, FHWA Oregon Division
Young Park, TriMet
Joshan Rohani, David Evans and Associates, Inc.
Kelly Brooks, ODOT Region 1
Sue D'Agnese, ODOT Region 1
Chris Monsere, Portland State University
Joe Marek, Clackamas County
Margaret Middleton, City of Beaverton
Mike McCarthy, City of Tigard
Marcy McInelly, Urbsworks

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

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

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

Metro respects civil rights

Metro hereby gives public notice that it is the policy of the Metro Council to assure full compliance with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, Executive Order 12898 on Environmental Justice and related statutes and regulations in all programs and activities. Title VI requires that no person in the United States of America shall, on the grounds of race, color, sex, or national origin, be excluded from the participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which Metro receives federal financial assistance. Any person who believes they have been aggrieved by an unlawful discriminatory practice under Title VI has a right to file a formal complaint with Metro. Any such complaint must be in writing and filed with Metro's Title VI Coordinator within one hundred eighty (180) days following the date of the alleged discriminatory occurrence. For more information, or to obtain a Title VI Discrimination Complaint Form, see the web site at www.oregonmetro.gov or call (503) 797-1536."

TABLE OF CONTENTS

DEFINITIONS

Terms that are used throughout this report are defined as follows:

"**Portland Metro region**" is the scope of this study, and is defined as area within the Urban Growth Boundary (UGB) as of December 31, 2011.

"**Injury A**" and "**Incapacitating injury**" are used interchangeably. Incapacitating injuries typically are injuries that the victim is not able to walk away from. They are synonymous with the term "**Severe injury**"

"**Injury B**" and "**Moderate injury**" are used interchangeably.

"**Injury C**" and "**Minor injury**" are used interchangeably.

"**Serious Crashes**" in this report refers to the total number of Fatal and Injury A crashes.

Per capita is used to describe crash rate per population. Except where otherwise noted, crash rates are per million residents.

Per VMT is used to describe crash rate per motorized vehicle miles. Except where otherwise noted, crash rates are per 100-million motorized vehicle miles travelled.

Arterial is a functional classification for surface streets. AASHTO defines arterials from the motor vehicle perspective as providing a high degree of mobility for the longer trip lengths and high volumes of traffic, ideally providing a high operating speed and level of service and avoiding penetrating identifiable neighborhoods.

Collector is a functional classification for surface streets. AASHTO defines collectors as providing both land access and traffic circulation within neighborhoods and commercial and industrial areas. The role of the collector system, from the motor vehicle perspective, is to distribute traffic to and from the arterial system.

Local is a functional classification for surface streets that includes all public surface streets not defined as arterial or collector. Local streets are typically low-speed streets with low traffic volumes in residential areas, but also include similar streets in commercial and industrial areas.

EXECUTIVE SUMMARY

Transportation safety is a critical public health issue in the United States. Nationwide, crashes killed an average of 37,500 people per year between 2007 and 2009. During that same time period in Oregon, there were roughly 42,500 traffic crashes and 1,111 people were killed on the state's roadway system, averaging 370 fatalities annually. Traffic crashes are the leading cause of accidental deaths in the United States, and the leading cause of deaths of all kinds for ages 15 – 34[1].

The Portland Metro region, with a population of about 1.4 million, comprises almost 40 percent of the state's population. Between 2007 and 2009, in the Portland Metro region there were more than 18,000 crashes including 159 fatalities and 1,444 crashes resulting in a serious injury. This represents 43% of the state's crashes, 14% of its fatalities, and 36% of its serious injury crashes. The annual economic cost to the region of these crashes is estimated at $958 million[2].

It is the Portland Metro region's adopted goal to reduce the number of pedestrians, bicyclists, and automobile occupants killed or seriously injured on the region's roadways each by 50% by 2035 compared to 2005. A 50% reduction in all crash types would therefore be a saving of $479 million annually in economic costs to the Metro region. This is an ambitious but important step toward realizing the larger vision of zero deaths.

The Regional Transportation Safety Plan (RTSP) is the first of its kind for this region. The goal of the RTSP is to help the region reduce fatalities and serious injury crashes. This work builds on the efforts of the Oregon Department of Transportation's (ODOT) recent adoption of the Transportation Safety Action Plan (TSAP). The RTSP is based on the coordinated efforts of many local agencies, organizations and individuals through the Regional Safety Workgroup. The Workgroup was formed in October 2009 to begin exploring ways to better integrate safety into the transportation planning process.

The RTSP serves as a data-driven framework and specifically urban-focused safety plan to build upon ODOT's statewide success and reduce fatalities and serious injuries in the Portland Metropolitan region. Metro, in coordination with the Regional Safety Workgroup analyzed crash data provided by ODOT and produced the first State of Safety in the Region report. This report provides the data foundation of the RTSP. Some of the key findings from the data are:

- Arterials have the highest serious crash rate for all modes.
- Alcohol and drugs are a primary contributing factors to fatal crashes.
- Speeding and aggressive driving are the leading contributing factors toward serious crashes.
- Serious pedestrian crashes are disproportionately represented after dark.

[1] Source: CDC, Deaths: Final Data for 2009

[2] *Oregon Department of Transportation, Comprehensive Economic Value per Crash table,* http://www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/docs/excel/BC_Form.xls (Appendix X.X)

- Serious nighttime pedestrian and bicycle crashes occur disproportionately where street lighting is not present.
- Streets with more traffic lanes have particularly high serious pedestrian crash rates per mile and per VMT.

The RTSP aims to address these findings and help to meet the RTP target for reducing fatalities and serious injuries for all crashes by 50 percent. The key recommendations for improving safety in the Portland Metropolitan region are:

- Continue data collection and analysis of ODOT crash data to support regional and local planning efforts.
- Develop scorecard/performance measures for identifying high crash mobility corridors and high crash arterials across the region.
- Convene targeted workgroup of expanded safety professionals to develop targeted strategies to reduce the prevalence of driving under the influence of alcohol and drugs, speeding and aggressive driving.
- Focus on improved pedestrian crossings including lighting, particularly on multi-lane arterials.
- Focus on providing protected bicycle facilities such as buffered bike lanes, cycle tracks, multi-use paths, or low-traffic alternative routes along high-volume and/or high-speed roadways.
- Further explore bicycle and pedestrian safety and identify projects as part of the Regional Active Transportation Plan currently underway.

Metro will be working with regional partners over the next year to work on these recommendations for reducing fatalities and serious injuries on the region's roadway system.

1.0 INTRODUCTION

With the federal surface transportation legislation TEA-21 in 1998, safety and security appeared as planning factors for metropolitan planning organizations (MPOs) to address in transportation planning. SAFETEA-LU, adopted in 2005, placed a greater emphasis on addressing safety. Over the last few years MPOs across the country have struggled to effectively incorporate safety into the transportation planning process. In fact for many MPOs safety was incorporated in name only with a goal statement often independent from a data driven detailed analysis of safety.

Since fall 2009, responding to a Federal Highway Administration recommendation, Metro has been working with local governments, ODOT, TriMet, practitioners and researchers to draft a Regional Transportation Safety Plan (RTSP). The RTSP serves as a data-driven framework and specifically urban-focused safety plan to build upon ODOT's statewide success and reduce fatalities and serious injuries in the Portland Metropolitan region.

The outline for the RTSP is:

- **Section 1** – An introduction to the report
- **Section 2 –** An assessment of federal, state and regional transportation goals and policies as they relate to safety, and highlights of local agency efforts to improve transportation safety.
- **Section 3** – Summary of regional trends in the crash data and compared to state, national and international trends, including an analysis of fatal and serious injury crashes in the region and their relationship to transportation and land use patterns.
- **Section 4** – Recommendations for implementing safety strategies to help meet the 2035 RTP target of reducing fatalities and serious injuries by 50% or more.

PURPOSE

The 2035 Regional Transportation Plan established a performance target for a 50% reduction in fatalities and serious injuries for pedestrians, bicyclists, and motor vehicle occupants by 2035 as compared to 2005. The purpose of the RTSP is to identify ways to help the region meet this goal and reduce fatalities and serious injury crashes. Unlike the TSAP adopted by ODOT that looks at statewide crash trends, this plan focuses on the Portland Metro region and is specifically urban-focused. It provides a data-driven framework to identify trends in the region's crashes and recommends short-term and long-term strategies to begin to reduce fatalities and serious injuries for all modes on the region's roadways.

THE 5 E'S OF SAFETY

When considering the safety of the transportation system, it is important to think about the built environment, the vehicles, and the user including pedestrians, bicyclists and drivers. Research indicates that the vehicle, the roadway and the user are a factor in roughly 12, 34 and 93 percent of traffic crashes respectively. Therefore it is imperative that safety solutions be multidisciplinary and multimodal in nature. A common application of a multidisciplinary approach exists in the 5 E's of transportation safety:

- *Education* – Through education, all transportation system users, including pedestrians, bicyclists, and drivers of all ages develop awareness of how their behavior contributes to safety.
- *Emergency Medical Service (EMS)* – EMS consists of a highly organized system ensuring prompt notification of the location and severity of a crash, timely dispatch of trained emergency care providers, use of evidence-based treatment protocols and triage to an appropriate health care facility.
- *Enforcement* – High visibility enforcement as a deterrent to the violation of traffic laws.
- *Engineering* – Building a safe and efficient multimodal transportation system to meet the needs of all users.
- *Evaluation* – Review processes to track progress

The 5 E's encompass a broad group of solutions administered by a wide variety of stakeholders responsible for making the transportation system safe for all users. To reduce fatalities and serious injuries, the Portland Metropolitan region will need to build on the efforts of these stakeholders. The RTSP recommendations in Section 4 will identify strategies to incorporate all of the 5 E's.

2.0 FEDERAL, STATE & REGIONAL POLICY FRAMEWORK

The following provides an overview of the policies that currently exist at the federal, state and regional level related to transportation safety. It also provides highlights of programs and projects that local agencies in the Portland Metropolitan region are doing to address serious crashes.

FEDERAL POLICIES

The federal transportation planning process requires MPOs to address eight planning factors. The degree to which each factor is addressed will vary depending on the unique conditions of the area, but efforts should be made to think through and carefully consider how to address each factor. The safety factor has created challenges for some MPOs as to how safety should be addressed. SAFETEA-LU established the Highway Safety Improvement Program (HSIP) as a core Federal-aid program for the first time indicating the importance attached to transportation safety at the federal level. The overall purpose of this program is to achieve a significant reduction in traffic fatalities

and serious injuries on all public roads through the implementation of infrastructure-related highway safety improvements.

A key requirement of the HSIP is that all states must develop a Strategic Highway Safety Plan (SHSP), in consultation with other key state and local highway safety stakeholders. Consequently, the MPO must be familiar with the SHSP in order to identify MPO goals and strategies that would address safety, and integrate SHSP goals and strategies into the activities and planning efforts of the MPO; likewise, the SHSP should consider the safety needs and strategies identified in the MPO safety plan.

Recently a shift has started at the federal level to developing a national strategy for reducing fatalities on the nation's roads. The strategy emphasizes that even one death on national roadway system is too great. A recent publication, *Toward Zero Deaths: A National Strategy on Highway Safety* is part of USDOT's development of a national strategy with National Cooperative Highway Research Program Project 17-51 expected to be completed at the end of 2012.

STATE POLICIES AND PROGRAMS

The Oregon Transportation Plan (OTP) is the long-range blueprint for the state's transportation system. The OTP's Goal 5 – Safety and Security, sets statewide policy for improving the safety for all modes and transportation facilities. The OTP serves as the framework for the development and updates to the TSAP. Based on both the OTP and TSAP, the Oregon Highway Plan contains Policy 2F: Traffic Safety, with the following actions:

- *2F1* - Establish a process to develop and implement the most cost-effective solutions to high priority safety problems.
- *2F2* - Whenever safety improvement is the stated objective of the project, include goals and a process to evaluate the outcome and further refine the project selection and solution process.
- *2F3* - In identifying solutions to traffic safety problems, consider solutions including, but not limited to:
    - Increasing traffic enforcement
    - Involving business and community groups and the media in education efforts
    - Using educational materials and special signing to change driving practices
    - Making engineering improvements such as geometrics, signing, lighting, striping, signals, improving sight distance, and assessing conditions to establish appropriate speed
    - Constructing appropriate bicycle and pedestrian facilities including safe and convenient crossings
    - Managing access to the highway
    - Developing incident response and motorist assistance programs
    - Ensuring the uniformity of traffic control devices
    - Developing driver information systems

- *2F4* - Continue to develop and implement the Safety Management System to target resources to sites and routes with the most significant safety problems. Encourage local governments to adopt a safety management system.
- *2F5* - Seek additional funding for state and local traffic law enforcement.
- *2F6* - Work with citizens and local jurisdictions to address safety concerns on the state highway system(1999 Oregon Highway Plan, pages 112-115.)

To help identify the priority facilities for safety improvements, ODOT developed the Safety Priority Index System (SPIS) which is used as part of the HSIP analysis. The SPIS score is based on three years of crash data and considers crash frequency, crash rate, and crash severity. A roadway segment becomes a SPIS site if a location has three or more crashes **or** one or more fatal crashes over the three year period. SPIS sites are 0.10 mile sections on the state highway system.

Each year, a list of the top 10% SPIS sites on state highway facilities is generated and the top 5% sites are investigated by the five Region Traffic Manager's offices. These sites are evaluated and investigated for safety problems. If a correctable problem is identified, a benefit/cost analysis is performed and appropriate projects are initiated, often with funding from the Highway Safety Improvement Program (HSIP). Regions report the results of their site evaluations to the State Traffic Engineer. These results are incorporated into the HSIP 5% report to FHWA by August 31 of each year.

SAFETEA-LU not only increased funding for safety, but it raised its stature by requiring each state department of transportation (DOT) to develop a data-driven Strategic Highway Safety Plan (SHSP) in coordination with its partners. State DOTs are required to consult with MPOs as part of the SHSP development. Periodically, the Oregon Department of Transportation (ODOT) updates the state SHSP that is called the Transportation Safety Action Plan (TSAP). The TSAP sets statewide goals, objectives and targets for reducing fatalities and serious injuries on the state transportation system. It focuses on education and enforcement and provides a set of general strategies to address safety issues across the state.

The Oregon Transportation Safety Action Plan (OTSAP) was recently adopted by the Oregon Transportation Commission in October 2011. The OTSAP guides ODOT's safety investment decisions through a set of Emphasis Area actions to help respond to the contributing factors that contribute to the greatest number of transportation-related fatalities and injuries. The following are the ten priority OTSAP actions:

1. *Safety areas of interest should include intersection crashes, roadway departure, and pedestrian/bicycle.* – State and local governments must work to improve key Infrastructure Safety Emphasis Areas. These areas should include, but not be limited to the following:

    - Intersection crashes – Investigate the usefulness of advance signing, access management techniques, advance technology and features, and improvements to signal timing to smooth traffic flow.
    - Roadway Departure Crashes (including run off the road and head-on crashes) – Investigate the usefulness of rumble strips, shoulder widening, median widening, cable

barrier, raised medians, durable marking, fixed object removal, roadside improvements, safety edge, and other countermeasures and safety treatments of centerline.

- Ped/Bike Crashes – Investigate the usefulness of curb bulb-outs, refuge islands, warning signage improvements and other countermeasures for pedestrian crashes, investigate improvements in traffic controls for bicycles and improvements at intersections to better accommodate pedestrians and bicycles such as bicycle signals and rectangular rapid flash beacons.
- Further develop and institutionalize the ODOT Safety Corridor and Roadway Safety Audit programs within ODOT. ODOT should embrace the blending of the "4 E approach to transportation safety" as described in FHWA's Office of Safety Mission Statement (Engineering, Education, Enforcement, and Emergency Services).

2. *Create a plan to ensure that safety is considered in construction/repair decisions.* – Develop a plan or series of plans and policy changes designed to improve the likelihood that when construction or repair decisions are made, safety is the highest weighted consideration.

- Develop tools to assist in weighing the best safety choices that balance risk and benefit
- Identify and implement incremental improvements and changes that tilt systems and policies toward safety.
- Establish tangible safety goals or targets at ODOT Region and District levels. Evaluate possibility of localized safety planning in conjunction with local governments.
- Develop one or more funding mechanisms that allow for quick intervention on emerging safety issues.
- Identify a safety champion for ODOT to assure that safety has a voice in the decision-making processes.

3. Develop a communications strategy for raising awareness and acceptance of the need for law enforcement.

4. *Establish processes to train enforcement personnel, attorneys, judges, and DMV staff.* – Continue efforts to establish processes to train enforcement personnel, deputy district attorneys, judges, DMV personnel, treatment providers, corrections personnel and others. An annual training program could include information about changes in laws and procedures, help increase the stature of traffic enforcement, and gain support for implementing changes.

5. *Pass legislation to establish .04 percent BAC.* – Pass legislation to establish .04 percent BAC as the standard for measuring alcohol impairment for all Oregon drivers 21 years old and older. Continue the zero tolerance law for persons under 21. Initially request legislation requiring that repeat offenders be required to adhere to the .04 standards. Once this step has been proven successful, request the standard be expanded to all drivers.

6. *Improve and expand the delivery system for driver education in Oregon.* – Consider the following in designing a model program:

- Identify and promote strategies that establish a driver and traffic safety education system. This system should promote life-long driver learning and foster a commitment to improve driver performance throughout the driver's life span.
- Continue to support legislation to make driver education mandatory for new drivers under the age of 18.
- Evaluate the possibility of funding the increased cost of providing this additional training by raising learning permit fees.
- If feasible, by the year 2015 extend this requirement to all persons seeking their first driver license.
- Improve standards to support quality driver and traffic safety education programs.
- Establish a definition of what a new model driver is in terms of knowledge, skill, behavior and habits needed. These standards should include specific requirements for ongoing professional development.
- Evaluate the possibility of establishing a licensing process that measures driver readiness as defined by the new model driver, and employs a process that facilitates the safety means to merge the learning driver into mainstream driving.
- Establish program content standards that apply to every driver education program.
- Continue to develop oversight and management standards that hold the driver education system accountable. These standards should encourage quality and compel adherence to program standards.
- Create a partnership to support driver education. Identify and promote best practices for teaching, and learning among and between parents, educators, students and other citizens.

7. *Continue public education efforts aimed at proper use of child safety seats.*
8. *Consider legislation requiring the inclusion of helmets, reflective gear and lighting with new bicycles.*
9. *Work with partner agencies to position Oregon's EMS system as world class and affordable for the average Oregonian.* – Work with partner EMS agencies, providers, committees, volunteers, and concerned citizens to position Oregon's EMS system as world class. Raise awareness of the life-saving importance of EMS personnel and equipment to encourage statewide support and involvement. Increase emphasis on the need for well-trained personnel and equipment in rural and volunteer agencies. Create and fund affordable, local and accessible EMS training statewide for pre-hospital and hospital personnel responding to motor vehicle crashes, aid in reaching and sustaining this goal. Continue work towards meeting and exceeding national standards.
10. *Develop strategies to assure the recruitment and retention of EMS volunteers.* – Work to place a state focus on volunteer creation and development. Develop strategies to assure the recruitment and retention of EMS and fire volunteers. Work to assure that the EMS education standards are attainable to volunteers in terms of time, costs, and resource demands. Develop easy, effective entry points for EMS and fire volunteers. Work with

affected agencies and local jurisdictions to identify existing and emerging barriers to volunteer participation in the EMS and fire systems.

REGIONAL POLICY CONTEXT

In 2008 the Metro Council, with guidance from the Metro Policy Advisory Committee (MPAC), agreed that our planning efforts should start with defining the desired outcomes that the residents of this region have consistently expressed when asked. To that end, the Metro Council and our regional partners adopted six desired outcomes to guide regional planning for the future. The 2035 RTP establishes an outcomes-based planning and decision-making framework to ensure transportation decisions support the six desired outcomes.

Safety is an essential element of the region's desired outcomes, to ensure people have safe and reliable transportation choices. The 2035 Regional Transportation Plan (RTP) lays out the region's transportation concepts and policies that will result in a complete and interconnected transportation system that supports all modes of travel and implementation of the 2040 Growth Concept. Goal 5 of the RTP is to Enhance Safety and Security and to ensure that multi-modal transportation infrastructure and services are safe and secure for the public and goods movement.

In 2008, as part of the quadrennial federal certification review, Metro received a recommendation from the Federal Highway Administration (FHWA) to better incorporate safety into the MPO planning process. FHWA then sponsored a 1.5-day workshop titled, "Incorporating Safety into the Transportation Planning Process," in September 2009 that involved the 6 Oregon MPOs, Southwest Regional Transportation Council (the Vancouver, Washington region's MPO), the Oregon Department of Transportation (ODOT), TriMet and local jurisdictions. In response to the FHWA recommendations, Metro organized an ad-hoc Regional Safety Workgroup in October 2009 to begin exploring ways to better integrate safety into the transportation planning process. The Workgroup is comprised of the Metro region's cities and counties, Metro, TriMet, ODOT, researchers from Portland State University and practitioners specializing in transportation safety.

From the onset Workgroup participants highlighted the importance for creating a data driven approach to incorporate safety data into regional land use and transportation decisions. The Workgroup developed a list of core activities to help Metro focus its safety efforts:

- Improve safety data aggregation and analysis
- Include safety in the development of performance measures
- Use quantitative safety measures in project selection for the RTP and MTIP (Metropolitan Transportation Improvement Program)
- Incorporate safety into Metro's programs, policies, and design best practices
- Encourage the development of a safety culture in member jurisdictions by including safety more directly in the transportation planning, design, construction, and maintenance practices.

- Sharing techniques, needs, accomplishments, and best practices in safety among member jurisdictions

This preliminary framework helped guide the Workgroup's discussion topics and related work products. Highlights of these activities are in **Table 1** below:

Table 1 - Regional Safety Workgroup Activities

Discussion Topic	Activities
Data Collection, Visualization and Analysis	• Metro received state crash data for 2007, 2008 and 2009 from ODOT Salem's Crash Analysis and Reporting Unit for the tri-county region. Metro reviewed the data and has formatted it for use by all local governments. • Metro has also conducted an analysis of the safety data that is the basis for the Regional Safety Plan.
Workgroup Mission Statement	• Developed the following mission statement to help focus the workgroup's efforts: *To support the 2035 RTP target of reducing fatalities and serious injuries by 50%, the mission of the Safety Workgroup is to promote collaboration and commitment among regional partners to plan, build and operate a transportation and land use system that prevents fatal and serious injury crashes in the Portland Metro region. The Safety Workgroup will engage regional partners to consider, evaluate and implement regional multi-disciplinary safety solutions. These include, but are not limited to land use, design, engineering, education, enforcement, and emergency services. The Safety Workgroup will operate from a data-driven foundation and support the improvement and use of safety data and inform transportation and land use decisions at the regional level.*
Performance Measures	• Developed safety performance target for the 2035 RTP (shown on the following page).
State and Regional Safety Funding	• Used Workgroup to review and evaluate candidate projects for the Metro Regional Flexible Fund Allocation process for addressing safety. • Reviewed ODOT Region 1 safety projects as part of the State Transportation Improvement Program (STIP). • Discussed regional, state and local funding of safety projects.
Future Research Topics	• Developed a list of research topics to take advantage of future grant opportunities.

Design Best Practices	• Discussed new ITE recommended practice in publication *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach*
Highway Safety Manual (HSM)/Multimodal Level of Service	• Discussed recently published HSM and safety analysis tools
Road Safety Audits (RSAs)	• ODOT Region 1 hosted a training for local governments, agencies and consultants to learn the process for conducting RSAs

2035 RTP Performance Target

In December 2009, ODOT Region 1 wrote a letter to JPACT requesting that Metro refine the safety performance target for the 2035 Regional Transportation Plan (RTP) and to start work on a Traffic Safety Plan to be completed by December 2011. The Regional Safety Workgroup's first task was to develop the performance target below that was adopted as part of Metro's 2035 RTP in June 2010.

Safety – By 2035, reduce the number of pedestrian, bicyclist, and motor vehicle occupant fatalities plus serious injuries each by 50% compared to 2005.

In addition to the 2035 RTP performance target, safety performance measures will be included in the next update to the Regional Mobility Corridor Atlas, the Congestion Management Process and RTP update.

PORTLAND METRO REGION LOCAL AGENCY SAFETY PROJECTS & PROGRAMS

Local agencies across the region are doing a wide variety of actions to improve the safety of the region's transportation system. The following are a summary of activities provided by Workgroup members.

TriMet – Safety is the focus for all of TriMet's operational, planning and strategic decisions. Rather than thinking of it as a single priority—we are renewing our efforts to create a culture where safety is a core value. A safety management system is being implemented to facilitate proactive identification and control of safety risks to provide for safer transit operations for the community it serves. Among the strategies implemented is safety education. TriMet has a Safety Education Advisory Committee composed of community representatives who have a shared interest and stake in promoting safe interactions between bicyclists, pedestrians, drivers and transit users. Members of this group work together on common education efforts and advise TriMet. In addition, our

outreach staff works directly with schools to educate faculty, parents and students on how to behave safely around buses, MAX light rail and WES commuter rail.

Clackamas County – Clackamas County completed a Transportation Safety Action Plan (TSAP) in spring 2012 which will be incorporated into its Transportation System Plan update. This will be the first county TSAP in Oregon and has served as a template for the RTSP. The County annually develops a Safety Priority Index System list and has their Traffic Safety Commission review it. The County also has an active Traffic Safety Commission and also has a Safe Communities Program with a goal to reduce injuries and fatalities using a 5E approach.

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

City of Portland – The City of Portland dedicates staff and resources to working on engineering and education solutions that impact transportation safety on specific high crash corridors and Portland Police continue to address enforcement along these stretches of roadway. Each year the City identifies high crash locations and reviews them for safety deficiencies. The City hosts an annual Transportation Safety Summit, featuring presentations from transportation industry leaders. City staff conducts Pedestrian/Driver Safety Trainings, including translations as needed and has a partnership with Portland Police Bureau for Crosswalk Enforcement Actions, resulting in citations to drivers, bicyclists and pedestrians that do not follow Oregon law when pedestrians are crossing at marked or unmarked crosswalks. (A more detailed listing can be found in Appendix A.)

City of Gresham – The City of Gresham puts a high importance on safety with a number of safety policies, programs and projects. The City's Transportation Advisory Committee provides recommendations for safety policies, programs and projects. City staff track safety data through analysis of annual top 10 crash locations in the city. The analysis is to better understand fatalities and injury accidents, identify crash trends, monitor issues and identify countermeasures for prevention. A City Safety Education Program enhances safety for bicyclists, walkers, transit users and motorists and teaches all to share the road. Other programs and amenities that support bicyclists, walkers and transit users include: bike rack installations, bike helmet distributions creation and distribution of a City Bicycle Guide, and a partnership with Gresham Police for Crosswalk Enforcement Actions, resulting in warnings or citation to drivers, bicyclists and pedestrian that do not follow Oregon crosswalk laws. (A more detailed listing can be found in Appendix A.)

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

City of Beaverton – The City of Beaverton's Comprehensive Plan Transportation Element includes Goal 6.2.3, "A safe transportation system" and policies and actions to improve traffic safety through engineering, education and enforcement. The City monitors intersection collision history through Washington County and ODOT's safety priority index system. Intersections with high collision rates are given special attention for safety improvements. Also, as ODOT crash reports are provided by the Beaverton Police Department to the Transportation Division, they are reviewed. Reporting of safety issues is available by phone, on-line, and at public meetings. The Beaverton Police Department also monitors crash information for subsequent analysis and potential actions.

3.0 SUMMARY OF PORTLAND METRO REGION TRENDS

Roadway safety remains one of the most challenging health issues nationwide. In the US, crashes killed an average of 37,500 people per year between 2007 and 2009. During that same time period in Oregon, there were roughly 42,500 traffic crashes and 1,111 people were killed on the state's transportation system, averaging 370 fatalities annually.

The Portland Metro region, with a population of about 1.4 million, comprises almost 40 percent of the state's population. Between 2007 and 2009, in the Portland Metro region there were more than 18,000 crashes including 159 fatalities and 1,444 crashes resulting in an incapacitating injury. This represents 43% of the state's crashes, 14% of its fatalities, and 36% of its incapacitating injury crashes. To begin better understanding the details behind the crash data in the Portland Metropolitan region, Metro received crash information from the ODOT Crash Analysis and Reporting Unit database beginning in 2007. This dataset includes the geocoded location and detailed data for each crash in the region, and is complemented by Metro's rich datasets of transportation infrastructure, transportation operations, and spatial land use data. The combination of these data sources provides the opportunity for detailed analysis of the safety of the region's transportation system and land use patterns.

It must be noted that Oregon is different from other states in that it collects non-injury crash reports predominantly from citizens involved in the crashes. This impacts the quality of crash reports compared to states that have only law enforcement reporting. However, the available crash data is valuable in identifying urban transportation safety trends for the Portland Metropolitan region.

Metro staff spent 2010 and 2011 working with staff from cities and counties of the Metro region, ODOT, TriMet, and other local safety experts to compile and analyze these data from 2007-09[3]. Further, a huge amount of US and international data is available to document national and international patterns and trends. This information is important to provide context for local data. All of this analysis was compiled into the first State of Safety in the Region report (available at http://www.oregonmetro.gov/regionalmobility), documenting roadway crash data, patterns, and trends in the Portland Metro area and beyond to inform the pursuit of the region's goal of reducing pedestrian, bicyclist, and vehicle occupant fatalities and serious injuries by 50 percent.

The State of Safety report presents the findings, identifying trends and relationships of serious crashes with environmental factors including roadway and land use characteristics and serves as the foundation for the RTSP. Crashes are broken down by a number of factors contained in the dataset provided by ODOT. This data was combined with Metro's mapping database that includes roadway data, such as geometry, traffic volumes, traffic congestion, transit routes, bicycle routes, sidewalk inventory, and spatial land use data. The combined data set allowed for an analysis of the Portland Metropolitan region's crashes from 2007 – 2009 relative to the following attributes:

- Roadway classification
- Mode
- Month
- Time of day and lighting
- Weather
- Road surface conditions
- Crash type
- Contributing factors
- Driver's age and gender
- Seat belt usage
- Number of traffic lanes
- Roadway congestion
- Geography within the UGB (sub-regions, cities, counties, and ODOT Districts)
- People density (population plus employment)
- Urban Land Institute density of services
- Street block density

The State of Safety in the Region report is broken into sections that cover different aspects of the region's crash patterns. It includes:

> *Section 1 – State, National, and International Trends* –Data from the National Highway Traffic Safety Administration (NHTSA) were compiled and analyzed along with population

[3] There is more than a year of lag time between a calendar year and the availability of the ODOT crash data. Data for 2010 was made available in April 2012, but was not available in time to be added to the State of Safety in the Region report.

data from the US Census to identify trends in national, state, and city crashes. NHTSA summarizes traffic fatality data by state and by major city, including number of fatalities, fatalities per capita and per vehicle-miles travelled (VMT), and by travel mode. Five years of data between 2005 and 2009 were considered for this analysis. International data from the European Union was also compiled for comparison.

Section 2 – All Crashes – This section summarizes all crashes occurring in the Portland Metro region. The term "serious crashes" refers to all fatal or incapacitating injury (injury A) crashes.

Section 3 – Roadway Characteristics of Non-Freeway Crashes – This section summarizes characteristics of crashes occurring on surface streets in the region.

Section 4 – Roadway Characteristics of Freeway Crashes – This section summarizes characteristics of crashes occurring on freeways in the region.

Section 5 – Pedestrians (Non-Freeway Crashes) – This section summarizes characteristics of crashes involving pedestrians on surface streets in the region.

Section 6 – Bicyclists (Non-Freeway Crashes) – This section summarizes characteristics of crashes involving bicyclists on surface streets in the region.

Section 7 – Crash Type Detail – In this section, the four crash types identified as most prevalent are reviewed relative to all crashes in more detail to identify patterns. The information includes crash severity and contributing factors.

Section 8 – Land Use Analysis – As part of the State of Safety report, Metro performed a spatial analysis of the crash, traffic, and land use patterns in the region. The purpose of the spatial analysis is to identify trends and patterns in serious crashes as they relate to land use patterns.

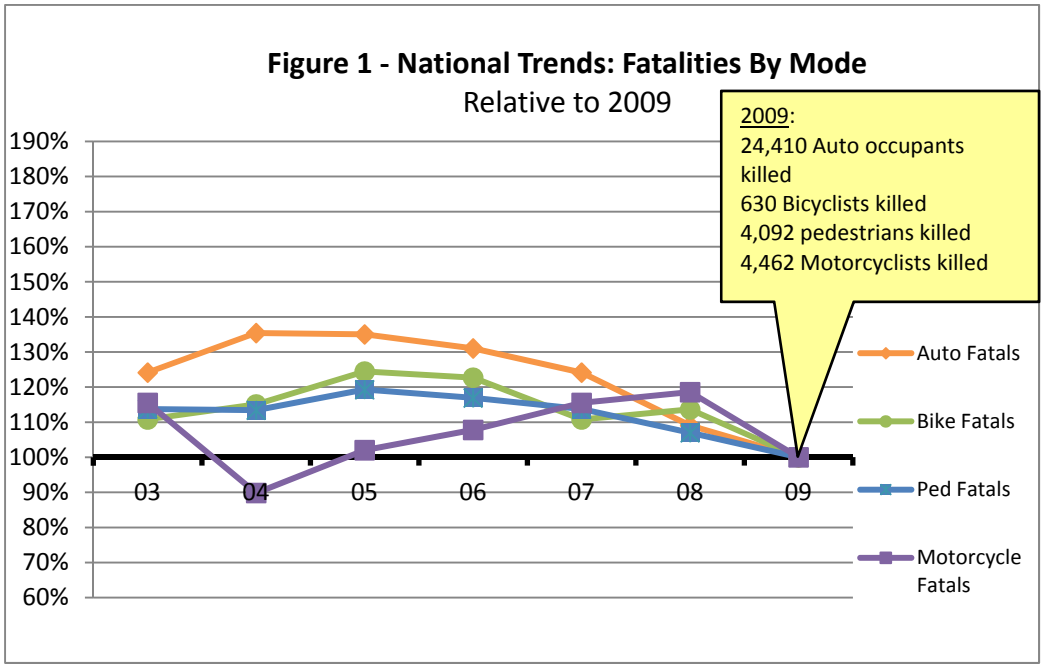
Section 9 – Transit and Rail – This section provides an overview of the crash data available for bus and rail transit and heavy rail in the Portland Metro region.

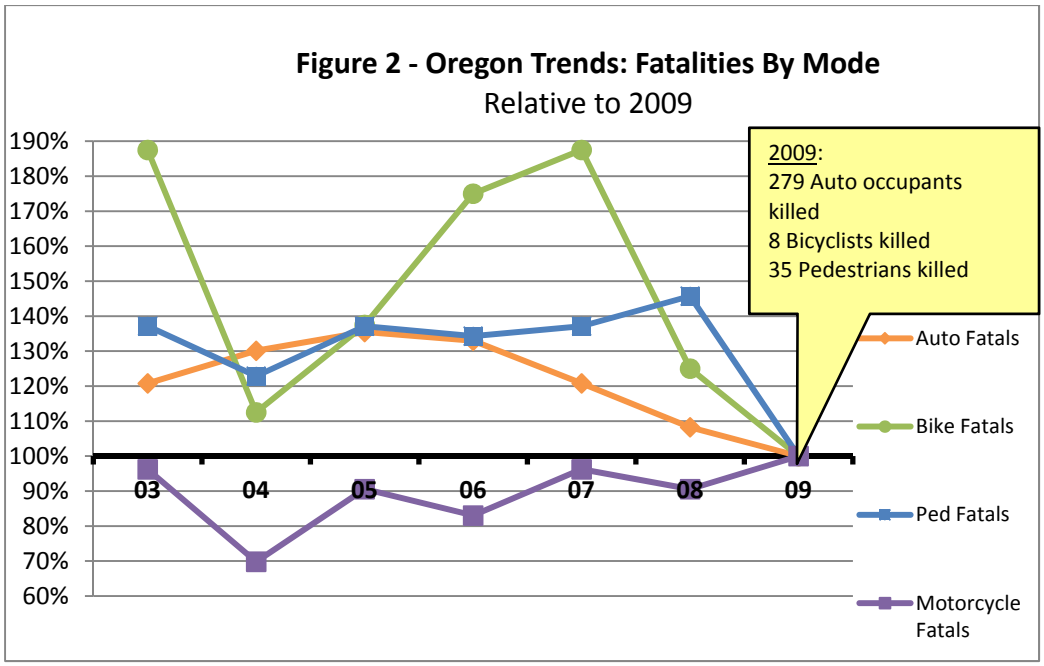
The nine sections of State of Safety report examine the region's crash data through a variety of lenses. The Regional Safety Workgroup has identified the most significant findings from the State of Safety report and grouped them into three categories: all crashes, surface streets and bicycle and pedestrian. Not all sections of the report yielded significant findings, as the land use analysis was inconclusive. Additionally, though the transit and rail data sources were limited when compared to the ODOT crash data, transit by passenger mile experiences less fatalities and serious injuries compared to motor vehicle travel. The following represent high-level findings, focusing on trends that are clearly apparent from the crash data and presented in detail in the State of Safety in the Region report.

ALL CRASHES

1) *Nationally and in Oregon, fatalities are decreasing year-to-year for all modes except motorcycle, which is increasing.*

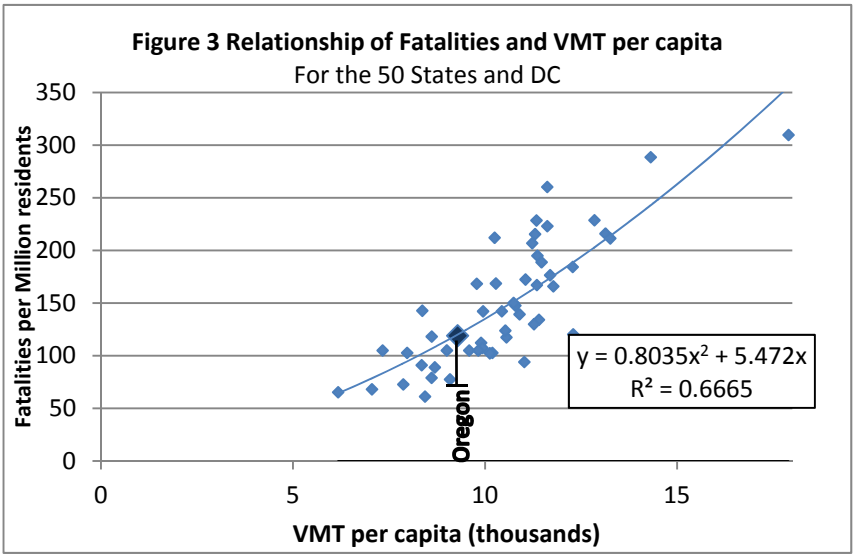
Travel patterns in the US have changed in recent years due to a variety of external factors. While the population has continued to increase, VMT per capita and absolute VMT have declined. Roadway fatality rates have begun to decline after decades of increases or stagnation. In Oregon, these trends are consistent with national patterns. The NHTSA data are broken out by mode: automobile occupants, motorcyclists, bicyclists, and pedestrians. **Figures 1** and **2** show recent national and state trends in fatalities for each mode. Fatalities are decreasing over time for all modes except motorcycle, which are generally increasing.





2) Increases in vehicle miles travelled (VMT) generally correlate with increases in fatal and serious crashes.

One of the clearest trends in crash data is the correlation between fatality rates and annual per capita VMT. States with higher VMT typically also have higher per capita fatality rates, as the typical exposure to risk is increased. **Figure 3** shows the relationship by US state for all fatalities.

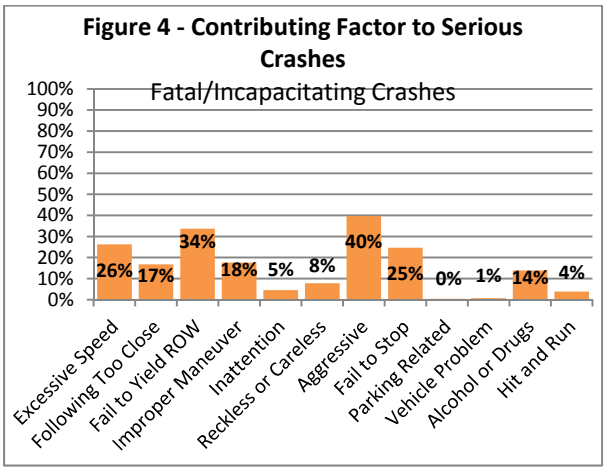


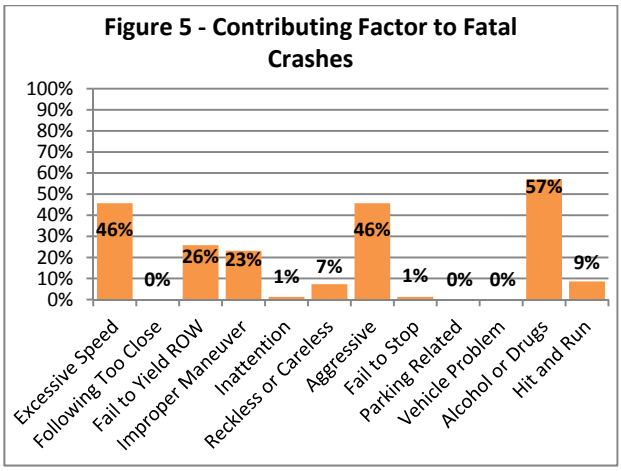
It is apparent from the data that states with more auto travel typically exhibit higher fatality rates. The District of Columbia has the lowest per capita VMT at 6,170, and exhibits one of the lowest annual fatality rates of 65 per million residents – 50% of the national average. Massachusetts, New York, and Rhode Island have the next lowest VMT per capita, and exhibit some of the lowest fatality rates in the US. Wyoming, with the highest per capita VMT of 17,900, also has the highest annual fatality rate at 310 per million residents – 235% of the national average. The national average is 9,920 VMT per capita and 132 fatalities per million residents. Oregon statistics

are 9,280 VMT per capita (94% of the national average) and 119 fatalities per million residents (90% of the national average).

3) Alcohol and drugs, excessive speed, and aggressive driving are the most common contributing factors in serious crashes. Crashes involving alcohol and drugs have a much higher likelihood of being fatal than other crashes.

Figures 4 and **5** illustrate the percentage of serious injury and fatal crashes by contributing factor. Each crash may have several contributing factors. Alcohol or drugs are a factor in 57% of fatal crashes. Aggressive driving (a combination of excessive speed and following too close) is a factor in 40% of serious crashes.

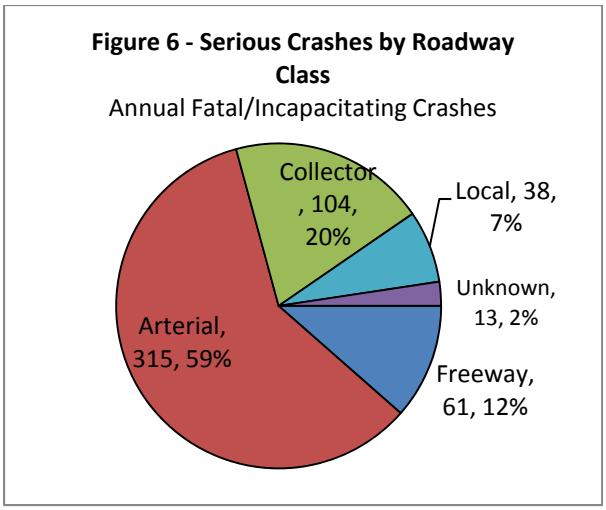




SURFACE STREETS

4) Arterials roadways have the highest serious crash rate per road mile and per VMT. 59% of the region's serious crashes, 67% of the serious pedestrian crashes, and 52% of the serious bike crashes occur on arterial roadways.

Arterial roadways are the location of the majority of the serious crashes in the region. **Figure 6** sorts all the region's serious crashes by roadway classification. **Figure 7** shows serious crashes per VMT and by roadway classification. Freeways and their ramps are relatively safe, per mile travelled, compared to arterial and collector roadways.



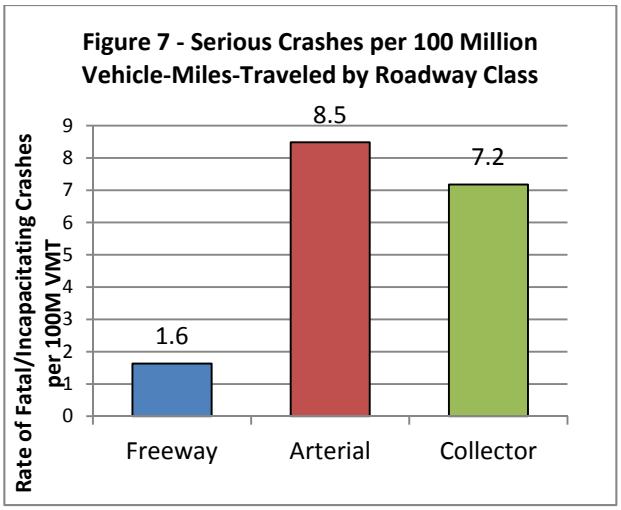
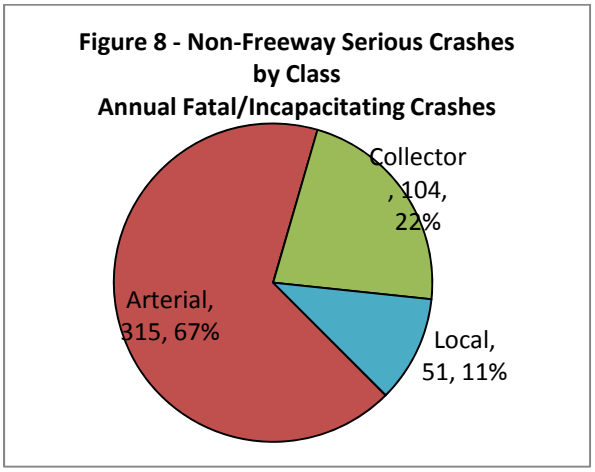
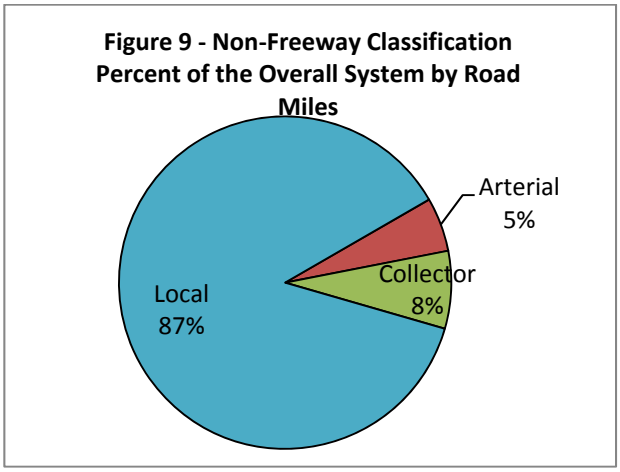


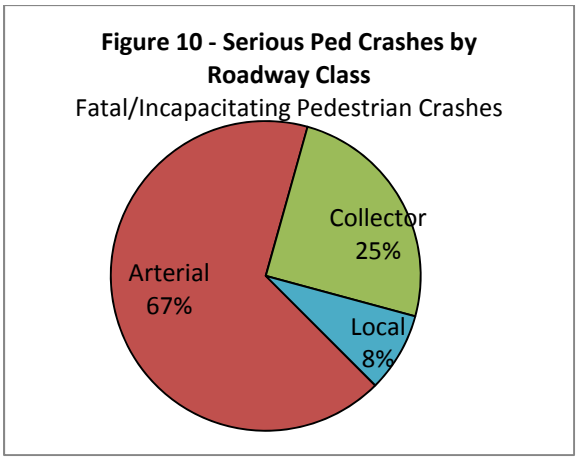
Figure 8 breaks down the non-freeway serious crashes by roadway classification and **Figure 9** shows the percent by roadway classification of the overall system. Arterial roadways account for 67% of non-freeway crashes, despite making up only 5% of the region's non-freeway road miles.





The majority of pedestrian and bicycle crashes occur on the non-freeway system. Arterials experience a higher number of serious pedestrian and bicycle crashes overall and a higher rate per mile of road than other roadway classifications.

Figure 10 shows that arterials account for 67% percent of non-freeway serious pedestrian crashes. **Figure 11** shows the serious pedestrian crash rate per mile of road. Although arterials account for only 5% of the overall non-freeway system, their serious pedestrian crash rate per road mile is roughly four times that of collectors and about 125 times that of local streets.



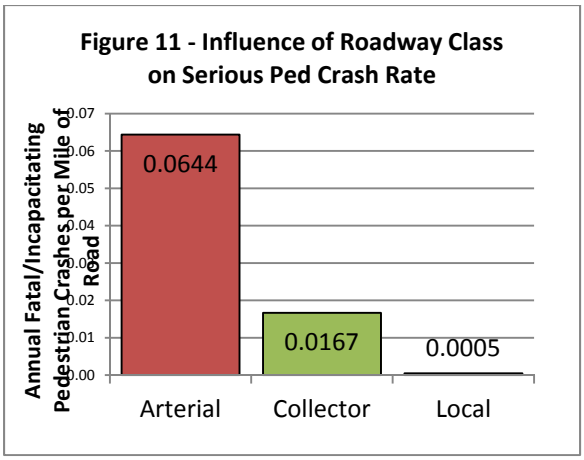
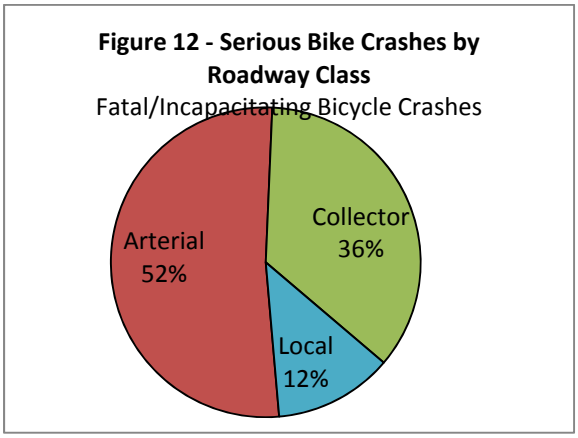
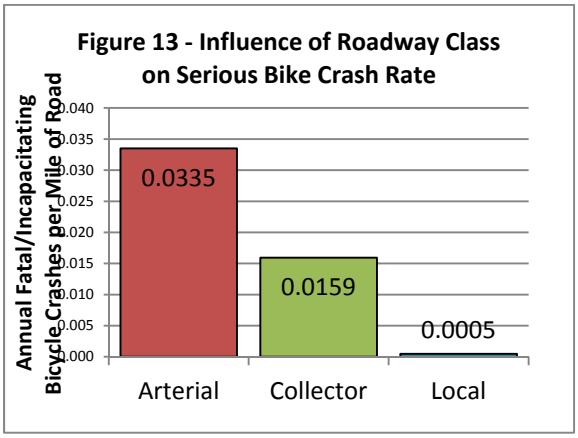


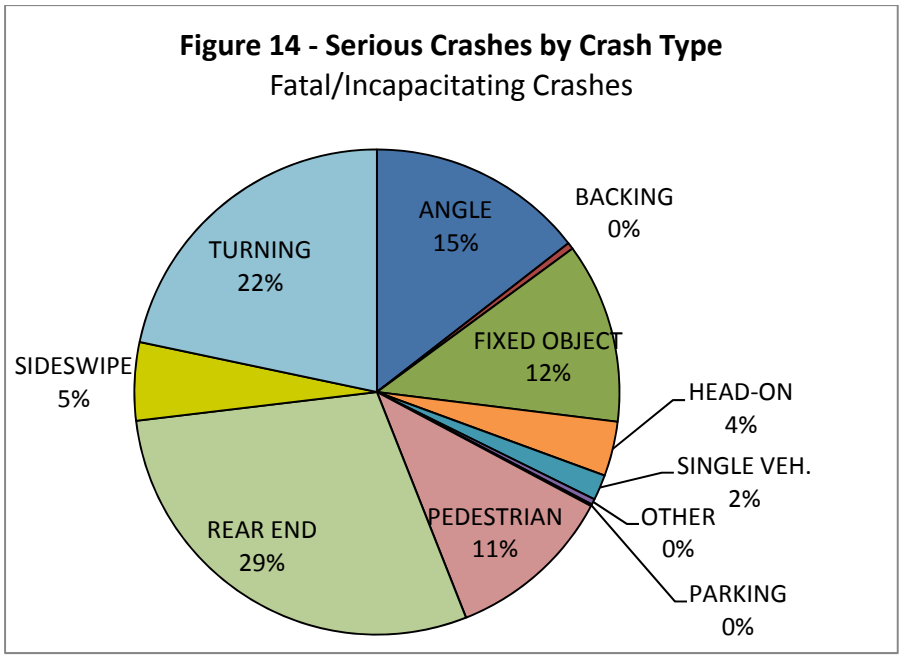
Figure 12 shows that arterials account for 52% of serious bicycle crashes. **Figure 13** shows the serious bicycle crash rate per mile of road. Although arterials account for only 5% of the overall non-freeway system, their serious bicycle crash rate per road mile is more than twice that of collectors and 67 times that of local streets.

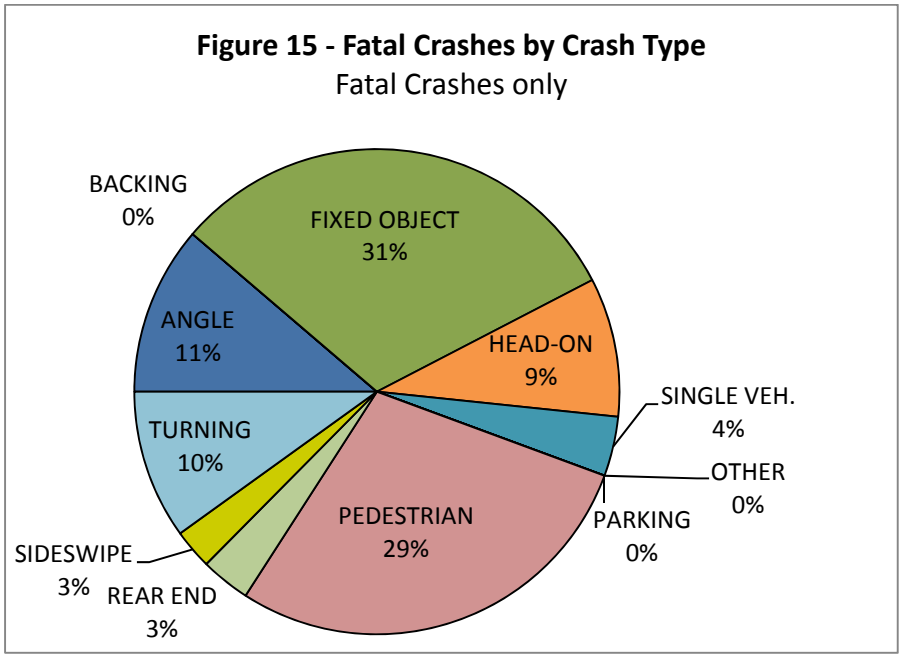




5) The most common serious crash types on surface streets were rear end and turning. For fatal crashes, the most common types were pedestrian and fixed object.

Figures 14 and **15** present serious and fatal crashes by crash type. Fatal crashes are specifically broken out here because the distribution is substantially different. For the purpose of establishing crash type, bicycles are considered vehicles, and so there is no separate bicycle crash type. 29 and 22 percent of all serious crashes are rear end and turning crashes respectively. However, when looking at just fatalities, the predominant crash types change. 31 and 29 percent of all fatalities are fixed object and pedestrian crashes respectively.



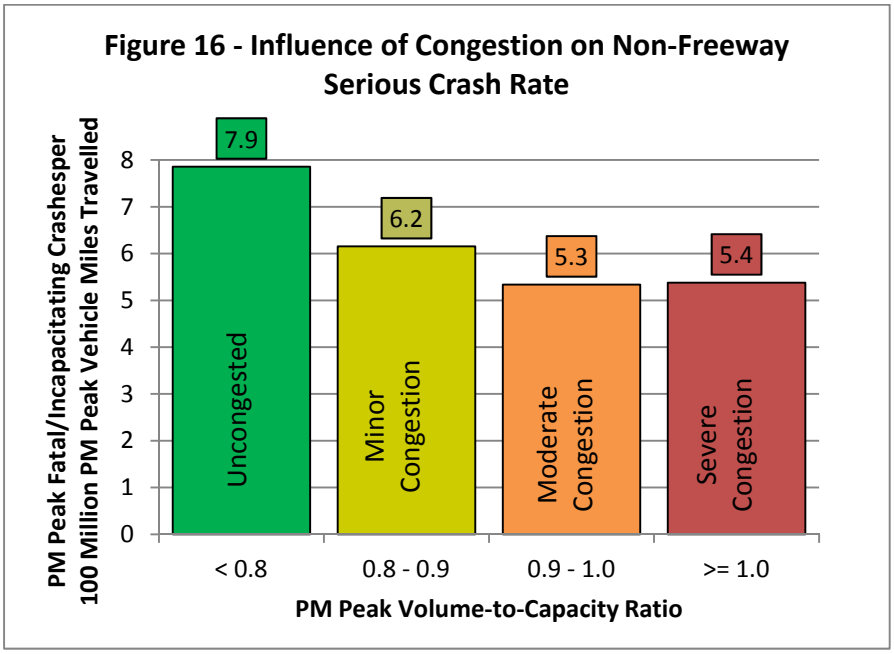


6) Higher levels of congestion on surface streets are correlated with lower serious crash rates, likely due to lower speeds.

The combination of traffic data available from the region's travel demand model and crash data allowed for a comparison of traffic congestion with safety. For non-freeways, the analysis included all roadways in the regional travel demand model, including all arterials and collectors, as well as

certain local streets serving a collector function. The intent was to establish the relationship between congestion and safety.

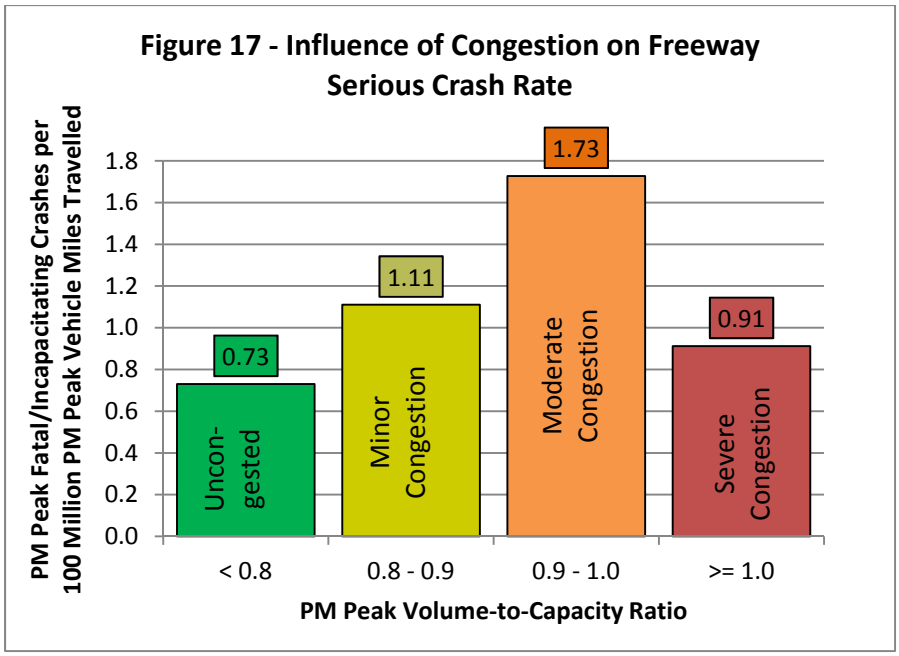
PM peak 3-hour Volume-to-Capacity ratios as determined by the travel demand model were compared to the same 3-hours of weekday crash data. **Figure 16** presents the relationship of serious crash rates and roadway congestion for the region's non-freeway roadways.



The serious crash rate per vehicle-mile travelled is highest for uncongested non-freeway roadways. Non-freeway roadways with higher levels of congestion exhibit lower crash rates.

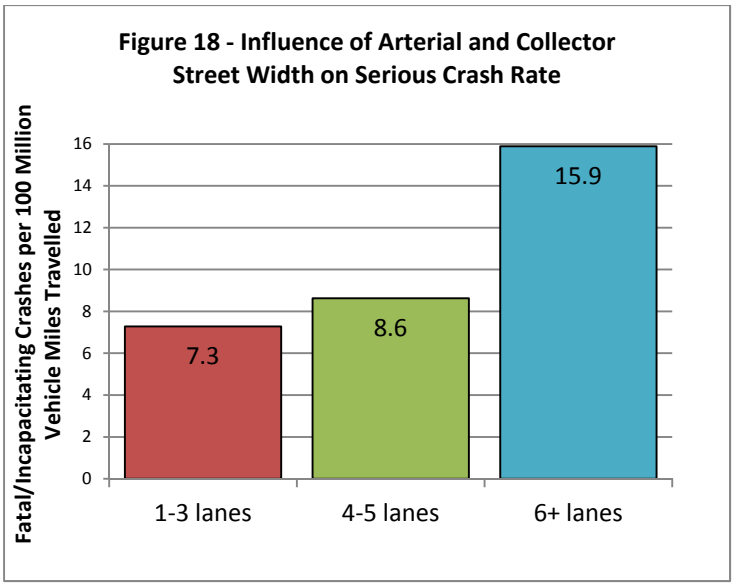
7) Higher levels of congestion on freeways are correlated with higher serious crash rates, except for severe congestion, which is correlated with lower serious crash rates.

For freeways, the analysis of crashes by congestion yielded different results. **Figure 17** shows that serious crashes on freeways increase to a point as congestion increases. However, in severe congestion, the serious crash rate declines. This could be attributed to the speed differentials experienced during congested conditions. As congestion increases on freeways, stop and go conditions and mixes of speeds could contribute to higher crash rates. However, in severely congested conditions the speed of all vehicles is diminished and serious crashes are less frequent.

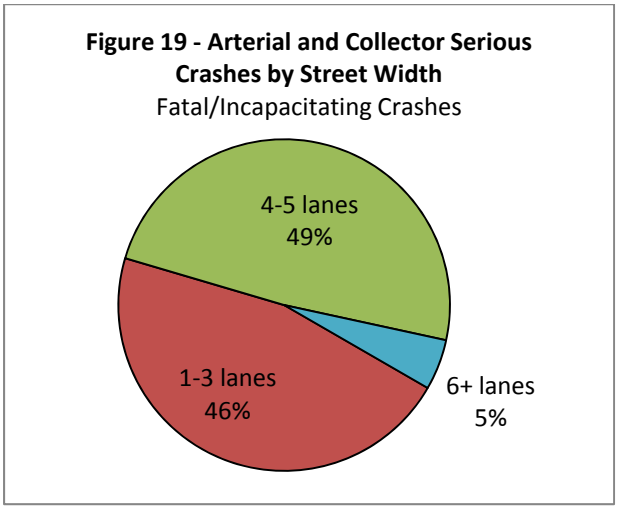


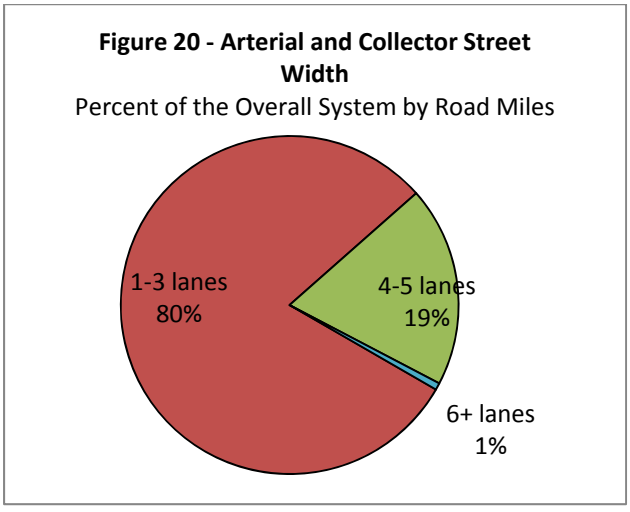
8) Surface streets with more traffic lanes have higher crash rates per road mile and per VMT. This follows trends documented in AASHTO's Highway Safety Manual. Roadway designs that increase speed lead to increased crash severity in the absence of specific safety considerations.

Figure 18 presents the crash rate per traffic volume for the non-freeway system in the region. As the number of traffic lanes increases so does the serious crash rate per VMT. The influence of street width is consistent with the influence of roadway classification. The crash rate increases dramatically for roadways with 6 or more lanes. Similar patterns are documented in AASHTO's Highway Safety Manual (2010), Chapter 12.

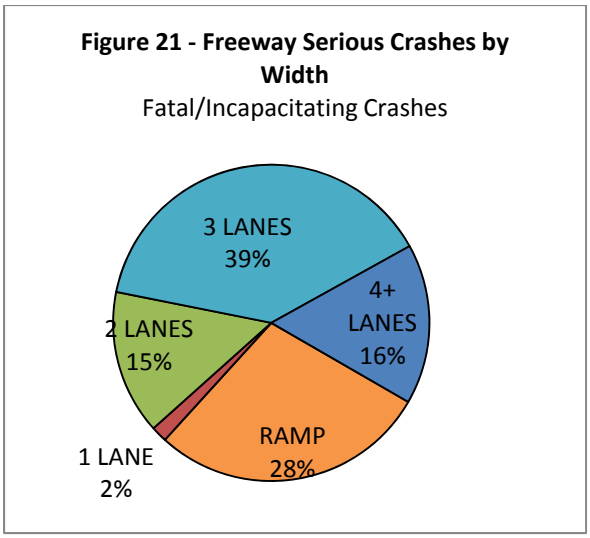


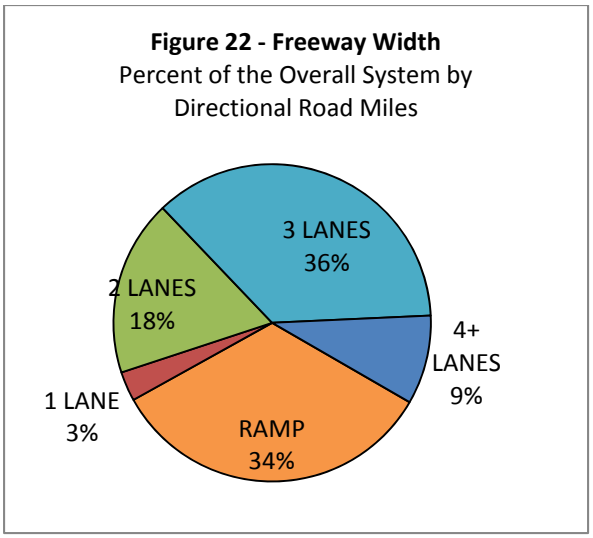
Roadways with more traffic lanes are the location of a disproportionate number of serious crashes in relation to both their share of the overall system and the vehicle-miles travelled they serve. **Figure 19** shows the percent of serious crashes on arterials and collectors by the number of lanes. **Figure 20** displays the percent of arterials and collectors by number of lanes as a percent of the overall system road miles. Four to five lane roadways account for 49 percent of all non-freeway serious crashes, but comprise only 19 percent of the overall system. Six plus lane roadways account for 5 percent of all non-freeway serious crashes, but comprise only 1 percent of the overall system.



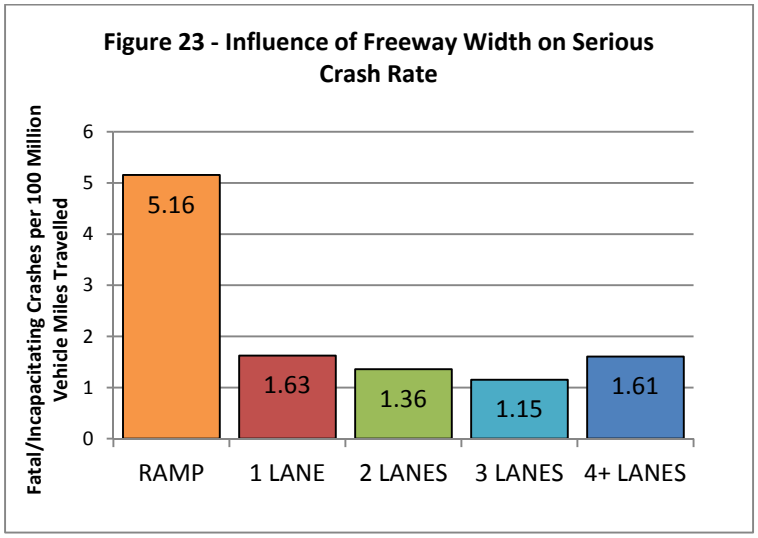


Figures 21 and **22** present the distribution of freeway crashes by number of lanes. They also present the proportion of freeway crashes that occur on ramps.





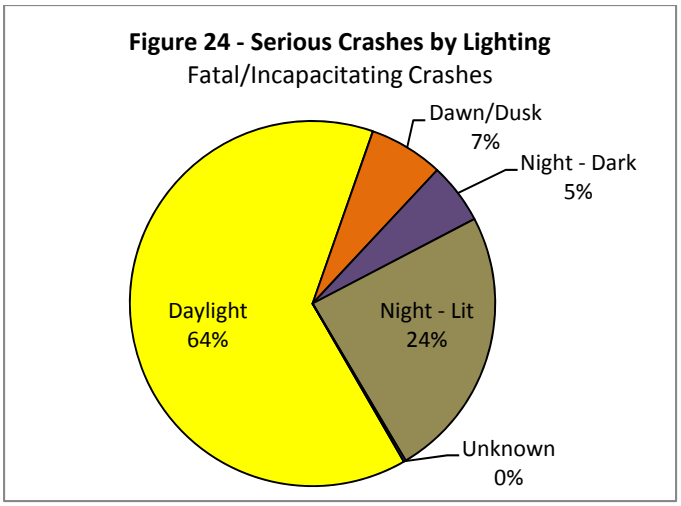
The influence of freeway width is not as pronounced as for non-freeway roadways. Freeways with three directional lanes (including auxiliary lanes) exhibit the lowest crash rates, while the rate increases for freeways with more or fewer lanes (**Figure 23**). Ramps exhibit a higher rate per mile travelled due to slowing of vehicles, merging, and ramp terminal intersections(**Figure 21**).



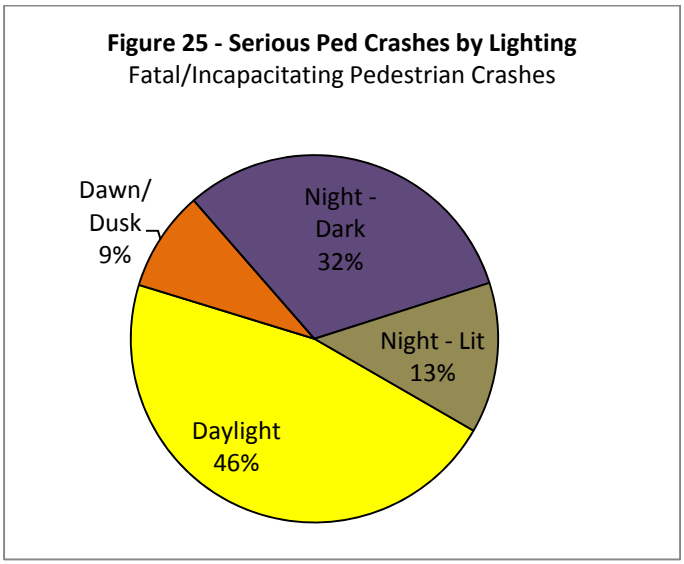
BICYCLE & PEDESTRIAN

9) Serious pedestrian crashes are disproportionately represented after dark. Serious nighttime pedestrian and bicycle crashes occur disproportionately where street lighting is not present.

Figure 24 shows that almost two-thirds of all serious crashes occur during the day.



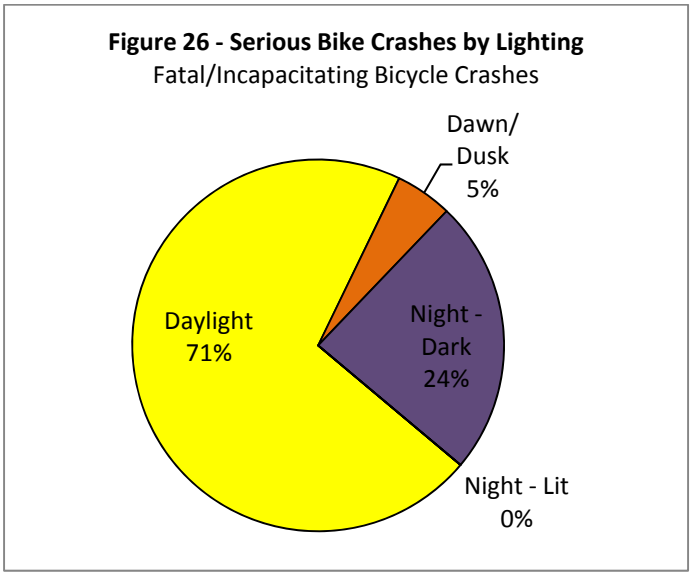
However, when looking at just pedestrians, the number increases to 45 percent of serious crashes occurring at night (**Figure 25**).



10) Serious pedestrian and bicycle crashes occur disproportionately where street lighting is not present.

Street lighting appears to be an important factor for pedestrians and cyclists. **Figure 24** above illustrates that while 29% of crashes occur at night, only 5% happen where street lighting is not present. This means that 17% of all night time crashes happen where street lighting is not present. This is dramatically different when looking at bicyclists and pedestrians. **Figure 25** shows that 45% of serious pedestrian crashes occur at night, but 71% of these nighttime serious crashes happen where lighting is not present. For bicyclists, the nighttime serious crash rate is even higher. **Figure**

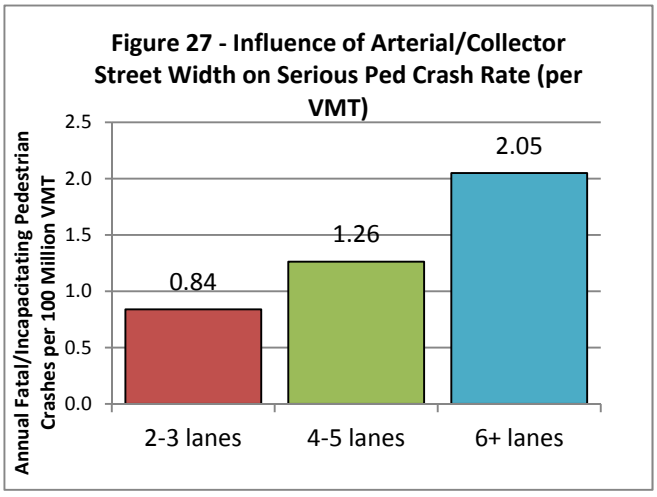
26 shows that 24 percent of serious bicycle crashes occur at night, but 100% of these crashes happen where lighting is not present.



Lighting appears to be particularly important for the safety of pedestrians and bicyclists.

11) Streets with more traffic lanes have higher serious pedestrian crash rates per mile and per VMT.

As can be seen in **Figure 27**, when normalized by motor vehicle traffic volume, the serious pedestrian crash rate on roadways with more traffic lanes is still substantially higher than on narrower roads. Roadways with more traffic lanes are particularly hazardous to pedestrians. Many transit routes follow these multi-lane roadways, increasing the need for people to cross these roadways safely.



The influence of street width is consistent with the influence of roadway classification for serious pedestrian crashes as seen in **Figure 28**.

Figure 28 - Serious Ped Crashes by Street Width

Fatal/Incapacitating Pedestrian Crashes

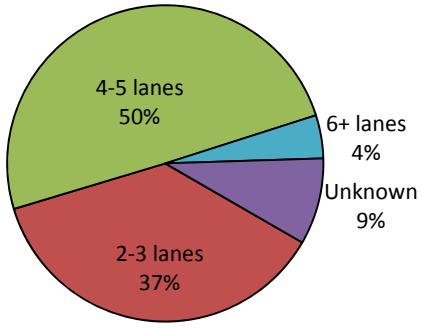
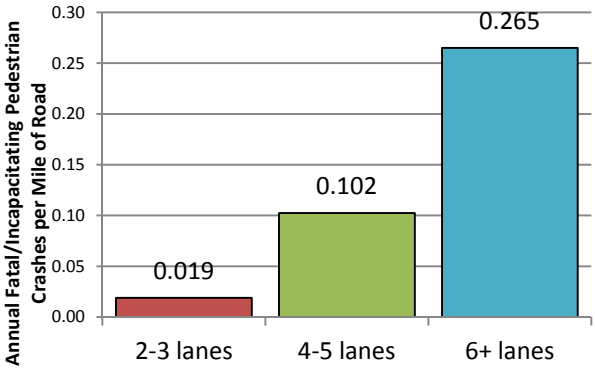


Figure 29 - Influence of Street Width on Serious Ped Crash Rate



Wider roadways are the location of a disproportionate number of serious pedestrian crashes in relation to both their share of the overall system (**Figures 28 and 29**) and the vehicle-miles travelled they serve (**Figure 30**). The serious pedestrian crash rate increases dramatically for roadways with four or more lanes, and again for roadways with six or more lanes.

4.0 RECOMMENDATIONS

For the Regional Transportation Safety Plan to accomplish the RTP target for reducing fatalities and serious injury crashes by 50 percent, the findings must result in action. There are many partner organizations that share the responsibility of improving safety in Portland Metropolitan region, including federal, state, regional, and local governments and other safety stakeholders. The Regional Safety Workgroup has developed a list of short-term and long-term solutions to help address the findings presented in Section 3 and in the State of Safety in the Region report.

Understanding budget and resource constraints, the Regional Safety Workgroup has highlighted short-term recommendations for the region to pursue in the near future to better address transportation safety and work to reduce fatalities and serious injuries. Longer term recommendations, which are necessary if the region is to achieve the targeted reduction in serious crashes, are also identified for future efforts and policy revisions.

SHORT-TERM RECOMMENDATIONS

	Finding	Strategy or Strategies	Actions	5 E's of Safety	Resources Currently Available?	Involved Agencies	Workgroup Recommendation
All Crashes	***Alcohol and drugs, excessive speed, and aggressive driving are the most common contributing factors in serious crashes.. Crashes involving alcohol and drugs have a much higher likelihood of being fatal than other crashes.***	Policies to reduce the prevalence of speeding and aggressive driving on surface streets and to reduce the prevalence of driving under the influence of intoxicants.	• Convene and/or coordinate targeted workgroup of safety professionals (law enforcement, EMS, etc.) to develop targeted strategies to reduce the prevalence of driving under the influence of alcohol and/or drugs, speeding and aggressive driving.	Education, Enforcement, Engineering, and EMS	No	Possibly Metro	A regionwide workgroup is needed to complement state and local efforts. Metro could lead if grant funds become available.
Surface Streets	***Arterials roadways have the highest serious crash rate per road mile and per VMT. 59% of the region's serious crashes, 67% of the serious pedestrian crashes, and 52% of the serious bike crashes occur on arterial roadways.***	A regional arterial safety program to focus on corridors with large numbers of serious crashes, pedestrian crashes, and bicycle crashes.	• Develop systemic performance measures for identifying high severity crash arterials across the region. Use strategies including Highway Safety Manual strategies to address arterial safety, such as medians, speed management, access management, roundabouts, and road diets.	Engineering and Evaluation	Need GIS and data analysis support.	Metro	Use RTP performance measure to prioritize safety projects in region. Develop a regional arterial safety workgroup to identify tools and strategies.
Bicycle & Pedestrian	***Serious pedestrian crashes are disproportionately represented after dark. Serious nighttime pedestrian and bicycle crashes occur disproportionately where street lighting is not present.***	A focus on crosswalk and intersection lighting where pedestrian and bicycle activity is expected, as well as programs to encourage use of reflective equipment by pedestrians and bicyclists.	• Research pedestrian/bicycle facility lighting best practices. • Ensure bike routes and crosswalks – marked and unmarked – are adequately lit. • Safety education campaign around "See and be seen." • Further explore bicycle and pedestrian safety and identify projects as part of the Regional Active Transportation Plan currently underway.	Education, Engineering, and Evaluation	Yes	Locals, Metro, ODOT	
	Streets with more traffic lanes have higher serious pedestrian crash rates per mile and per VMT.	Policies to improve the quality and frequency of pedestrian crossings on arterials and multi-lane roadways, as well as enforcement of right-of-way at crosswalks.	• Develop safe crosswalks on arterials and multi-lane roads, generally adhering to the region's maximum spacing standard of 530 feet and at all transit stops. • Enforce existing laws through crosswalk enforcement actions.	Education, Engineering, Enforcement, and Evaluation	Yes	Locals, Law enforcement	
	Streets with more traffic lanes have higher serious bicycle crash rates per mile.	Policies to encourage protected bicycle facilities along roadways with high motor vehicle traffic volumes and/or speeds.	• Along high-volume and/or high-speed roadways, where feasible, provide protected bicycle facilities such as buffered bike lanes, cycle tracks, multi-use paths, or low-traffic alternative routes	Education, Engineering and Evaluation	Yes	Locals, Metro, ODOT	Incorporate into Metro design best practices and incorporate into new projects as cost feasible.

LONG-TERM RECOMMENDATIONS

	Finding	Strategy or Strategies	Actions	5 E's of Safety	Resources Currently Available?	Involved Agencies	Workgroup Recommendation
All Crashes	***Increases in vehicle miles travelled (VMT) generally correlate with increases in fatal and serious crashes.***	Policies that limit the need to drive, and therefore limit vehicle-miles travelled.	• Continued support of regional and state policies that seek to reduce VMT, including multimodal facilities, transit, RTO, and TDM.	Engineering and Education	Yes	Locals, Metro, TriMet, ODOT	
Surface Streets	***The most common serious crash types on surface streets were rear end and turning. For fatal crashes, the most common types were pedestrian and fixed object.***	Develop more detailed understanding of causes of the most common serious crashes in the region and the effectiveness of countermeasures.	• Develop safety best practices based on the HSM for the region to address the most prevalent crash types.	Engineering	No	Locals, Metro, TriMet, ODOT	
			• Further analyze crash types.	Evaluation and Engineering	No	Metro, ODOT	
	Higher levels of congestion on surface streets are correlated with lower serious crash rates, likely due to lower speeds.	Revisions to state, regional, and local mobility standards to consider safety as equally important, at a minimum, as vehicular capacity.	• Elevate safety to equal importance as mobility in regional policy as part of the next RTP update that will start in 2013.	Education and Evaluation	Yes	Locals, Metro, ODOT	
	Higher levels of congestion on freeways are correlated with higher serious crash rates, except for severe congestion, which is correlated with lower serious crash rates.	Revisions to state, regional, and local mobility standards to consider safety as equally important, at a minimum, as vehicular capacity.	• Elevate safety to equal importance as mobility in regional policy as part of the next RTP update that will start in 2013.	Education and Evaluation	Yes	Locals, Metro, ODOT	
	Surface streets with more traffic lanes have higher crash rates per road mile and per VMT. This follows trends documented in AASHTO's Highway Safety Manual. **Roadway designs that increase speed lead to increased crash severity in the absence of specific safety considerations.**	A regional arterial safety program to focus on corridors with large numbers of serious crashes, pedestrian crashes, and bicycle crashes.	• Include safety as an element of the update to the Metro Best Design Practices guidebooks. • Use strategies including Highway Safety Manual strategies to address safety on multi-lane roadways, such as medians, speed management, access management, improved pedestrian crossings, roundabouts, and road diets.	Engineering and Education	Yes	Locals, Metro, ODOT	
Data	***This report identifies high-level trends in regional crashes, but more detailed work is needed to identify specifically where and why they are occurring in disproportionate amounts.***	More detailed analysis of the causes of serious crashes, pedestrian crashes, and bicycle crashes in the region	• Collect, maintain and analyze ODOT crash data. • Provide regional crash data for use in TSP updates and other requests.	Evaluation	Yes, except for GIS support and data analysis	Metro	
Additional Research	***The analysis of the relationship between land use, neighborhood design, and safety was inconclusive. More research is needed to establish reliable relationships between land use, neighborhood design, and safety.***	More detailed research on the relationship between land use patterns and safety	• Work with OTREC to develop research project to further explore the linkage between transportation safety, land use and the built environment.	Evaluation	No		

APPENDIX A - ADDITIONAL LOCAL GOVERNMENT SAFETY ACTIONS AND PROGRAMS

The following are a more detailed listing of the summary of activities provided in Section 2.0 Local Agencies.

Washington County - Washington County addresses safety issues for all modes of transportation by regularly monitoring its transportation facilities, improving its transportation plans, participating in the activities of a variety of local and regional boards and agencies, and maintaining a robust website. The website promotes topical safety issues such as vegetation removal; construction; back to school; winter weather; new laws; and share the road. Washington County maintains and annually reviews a Safety Priority Index System (SPIS) list to identify intersections with a history of moving up on the list. Washington County also participated in ODOT's OASIS (Oregon Adjustable Safety Index System) program which is an all roads SPIS list.

Washington County has an active Traffic Safety Campaign Committee whose goal is to facilitate coordination with other agencies to maximize the exposure of safety messages to the public. Complementary county policies aim to improve safety, including: (1) a midblock crossing policy to facilitate trail development; (2) a "Minor Betterment" program which funds the construction of safety improvements including sidewalk fill-ins and ADA ramps; and (3) an "access spacing standards" policy which is considered during project development review and in Capital Improvement Program projects.

Several Washington County employees perform tasks directly targeting public safety, including: (1) a bicycle/pedestrian specialist who prepares policy, provides planning, design, maintenance and operations guidance, and acts as a facilitator with bicycle/pedestrian advocacy groups, other agencies and other departments within the county; (2) a school safety coordinator who oversees the Safe Routes To School program who also works closely with local school districts, transportation safety personnel to assist with improving the safety of school walk routes and increasing the numbers of kids walking and biking to school; and (3) a neighborhood streets program coordinator who coordinates the installation of traffic calming devices including speed display reader boards.

Finally, in addition to the above, Washington County monitors the crashes at intersections where a flashing yellow arrow has been installed and has implemented at some of these intersections "pedestrian friendly logic" which eliminates the FYA/pedestrian conflict at intersections running on the latest controller hardware; participates in ODOT's Tripcheck local entry program; and worked with the Commission for the Blind to install audible pedestrian signal equipment at some intersections.

City of Portland – The City of Portland conducts the following safety-related actions:

1) Dedicated staff and resources to implementing engineering, education, and enforcement along designated high crash corridors. Portland Transportation has multiple staff members working on engineering and education solutions that impact transportation safety on specific corridors and Portland Police continue to address enforcement along these stretches of roadway.

2) Annual Transportation Safety Summit, featuring presentations from transportation industry leaders. Over 200 people typically participate in the Summit and enjoy opportunities to visit transportation related vendors, share information, discuss safety issues, and network with others. This year's Summit will be held on March 13, 2012.

3) Pedestrian/Driver Safety Trainings, including translations as needed

- Portland Walks Be Safe! training to learn how to continue to make Portland a GREAT place to walk, drive and take transit.
- Every Corner Is A Crosswalk training to learn Oregon crosswalk laws for drivers and pedestrians.
- Trauma Nurse Talk Tough "Young Driver" presentations.
- Active Living for Older Adults the StreetSmart Way Pilot Program to share ideas and develop a pedestrian safety education/encouragement program for adults 60+ in the community.
- Beacon Buddies training to learn what Rapid Flash Beacons are and how to use/respond to them as a pedestrian and as a driver.
- Development of “Mr. Sharrows” bicycle and driver training about sharrow pavement markings.

4) Partnership with Portland Police Bureau for Crosswalk Enforcement Actions, resulting in citations to drivers, bicyclists and pedestrians that do not follow Oregon law when pedestrians are crossing at marked or unmarked crosswalks.

5) Over-the-Street Banners and billboards installed on high crash corridors with rotating safety messages.

6) Safe Routes to School Program to improve walking and bicyclist routes to school and safer auto circulation around the school.

7) Neighborhood Greenways Program to increase the network of residential streets that connect schools, parks, and provide access to business and transit.

8) Pedestrian Fatality Research Project (Tri-Met, PBOT, ODOT) to better understand pedestrian fatalities, identify crash trends, identify countermeasures for prevention.

9) Other Regional Partner Efforts

- “Share the Road” Bicycle-Pedestrian-Motorist Safety Class offered by Multnomah County Circuit Courts, Legacy Emanuel Hospital and Portland Police to increase education of and compliance with Oregon law that applies to motorists, pedestrians and bicyclists who share our roadways. The goal is to reduce preventable crashes which cause property damage, injury and death to the citizens of our community.
- ACTS Oregon provides car seat check clinics, distributes car seats and booster seats to low-income families and present assemblies at public schools in coordination with Safe Routes

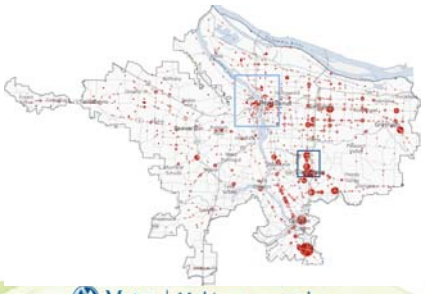
to Schools. (This specifically supports State Emphasis Area #7.) **ACTS Oregon staff are interested in participating in the Metro Safety Committee.
- BTA is working on a Vision Zero project.
- Willamette Pedestrian Coalition may have some projects in the works – it would be good to check with them.

City of Gresham – The City of Gresham puts a high importance on safety with a number of safety policies, programs and projects:

1. The City of Gresham has a Transportation Advisory Committee that provides recommendations for safety of policies, programs and projects.
2. Tack safety data through analysis of annual top 10 crash locations in the city through inputs of state accident data into a GIS system. The analysis is to better understand fatalities and injury accidents, identify crash trends, monitor issues and identify countermeasures for prevention. Specific project development relies on a more detailed assessment of accident type and severity.
3. The city's bicycle policies include bike lanes on all arterial streets, buffered bike lanes where feasible, implement NACTO design recommendations where feasible and off-street bike facilities are designed to establish safe and convenient routes separate from auto traffic or bicycles, walking and other non-motorized users.
4. City policy provides for future street connections and logical continuation of the City Street System to ensure safe and convenient pedestrian circulation, and safe and comfortable bicycle network.
5. Implemented Bicycle Action Plan and was awarded a bronze level certificate proclaiming Gresham to be a Bicycle Friendly Community by the League of American Bicyclists in 2010.
6. Provide Safety Education Program to enhance safety for bicyclists, walkers, transit users and motorist and to teach all to share the road. Other programs and amenities that support bicyclist, walkers and transit users include: bike rack installations, bike helmet distributions and bike maps.
7. Partner with Gresham Police for Crosswalk Enforcement Actions, resulting in warnings or citation to drivers, bicyclists and pedestrian that do not follow Oregon Cross Walk Laws.
8. Develop and implement Safe Routes to School Program to implement walking and biking routes to schools and to enhance auto circulation around schools.
9. Provide Neighborhood Traffic Calming and Speedwatch Programs to allow residents to participate in solving neighborhood problems. Such as speed bumps and digital speed advisory signs.
10. Curb Ramp Safety Program works independently from street repair to install and upgrade curb ramps citywide to meet ADA standards. School zones take priority. Other priority areas for ramp construction are identified in pedestrian districts of Rockwood, Downtown Gresham, and Civic Neighborhood.
11. Infill missing sidewalk links project. This includes inventory of missing links and prioritization based on city advocacy group to provide safety criteria.

12. Modify traffic signals to give more time to cross street and meet current ADA standards (from 3.5'/sec. to 4'/sec.)
13. Enhance pedestrian safety by installing Rapid Rectangular Flashing Beacons (RRFB) at mid block crossings.
14. New directional signage provides greater information and directions to provide safe and convenient access for cyclists and pedestrians on designated routes to specific destinations such as libraries, parks, schools, and trails.

Regional Transportation Safety Plan:
Implementing the Recommendations



Metro | *Making a great place*

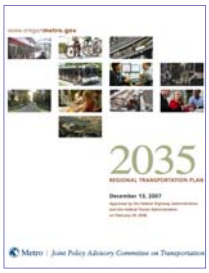
Background

- 2008 federal certification review FHWA recommendation
- MPOs across the country have struggled incorporating safety into the planning process
- FHWA sponsored workshop in fall 2009

2

Regional Vision for Safety

- One of the 6 Desired Outcomes
- 2035 RTP Goal



4

Getting Started

- Convened Regional Safety Workgroup
  - 2035 RTP performance target
  - State of Safety in the Region report (http://www.oregonmetro.gov/regionalmobility)
  - Regional Transportation Safety Plan

5

The Problem

- US roads
  - 2000 – 2009: 411,212 people killed
  - Average of one person killed every 13 minutes….24/7 for 10 years straight
  - Leading cause of accidental deaths
  - Leading cause of all deaths, age 15 – 34
- Metro region roads
  - 2007 – 2009: 159 people killed, 1,400+ severely injured
  - Societal costs of $958 Million/year

3

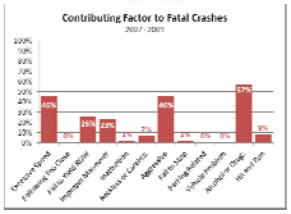
What are the general patterns?

- Arterials are the major safety challenge in the region
- Alcohol/Drugs, Speed, and Aggressive Driving are major factors to be addressed
- Higher VMTs = more serious crashes
- Streets with more lanes = higher serious crash rates, particularly for people walking
- Risk for people walking increases most after dark
- Street lighting is important for bikes and peds

6

Contributing Factors

- Alcohol and Drugs
- Excessive Speed
- Aggressive Driving

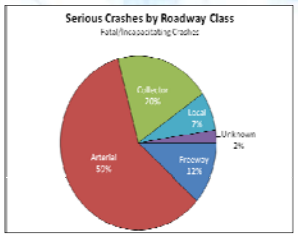


Workgroup Recommendation: Convene safety service professionals (law enforcement, education, EMS etc.) to focus on these behavioral contributing factors.

7

Roadway class

- Arterials are the major safety challenge in the region.

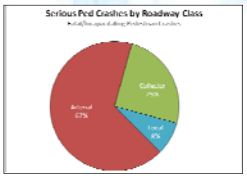


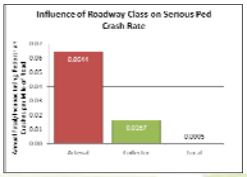
Workgroup Recommendation: Develop arterial safety program to identify high severity crash arterials across the region.

8

Pedestrian Crashes #1

- 67% of serious ped crashes happen on arterials
- Wider roads are over-represented



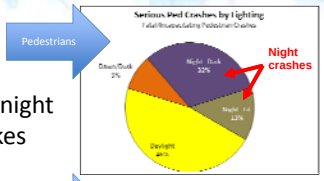


Workgroup Recommendation: 1) Develop safe crosswalks on arterials & multi-lane roadways, 2) Crosswalk enforcement actions

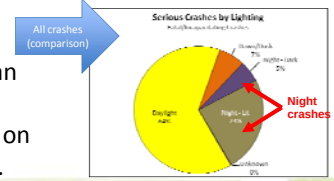
9

Pedestrian Crashes #2

- More crashes at night than autos or bikes



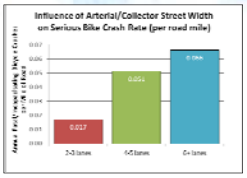
Workgroup Recommendation: Improved pedestrian crossings, including lighting, with focus on multi-lane arterials.



10

Bike Crashes

- Serious bike crash rate increases with street width



Workgroup Recommendation: Provide protected bike facilities, where feasible, along high volume and/or high speed roadways.

11

Discussion

12

MTIP Programming Options for TPAC Consideration

High Capacity Transit Bond Payments		$48m
Metro Planning and Regional Programs		$26m
Active Transportation	(75%)	$26m
Green Freight	(25%)	$8.7m
One Time "extra" funding		$38m
Total Funding available 2016-19		**$147m**

Concepts for Distribution "Extra funding"

Jobs Creation / Tiger Application Projects / Industrial Lands Access
Funding this category would improve access to industrial lands, create jobs and improve livability as defined in the Tiger Grant criteria to be implemented.

The three previously identified regional priorities include:
1) Brookwood (Huffman & 253rd Priority Improvements from the IAMP)
2) Troutdale (Graham Road, Swigert Way, 40 Mile Loop to Sandy River Trail)
3) Sunrise (Lawnfield Road and Multi-Use Path)
4) ?????? Additional projects that meet the tiger criteria may also be considered for funding.

Corridor Safety Improvements
An MTIP grant category should be developed that allows facility owners to submit innovative corridor safety project applications. In addition to addressing safety goals, the amount of match funding from the facility owner would be a significant factor to ensure MTIP funding is able to reach as many priority locations as possible. The region safety group could review the applications (or Metro, ODOT and FHWA?) and could provide rankings for consideration by JPACT. Depending on the structure, ODOT may be able to provide some additional funding to projects like these in addition to programmed MTIP funds, but can't commit at this point.

(Example corridors may include Powell, Barber, TV Highway, Portland's High Crash Corridors)

Jurisdictional Transfers
For some time now local and regional leaders have requested ODOT transfer roads to local jurisdictions to allow for more local control and to facilitate land use and community enhancement objectives. In some cases local governments are asking for enhancements to these roads before they would be willing to accept them. MTIP funding could be used to help provide the improvements necessary to enable the transfers.

(Examples would be 82nd Ave., Hwy 43, Hall Blvd., TV Highway, Lombard)

Implementation of Regional Plans
Lots of time and effort goes into developing these regional and facility specific plans. MTIP funds could be designated to implement sidewalk connections, crossings and safety improvements or other identified priority outcomes.

(Examples are EMC, TV Highway, Powell, Barber (SW Corridor)