



## AGENDA

### Middle Rogue Metropolitan Planning Organization Technical Advisory Committee (TAC)

**Date:** *Thursday, November 5, 2015*

**Time:** *1:30 p.m.*

**Location:** *Courtyard Conference Room, Grants Pass City Hall, 101 NW 'A' Street, Grants Pass, Oregon*

**Phone :** *Sue Casavan, RVCOG, 541-423-1360*  
MRMPO website : [www.mrmppo.org](http://www.mrmppo.org)

1. Call to Order/Introductions/Review Agenda .....Chair
2. Review/Approve Minutes (Attachment #1) .....Chair

#### **Action Items:**

3. Regional Transportation Plan (RTP) Chapter 10 Review .....Greg Stabach

**Background:** The MRMPO TAC is being asked to review, provide input and comments, and a recommendation to the Policy Committee on the Chapter 10 *Environmental Considerations* draft document. Staff will provide an overview of the chapter.

**Attachment:** #2 – Memo, RTP Draft Chapter 10, RTP Environmental Maps (Maps posted at link below on website):

[http://mrmppo.org/images/TAC/Meeting%20Materials/2015/Attach2\\_DraftEnvConsid\\_Maps.pdf](http://mrmppo.org/images/TAC/Meeting%20Materials/2015/Attach2_DraftEnvConsid_Maps.pdf)

**Action Requested:** Make a recommendation to the Policy Committee.

4. Regional Transportation Plan (RTP) Chapter 9 Review .....Andrea Napoli

**Background:** The MRMPO TAC is being asked to review, provide input and comments, and a recommendation to the Policy Committee on the Chapter 9 *Air Quality* draft document. Staff will provide an overview of the chapter.

**Attachment:** #3 – Memo, RTP Draft Chapter 9

*Action Requested:* Make a recommendation to the Policy Committee.

**5. Regional Transportation Plan (RTP) Chapter 12 Updates.....Andrea Napoli**

*Background:* The MRMPO TAC is being asked to review updates from October meeting and forward a recommendation to the Policy Committee on the Chapter 12 *Safety and Security* draft document. Staff will provide an overview of the updates.

*Attachment:* #4 – Memo; RTP Draft Chapter 12

*Action Requested:* Make a recommendation to the Policy Committee.

**6. Regional Transportation Plan (RTP) Chapter 5 Revisions .....Andrea Napoli**

*Background:* The MRMPO TAC is being asked to review revisions to the Transportation Options (TO) section of the Chapter 5 *Existing Transportation System* draft document. Staff will provide an overview of the chapter.

*Attachment:* #5 – RTP Draft Chapter 5 TO section

*Action Requested:* Make a recommendation to the Policy Committee.

**7. MRMPO Update ..... Andrea Napoli**

**8. Public Comment\* .....Chair**

\*(Limited to one comment per person, five minute maximum time limit)\*

**9. Other Business / Local Business .....Chair**

Opportunity for MRMPO member jurisdictions to talk about transportation planning projects.

**10. Adjournment .....Chair**

- The next Middle Rogue MPO TAC meeting will be **Thursday, December 3, at 1:30 p.m. in the Courtyard Conference Room at Grants Pass City Hall.**
- The next Middle Rogue MPO Policy Committee meeting will be **November 19, at 2:30 p.m. in the Courtyard Conference Room at Grants Pass City Hall.**

IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT SUE CASAVAN, 541-423-1360. REASONABLE ADVANCE NOTICE OF THE NEED FOR ACCOMMODATION PRIOR TO THE MEETING (48 HOURS ADVANCE NOTICE IS PREFERABLE) WILL ENABLE US TO MAKE REASONABLE ARRANGEMENTS TO ENSURE ACCESSIBILITY TO THIS MEETING.



Kelli Sparkman suggested “regionally significant” be defined more clearly and a typo in chart 6.1

change to MRMPO.

Scott Chancey indicated that transit did not show operating funding in the medium or long range section. He will send the information to Napoli.

**On a motion by John Krawczyk and seconded by Chuck DeJanvier the committee forwarded recommendation for approval to the Policy Committee.**

#### **4. Regional Transportation Plan (RTP) Chapter 7 Review**

Dan Moore presented an overview of RTP Chapter 7 *Transportation Sustainability*:

He informed members that sustainability strategies are now being considered for transportation plans and the measures for the most part come from the Oregon Transportation Plan.

He briefly discussed sustainability characteristics and strategies.

Sparkman mentioned that the first part discusses economic vitality as a distinctive characteristic, but is not mentioned again in the strategies. Members felt it was covered under other strategies. Krawczyk suggested changing taking strategies 2 through 5 from Economic Vitality 4.1 and adding 'Creation of Jobs' as a Creating Communities strategy.

**On a motion by Lora Glover and seconded by John Krawczyk the committee forwarded recommendation for approval to the Policy Committee with the above changes to Economic Vitality.**

#### **5. Regional Transportation Plan (RTP) Chapter 12 Review**

Dan Moore presented an overview of RTP Chapter 12 *Safety and Security*:

He briefly discussed and explained crash data and noted in the future a more defined safety plan would be beneficial.

Chuck DeJanvier mentioned that the Josephine County Sheriff's office has been downsized and does not respond to most accidents. He thought a lot of accidents were probably not reported in the last couple years. Lora Glover thought there might be some limitation within the city limits of Grants Pass also and she will get the criteria to Moore.

Krawczyk asked if natural disasters were addressed in the RTP and Moore answered no. Members felt there should be some information about earthquakes and perhaps identifying alternative routes within the MRMPO. Sparkman noted in Section B., the last paragraph, last sentence it refers to (list) and Moore indicated that he will finish that with a list of parallel roads.

**Members would like the chapter to come back to the committee in November after addressing further safety and natural hazard issues.**

#### **6. MRMPO Planning Update**

Moore mentioned that RTP chapters, Air Quality Conformity and Transportation Improvement Program documents will be brought to the committees. In November an MPO boundary adjustment will be on the agenda.

Chancey coordinated a meeting with RVTB to discuss the Transportation Options, will be brought back in November. He said money is primarily spent in their district because there is a local match requirement and they are using their own district property tax base to make that match and are obligated to spend it in their own district boundary. There are some activities they offer within this MPO also.

**7. Public Comment -**

None received.

**8. Other Business/Local Business -**

None received.

**9. Adjournment -**

The meeting was adjourned at 2:17 p.m.

## Chapter 10 – Environmental Considerations

The Environmental Considerations Chapter includes a discussion of potential environmental impacts, avoidance and mitigation activities at the policy and strategy level rather than from a project-specific level. This analysis is a specific requirement of the Moving Ahead for Progress for the 21st Century (MAP-21), signed into law in 2012.

This discussion was developed in consultation with federal, state and tribal wildlife, land management, and regulatory agencies, as shown on Table 10.1.

Table 10.1

Agency
Confederated Tribes of Siletz Indians
Cow Creek Band of Umpqua Tribe of Indians
Oregon Department of Environmental Quality (DEQ)
Oregon Department of State Lands (DSL)
Oregon Department of Fish and Wildlife (ODFW)
Oregon Department of Transportation (ODOT)
Oregon Department of Land and Conservation (DLCD)
Oregon State Historic Preservation Office (SHPO)
U.S. Army Corps of Engineers (USACE)
U.S. Department of Commerce, National Marine Fisheries Service (NMFS)
U.S. Department of Transportation Federal Highway Administration

(FHWA)
The Confederated Tribes of Grand Ronde
U.S. Department of Transportation Federal Transit Administration (FTA)
U.S. Environmental Protection Agency (EPA)
U.S. Fish and Wildlife Service (USFWS)

Environmental mitigation activities are defined in MAP-21 as strategies, policies, programs, actions and activities that over time will serve to minimize or compensate for the impacts to or disruption of elements of the human and natural environment associated with the implementation of the Regional Transportation Plan (RTP).

MAP-21 requires that metropolitan planning organizations, as part of the consultation process, discuss types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the plan. These activities should also be developed in consultation with Federal, State and tribal wildlife, land management and regulatory agencies (23 U.S.C. 134(i)(2)(D)).

To fulfill this requirement, a comparison of projects in the RTP to historic and environmentally-sensitive areas was conducted to determine the environmental impacts and potential mitigation activities that could be implemented in areas where a project intersects a resource area.

MAP-21 requires a discussion of potential mitigation activities for each environmental resource affected by the RTP. These activities will be considered if the project, at

the time of implementation, would produce any effect on the environment.

This RTP includes non-federally-funded regionally significant projects for air quality purposes and projects that receive federal funds. Some environmental laws and regulations are applicable regardless of the funding source. This chapter will outline the applicability of those laws and regulations as related to expected funding.

## **A. Inventory and Mapping**

The MRMPO inventoried historic and natural resources within the MPO planning boundary. The work was coordinated with the appropriate federal, state, tribal, wildlife, land management and regulatory agencies.

The MRMPO collaborated with consultation partners to identify and obtain the most current, complete and accurate data possible from which to develop the inventory in this chapters.

This framework consists of a library of Geographical Information Systems (GIS) shape files (data layers); and a set of maps highlighting ecologically important areas, linkages within and outside of the valley, and conflicts with planned transportation projects or existing transportation structures (e.g., culverts).

Data was incorporated into GIS to create the maps that illustrate important environmental areas. Inventory and resource data are included in the discussion sections of this chapter; all maps appear in numerical order at the end of the chapter.

Environmental Considerations Maps 10.1 through 10.8 depict information pertaining to:

Prime Agricultural Soils, Orchards, and Vineyards

Prime Agricultural Soils, Viticulture Areas, Vineyards, and Orchards  
Wetlands and Floodplains  
Fish Passage Barriers, Salmonid Habitat, and Water Quality (TMDL) Limited Streams  
Wildlife movements  
Wildlife collision hotspots  
National Historic Buildings and Historic Register Roads

Details about selected maps appear below, with more in depth discussion of issues surrounding environmental features in the sections that follow. Map pages begin on page XXXXX.

**Prime Agricultural Soils, Viticulture Areas, and Vineyards, Map 10.1** -- RTP projects that are located on agricultural soils (irrigated soils classes 1-4). This soil information is derived from U.S. Department of Agriculture (USDA) soils data, which categorize soils into eight capability classes. Viticulture areas represent the areas that meet the criteria for High Value farmland within the Viticultural Area per ORS 195. Vineyard information for both counties is provided by Greg Jones, Professor of Environmental Science and Policy, Southern Oregon University.

**Wetlands, Floodplains, and Vernal Pools Map 10.2** – illustrates RTP projects that intersect the National Wetlands Inventory, Grants Pass Local Wetlands Inventory, Vernal pools, and FEMA's 100 Year Floodplain.

**Fish Passage Barriers, Salmonid Habitat, and TMDL (Water Quality Limited) Streams, Map 10.3** – Identifies fish passage barriers (primarily culverts and dams) and illustrates RTP projects that intersect with Salmonid habitat (Coho salmon, Chinook Salmon, and Steelhead) and TMDL

approved streams (water quality limited streams). Streams for which management plans (Total Maximum Daily Load action plans) have been approved are shown.

**Conservation Opportunity Areas, Wildlife Sensitivity, and Wildlife Linkages, Map 10.4** – Illustrates the Oregon Department of Fish and Wildlife's (ODFW's) Conservation Opportunity Areas were developed for the Comprehensive Wildlife Conservation Strategy to help identify priority areas for conservation actions that directly benefit wildlife and habitats, ODFW's wildlife sensitivity data, and ODFW's wildlife linkages which are key movement areas for wildlife, emphasizing areas that cross paved roads.

**Wildlife Movements, Map 10.5** – illustrates RTP projects that overlap with ODFW wildlife movement data, which are key movement areas for wildlife, emphasizing areas that cross paved roads.

**Wildlife Collision Hotspots Map 10.6** – illustrates RTP Projects that overlap with high frequency wildlife carcass incidents (from Oregon Department of Transportation dispatch records of carcass reports.) Includes only records of deer and elk.

**National Historic Sites, Districts and Road, Map 10.7** – The National Parks Service National Register of Historic Places mapped with the RTP projects. In addition, archaeologically sensitive areas identified in the region are mapped with RTP projects.

## B. Environmental Justice

Environmental Justice encompasses three fundamental principles, listed in the box at left. These principles work to identify and appropriately address disproportionately high and adverse health or environmental

effects on minority and low-income populations.

Environmental Justice stems from Title VI of the Civil Rights Act of 1964 and Executive Order 12898 of 1994. The latter, Executive Order 12898, states that federal agencies incorporate achieving Environmental Justice into their missions.

**MRMPO** maintains a separate civil rights plan: <http://MRMPO.org/files/Environmental-Justice-Plan-FinalDoc-10-23-2010.pdf>

One of the Middle Rogue Metropolitan Planning Organization's Environmental Justice goals is to achieve equal protection from environmental and health hazards and equal access to decision-making for all citizens of the MRMPO area in an effort to promote quality of life.

Environmental Justice principles are addressed through policy, as well as through actions by the **MRMPO** to promote equality. Through constant and consistent assessment the **MRMPO** will work to assure Environmental Justice.

## C. Environmental

### Considerations in Planning

It is both possible and appropriate to begin considering the environmental consequences of any policy, project, and/or program for addressing transportation deficiencies.

However, such consideration is not expected to be at the same level of detail as may be required by the National Environmental Policy Act (NEPA). It is important to note that a NEPA process is required for any transportation project receiving either Federal Highway Administration (FHWA) or Federal Transit Administration (FTA) funding.



## 1. Early Consideration of Environmental Consequences

A common principle of environmental laws and regulations is a stepped process that focuses on:

- Avoiding impacts to resources;
- Minimizing those impacts that are unavoidable, and
- If impacts are not avoidable, mitigating for those impacts.

If these processes can be considered at a regional level, projects may be able to advance through required environmental processes more quickly than projects whose impacts must be evaluated and considered independently.

## 2. Use of Environmental Information

Environmental information is typically collected and analyzed in the transportation planning process. The **MRMPO** maintains a GIS library of environmental data that can be used to identify and document potentially affected environmental resources. This information can then be used to identify opportunities to avoid or minimize environmental impacts of any alternative transportation solutions being considered, modify alternatives being considered, or potentially eliminate alternatives with unacceptable or greater environmental consequences.

Maps 10.1 through 10.8 were created by overlaying the planned transportation projects with environmental data including wetlands and vernal pools, floodplains, fish (salmonid) habitat, wildlife critical habitats and ecologically sensitive areas.

**Documentation** – Environmental information and/or analyses used in the

planning process, and environmental impact avoidance or minimization actions taken, should be thoroughly documented. This will allow information to be used again, or incorporated as evidence of mitigation, resulting in effective and expedited environmental review.

## 3. Evaluation of Impacts

The evaluation of the impacts a roadway project has on natural areas and historic resources shall take into account (23 CFR Part 777.7):

- a. The importance of the impacted wetlands and natural habitats
- b. The extent of roadway impacts on the wetlands and natural habitats
- c. Actions necessary to comply with the Clean Water Act, Section 404; the Endangered Species Act of 1973; and other relevant Federal statutes
- d. Evaluation of the importance of the impacted wetlands and natural habitats shall consider:
  - Wetland and natural habitat functional capacity
  - Relative importance of these functions to the total wetland or natural habitat resource of the area
  - Other factors such as uniqueness, aesthetics, or cultural values; and
  - Input from the appropriate resource management agencies through interagency coordination.
- e. A determination of the highway impact should focus on both the short and long-term effects of the project on wetland or natural habitat functional capacity.

#### **4. Avoidance, Minimization, Mitigation**

The MRMPO, utilizing GIS, species accounts, soil types and other relevant data, seeks to avoid or minimize environmental impacts. Where impacts cannot be avoided, efforts will be made to ensure appropriate mitigation. Additionally, the MRMPO works with other agencies to provide greater benefits to the environment regionally. Additional discussion of avoidance, minimization and mitigation appears in subsequent sections addressing specific resources.

The Rogue Valley Council of Governments has a Natural Resource Department that coordinates and facilitates resource projects within the region. Subsequently, this internal knowledge of natural resources, combined with regional collaboration, will lead to improved avoidance measures and natural resource mitigation activities.

Mitigation is the attempt to offset potential adverse effects of human activity on the environment. Mitigation is the last step of the avoidance and minimization process. The National Environmental Policy Act regulations define mitigation (40 CFR 1508.20) as follows:

1. Avoiding adverse impacts by not taking an action.
2. Minimizing impacts by limiting the degree of action.
3. Rectifying by repairing, rehabilitating, or restoring the affected environment.
4. Reducing or eliminating impacts over time through preservation and maintenance activities.
5. Compensating for an impact by replacing or providing substitute resources or environments. In most mitigation agreements, more of a

resource or habitat must be provided than was originally present. Ratios greater than 1:1 are required in part to compensate for unrealized losses and the inability of technology to completely restore the natural environment.

#### **5. Wetlands and Natural Habitats**

The MRMPO encourages progressive approaches to wetlands and natural habitat mitigation. These approaches include the development of conservation and mitigation banking agreements or the purchase of intact natural areas. Conservation and mitigation banks differ to some degree. Mitigation bank could refer to mitigation of any habitat, although they are typically referring to wetland mitigation per federal guidance for Compensatory Mitigation for Losses of Aquatic Resources, Federal Register / Volume 73, Number 70, Thursday, April 10, 2008 / Rules and Regulations, Army Corps of Engineers (COR), 33 CFR Parts 325 & 332, Environmental Protection Agency (EPA), 40 CFR Part 230.

Whereas conservation banks are oriented toward endangered, threatened and other at-risk species; habitats are selected and managed based upon the needs of those specific species. Roadway projects are linear, often resulting in many small, incremental impacts. Subsequently, on-site mitigation sometimes results in isolated wetlands and natural habitat that might not provide benefits commensurate with costs and time required to establish wetland and natural habitat functions.

Wetland or habitat banks have the ability to provide more wetland or habitat values and benefits per acre; consequently, the increased habitat benefits result in greater benefits to fauna, and often result in increased biodiversity. It is noteworthy that

the mitigation area needs to receive sufficient management to ensure their functions will be sustained in perpetuity. In some cases it may be mutually beneficial, both in preserving the environment and creating an effective transportation system, to preserve the same or similar habitats in relatively close proximity to the habitats being impacted. The MRMPO recognizes that the Rogue Valley provides valuable habitat along the Pacific flyway, one of four flyways nationwide. Therefore, the MRMPO will strive to lessen impacts to habitats upon which species are dependent.

Additionally, efforts will be made to establish and maintain regional collaboration, both in identifying potential mitigation areas and ensuring their management in perpetuity.

**Reducing Impacts** – There are a number of actions that can be taken to minimize the impact of roadway projects on wetlands or natural habitats (23 CFR Part 777.9).

- Avoidance and minimization of impacts to wetlands or natural habitats through realignment and special design, construction features, or other measures.
- Compensatory mitigation alternatives, either inside or outside of the right-of-way. This includes, but is not limited to, such measures as on-site mitigation, when that alternative is determined to be the preferred approach by the appropriate regulatory agency; improvement of existing degraded or historic wetlands or natural habitats through restoration or enhancement on or off site; creation of new wetlands; and under certain circumstances, preservation of existing wetlands or natural habitats on or off site. Restoration of

wetlands is generally preferable to enhancement or creation of new wetlands.

- Improvements to existing wetlands or natural habitats. Such activities may include, but are not limited to, construction or modification of water level control structures or ditches, establishment of natural vegetation, re-contouring of a site, installation or removal of irrigation, drainage, or other water distribution systems, integrated pest management, installation of fencing, monitoring, and other measures to protect, enhance, or restore the wetland or natural habitat character of a site.

## 6. Mitigation Banks

The MRMPO encourages the use of mitigation banks, or other habitat preservation measures, to offset habitat impacts. Banks will be approved in accordance with the Federal Guidance for Compensatory Mitigation for Losses of Aquatic Resources, Federal Register / Volume 73, Number 70, Thursday, April 10, 2008 / Rules and Regulations, Army Corps of Engineers (COR), 33 CFR Parts 325 & 332, Environmental Protection Agency (EPA), 40 CFR Part 230, or other agreement between appropriate agencies. Where feasible, the MPO will attempt to collectively conserve habitat areas that provide greater environmental benefits. Mitigation and conservation areas are shown on map 10.8

### Mitigation Bank Areas in the MRMPO

MAP-21 requires MPOs to provide a discussion of types of potential environmental mitigation activities and potential areas to carry out these activities. This section of the chapter provides an

overview of the potential areas to carry out mitigation activities.

There are no existing or proposed mitigation bank areas in the MRMPO area.

The MRMPO area is part of the service area for the Oregon Department of Transportation (ODOT) operated Vernal Pool Mitigation/Conservation Bank (Bank) near Central Point, used for ODOT projects.

ODOT began an extensive search for prospective vernal pool complex bank sites in 2005. Several prospective sites were viewed in the field by staff from ODOT, the U.S. Fish and Wildlife Service (USFWS), the Oregon Department of Fish and Wildlife (ODFW), the U.S. Army Corps of Engineers (Corps), the Oregon Department of State Lands (DSL), the Oregon Department of Environmental Quality (DEQ), the National Marine Fisheries Service (NMFS), and the U.S. Environmental Protection Agency (EPA).

The Bank is located near the intersection of Newland and Truax Roads, in White City, Jackson County, Oregon. Originally the Bank consisted of the two parcels that comprise 80.23 acres and located west of and directly adjacent to the Nature Conservancy's Whetstone Savanna Preserve (a registered Oregon Natural Heritage Resource) and are of similar character. In 2014, ODOT completed the purchase of four additional parcels (106 acres) adjacent and to the west and north of the original Bank parcels to serve as Individual Permittee Responsible Mitigation for ODOT's Highway 62: Interstate 5 to Dutton Road Project.

The adjacent preserve's acreage is approximately 106 acres of which roughly 13 acres is high functioning. The remaining

100 plus acres will be enhanced and restored to high functioning habitat. In 2014, approximately 14 acres of the property was restored, with additional phases of restoration slated for 2015 through 2017. Cumulatively, upon completion of restoration activities, approximately 196 acres of contiguous high functioning vernal pool complex will be protected and under management to sustain wetland functions and values

## 7. Wildlife Habitat

The Oregon Department of Fish and Wildlife's (ODFW) follows a conservation strategy that focuses on habitat restoration and maintenance to address the needs of game and nongame species.

The strategy highlights specific actions that can conserve Oregon's fish and wildlife when the chances of success are greatest before they become sensitive or endangered.

The strategy provides information about species and habitats in every region in Oregon and the issues affecting their present and future health. This information is included in the RTP for the purpose of:

- Landowners and land managers who want to improve conditions for at-risk wildlife;
- Agencies and organizations interested in making conservation investments more effective and efficient; and
- Oregonians who want a better understanding of the conservation issues of concern in their area.



Cover of The Oregon Conservation Strategy guide

The link below offers more information on the ODFW Conservation Strategy for Oregon:

<http://www.dfw.state.or.us/conservationstrategy/contents.asp>

### **Conservation Strategy for Oregon – Klamath Mountains Ecoregion**

The **MRMPO** is situated within the Klamath Mountains ecoregion which covers much of southwestern Oregon, including the Umpqua Mountains, Siskiyou Mountains and interior valleys and foothills between these and the Cascade Range. Several popular and scenic rivers run through the ecoregion, including: the Umpqua, Rogue, Illinois, and Applegate.

Within the ecoregion, there are wide ranges in elevation, topography, geology, and climate. The elevation ranges from about 600 to more than 7400 feet, from steep mountains and canyons to gentle foothills and flat valley bottoms. This variation along with the varied marine influence support a climate that ranges from the lush, rainy western portion of the ecoregion to the dry, warmer interior valleys and cold, snowy mountains.

The Klamath Mountains ecoregion boasts a high rate of species diversity, including many species found only locally. In fact, the Klamath-Siskiyou region was included in the World Wildlife Fund's assessment of the 200 locations most important for species diversity world-wide.

The region is particularly rich in plant species, including many pockets of endemic communities and some of the most diverse plant communities in the world. For example, there are more kinds of cone-bearing trees found in the Klamath Mountains ecoregion than anywhere else in

North America. In all, there are about 4,000 native plants in Oregon, and about half of these are found in the Klamath Mountains ecoregion.

The ecoregion is noted as an Area of Global Botanical Significance (one of only seven in North America) and world "Centre of Plant Diversity" by the World Conservation Union. The ecoregion boasts many unique invertebrates, although many of these are not as well studied as their plant counterparts.

While the Klamath Mountains ecoregion is ecologically unique, it embodies many of the conservation issues facing other parts of Oregon. For example, increasing population growth and development in rural residential and urban communities strain resources, particularly in the southern and eastern portions of the ecoregion. The Klamath Mountains is the second fastest-growing ecoregion in Oregon (the Willamette Valley is experiencing the fastest rate of expansion). Much of the population growth is concentrated in valleys along the Interstate 5 corridor. Demands for choice building sites often coincide with good quality habitat.

Land use conversion and urbanization, loss of habitat connectivity and invasive species are limiting factors identified by the Strategy for this ecoregion. Appropriate transportation planning as well as project design and implementation can be a valuable tool in addressing these factors.

Recent indicators suggest that water quality and riparian condition in the ecoregion may be improving. Much of this change could be attributed to local collaborative conservation efforts via watershed councils and other groups. For more information on the Klamath Mountains Ecoregion and possible

actions recommended to restore habitats identified in this ecoregion click on the link below:

[http://www.dfw.state.or.us/conservationstrategy/document\\_pdf/b-eco\\_km.pdf](http://www.dfw.state.or.us/conservationstrategy/document_pdf/b-eco_km.pdf)

### **Habitat Conservation Opportunities**

As defined in the Conservation Strategy, Conservation Opportunity Areas (COAs) are landscapes where broad fish and wildlife conservation goals would be best met. COAs were developed to guide voluntary, non-regulatory actions. There are no COAs located within the **MRMPO** planning area.

## **8. Barriers to Wildlife Movement**

Barriers to fish and wildlife movement are a key conservation issue for the **MRMPO**. Roads, dams and other structures act as barriers to the movement of fish and wildlife. These barriers reduce total habitat, create challenges to animal dispersal and reproduction and make wildlife more vulnerable to injury and death.

ODFW is working with the Oregon Department of Transportation, county transportation departments, and other partners to identify and reduce fish passage barriers and areas where wildlife mortality on highways occurs. ODFW's fish passage rules can be found here:

<http://www.dfw.state.or.us/fish/passage/>  
(OAR Chapter 635 Division 412).

ODFW notes that stream crossing designs must meet fish passage criteria in order to provide fish passage for Oregon's native migratory fish species. Barriers to migration are a big challenge to recovery for the fish species in the Rogue Basin. In the **MRMPO** area numerous tributaries have significant barriers near their confluence with the Rogue River. Restoration of native fish populations will lag if fish are not able to

utilize the habitat available in the watershed, including urban stream areas.

During a project near a stream, it may be possible to utilize equipment and personnel to do smaller scale restoration projects on the nearby waterbody, such as adding some minor retrofits to improve fish passage. This can be scoped with ODFW pre-project. ODOT is a cooperator on the Oregon Wildlife Movement Strategy, an interagency partnership to inventory and prioritize wildlife movement barriers on the state highway system. ODOT's Geo-Environmental Section is developing a Wildlife Collision Prevention Plan that addresses Federal Highway Administration and Oregon Department of Fish and Wildlife concerns for animal-vehicle collisions on the state highway system.

The effects of roads on wildlife can be mitigated through the design and construction of underpasses and overcrossings. For more information on wildlife and roads, click on the links below:  
<http://www.wildlifeandroads.org/decisionguide/>

[http://www.defenders.org/programs\\_and\\_policy/habitat\\_conservation/habitat\\_and\\_highways/index.php](http://www.defenders.org/programs_and_policy/habitat_conservation/habitat_and_highways/index.php)

## **9. Addressing Impaired Water Resources**

This portion of the Rogue Valley, like many regions in the United States, has experienced development and modification of the natural landscape. Subsequently, modifications of the natural landscape have led to water resource impacts. Surface waters and associated vegetation have been altered, leaving bodies of water with impairments, such as increased temperatures, decreased dissolved oxygen levels and other concerns.

As a result of combined impairments to water bodies across the nation, the Clean Water Act was established. The Act includes a system for identifying and working to repair impaired water bodies. The system for identifying impaired water bodies is known as the 303(d) list and requires states to identify impaired waters within their state. The list identifies both the body of water and what impairments it has. The states are then required to prioritize their impaired water bodies and develop action plans, known as total maximum daily loads (TMDLs), to improve water quality of the listed systems.

TMDLs for the streams within the **MRMPO** (Rogue River Basin) have been approved that meet the requirements of Section 303(d) of the Federal 1972 Clear Water Act. Map 10.3 illustrates TMDL water bodies and fish passage barriers; the Rogue River is TMDL listed for bacteria (E. coli and Temperature). Table 10.2 lists TMDL stream segments within the **MRMPO** along with their identified impairments. See Table 10.1 for a list of fish, wildlife and plant species including their status at the local, state or federal levels.

Table 10.1

Species common name	Species scientific name	Status	C H
<b>Birds</b>			
Northern Spotted Owl	Strix occidentalis caurina	T	Y
<b>Fish</b>			
Coho salmon	Oncorhynchus kisutch	T	Y
<b>Flowers</b>			
Gentner's Fritillary	Fritillaria gentneri	E	N
<b>Mammals</b>			
Gray Wolf	Canis lupus	E	N
Fisher	Martes pennanti	pT	N

Table 10.2

<i>Stream/River</i>	<i>Pollutant(s)</i>
Applegate River	pH, mercury, flow modification, dissolved oxygen, and temperature
Birdseye Creek	temperature
Cheney Creek	dissolved oxygen
Evans Creek	bacteria and biological criteria
Galls Creek	temperature
Jackson Creek (Applegate)	dissolved oxygen
Jones Creek	E. coli and dissolved oxygen
Jumpoff Joe Creek	temperature
Kane Creek	biological criteria
Quartz Creek	temperature
Rogue River	ph, dissolved oxygen, bacteria, and temperature

## 10.Stormwater Monitoring and Management

Stormwater is the flow of water created by impermeable surfaces, such as roads, highways, bridges, sidewalks and parking lots. There are additional forms of development that contribute to stormwater runoff, such as commercial and residential buildings. Ultimately, the combinations of these impervious surfaces prevent water from infiltrating and percolating through the soils and into the groundwater (groundwater recharge). Consequently, water that used to be available through groundwater, as well as seeps, which may be needed by streams and



other surface waters during the summer months may no longer be available. Therefore, a variety of interrelated impacts can occur.

A consequence of decreasing groundwater is a decrease in the amount of water available to surface waters, such as through seeps or springs. Typically during the warmer months when water levels are lower, seeps may be needed to augment stream flows in order to prevent surface waters (e.g., streams) from becoming shallow and warmer. Surface waters that do not receive appropriate inflow from seeps or springs may not properly function. Subsequently, the lower volumes of surface water lead to temperature increases which result in changes to biota.

Impervious surfaces also lead to increased flows during months with high precipitation. Precipitation runs off and flows downhill (path of least resistance), and ends up in a receiving water body. It is noteworthy that increased runoff causes increased flows (seasonal peaks) which in turn cause scour and erosion, often resulting in modifications to the shape of the stream channel. For example, months with a lot of rain create peak flows in stream systems from the increased water being conveyed to them as a result of an increase in impervious surfaces. Consequently, stream channels can scour and banks can erode resulting in the channel being altered and subsequent changes to habitats and composition of species.

As stormwater runoff flows over ground surfaces, it can pick up debris, chemicals, dirt, and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm drain is discharged untreated into the water bodies. Pollutants commonly found in stormwater

include nutrients (nitrogen and phosphorus), oil, bacteria, fertilizers, and metals (e.g., copper, lead, and zinc from automobile brake pads).

Impacts to habitats and the wildlife can result from roads and other impervious surfaces. Erosion and scour that changes a stream channel will modify flow, vegetation and temperature, and subsequently favor species adapted to the newly created conditions. In addition, pollutants draining from roads and parking lots can contribute to impaired water quality and degraded wildlife habitat. Therefore, care in the design of the transportation system is important. Stormwater discharge is regulated under the Clean Water Act, Section 402.

## **11. Historic and Archeological Considerations**

Protection of historic and archeological resources must be considered as part of the decision-making process for transportation projects.

Numerous laws and regulations call for preservation and/or enhancement of cultural resources. These include the Department of Transportation (DOT) Act of 1966, the Federal-Aid Highway Act of 1968, the National Environmental Policy Act of 1969, the National Historic Preservation Act of 1966, the Archeological Resource Protection Act of 1979 and the Surface Transportation and Uniform Relocation Assistance Act of 1987. In addition, regulations by the Council on Environmental Quality (40 CFR, Part 1500-1508) and the Advisory Council on Historic Preservation (ACHP) (36 CFR, Part 800) have been promulgated to assure that effects on historic properties are considered in the development of federal undertakings. Historic properties are any historic district, site, building, structure or object included in,



or eligible for inclusion in, the National Register of Historic Places.

Transportation officials are required to make a good faith effort to identify historic properties that may be affected by a transportation project. A discussion of the effects on historic properties must be included in the environmental documentation. This discussion is to be commensurate with the importance of the historic properties as well as the magnitude of the project's impacts on those properties.

The primary provisions related to historic preservation for transportation projects are Section 106 of the National Historic Preservation Act and Section 4(f) of the DOT Act. These provisions are applicable to actions that require federal approval or are undertaken with federal funds.

Section 106 of the National Historic Preservation Act of 1966 (NHPA) as amended through 2000 requires federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on the undertaking. The historic preservation review and consultation process mandated by Section 106 is outlined in regulations issued by ACHP. Revised regulations, "Protection of Historic Properties" (36 CFR Part 800), became effective January 10, 2001 and were further amended in August 2004.

Federal agencies are responsible for initiating Section 106 review, most of which takes place between the agency and state and tribal officials. Appointed by the governor, the State Historic Preservation Officer (SHPO) coordinates the state's historic preservation program and consults with agencies during Section 106 review.

Agencies also consult with officials of federally recognized Indian tribes when tribal lands or historic properties of significance to such tribes are involved. Some tribes have officially designated Tribal Historic Preservation Officers (THPOs), who function as a SHPO on tribal lands, while others designate representatives to consult with agencies as needed.

At this time, none of the Tribes in the Region have a THPO. The MPO will consult with the Confederated Tribes of Grande Ronde; Confederated Tribes of Siletz; and Cow Creek Band of Umpqua Indians for each Regional Transportation Plan update. The appropriate Tribe to consult will be determined based upon historic and current information provided.

According to the Advisory Council on Historic Preservation, Section 106 review and consultation requires federal agencies to do the following:

- Determine if Section 106 of the NHPA applies to a given project and, if so, initiate consultation;
- Gather information to decide which properties in the project area are listed in or eligible for the National Register Historic Places;
- Determine how historic properties might be affected;
- Explore alternatives to avoid or reduce harm to historic properties; and
- Reach agreement with the SHPO/THPO (and the ACHP in some cases) on measures to resolve any adverse effects to historic properties.

Another protection to park and wildlife areas is provided by Section 4(f) of the U.S. Department of Transportation Act of 1966. This environmental regulation applies to projects that receive Department of

Transportation (FHWA or FTA) funds. Section 4(f) (recodified in 49 USC 303, but still known as Section 4(f)) includes provisions prohibiting federal transportation agencies from using land from a significant publicly owned park, recreation area, wildlife or waterfowl refuge, or any land from an historic site of national, state, or local significance unless:

- There is no feasible and prudent alternative to the use of land, and
- The action includes all possible planning to minimize harm to the property resulting from use.

In assessing the environmental effects of an action through the National Environmental Policy Act process, FHWA includes an evaluation of the use of land protected under Section 4(f). The environmental regulations for applying Section 4(f) to transportation project development can be found at 23 CFR 771.135. For other detailed guidance on applying the requirements of Section 4(f), the FHWA wrote the Section 4(f) Policy Paper, which discusses such topics as the history of Section 4(f), alternatives analysis, mitigation, and how Section 4(f) relates to other statutes and regulations which protect the same types of resources, including Section 106 of the National Historic Preservation Act.

In order for FHWA field offices to make key determinations on projects having minor impacts or a net benefit on areas protected by Section 4(f), the agency issued several Nationwide Section 4(f) Programmatic Statements. Section 4(f) is considered by the preservation community to be one of the most effective tools in the protection of historic properties. But its stringent standards and interpretations by various court rulings have had the transportation

community seeking revisions to provide more flexibility in implementing the law.

## 12.11 RTP Projects and Environmental Features

Table 10.4 below lists 2016-2040 projects that intersect with a resource identified in this chapter. The projects are identified with RTP project number, location, and timing (reflected in the color of the text), and the corresponding environmental resource or feature.

The environmental and historic resources and concerns addressed in the chapter and listed in the tables below are: National Historic Districts, wetlands listed in Local Wetlands Inventories and/or National Wetlands Inventory; 100-year floodplain; and fish habitat (Coho, and Steelhead habitat). Projects are mapped with environmental features beginning on Page 15.

Table 10.4.

<b>RTP Project Number</b>	<b>Project Location</b>	<b>Wetlands</b>	<b>100-Year Floodplain</b>	<b>Wildlife Movement</b>	<b>National Historic District</b>	<b>Steelhead</b>	<b>Coho Salmon (Threatened)</b>
201	Allen Cr Rd-W Harbeck to Denton Rd	X					
202	G Street-Lincoln Rd to Leonard St	X			X		
203	Fruitdale Dr-Parkdale to Overland	X	X			X	X
204	G St-Leonard to 3rd St	X	X		X	X	
205	Fruitdale Dr-Overland to RR Hwy 99	X	X			X	X
206	Vine St-Highland to Hawthorne Ave	X					
209	Leonard Rd- Willow Ln to school	X					
212	Foothill: City Limits-Ament Rd	X				X	X
213	Hillcrest: 9th to 10th Street	X					
216	Cloverlawn Dr:Eastview-Hamilton Ln	X				X	
217	Highland Av:S line sect 6 to NW UGB	X					
218	Leonard Rd:Dowell to Willow Ln	X					
220	E Park St:Clara to Hamilton		X				
222	Hamilton Ln:Park St-RR Hwy		X				
223	W Park St:Ringuette to Pansy Ln	X	X			X	
227	Hamilton Ln:Overland Dr-Cloverlawn	X	X			X	X
228	E Park St: Gold River Ln-Clara Av		X				
230	Portola Dr: 450ft west of Gladiola		X				
231	Portola Dr: Gladiola to Shannon Ln		X				
232	Shannon Ln: Portola-N RR ROW	X	X				
402	Monument Dr: Merlin Rd-Timber Ln	X	X			X	X
500	US199-Bridge, 6th St (Cavemen)	X				X	X
501	I-5: N Grants Pass-Evans Creek	X	X	X		X	X
601	E. Main Street Bridge	X	X			X	
602	Main Street			X			

Green

Short range projects.

Blue

Medium range projects.

Red

Long term projects.

# Chapter 9 – Air Quality

## Introduction

To receive transportation funding or approvals from the Federal Highway Administration and the Federal Transit Administration, state and local transportation agencies with plans, programs or projects in nonattainment or maintenance areas, must demonstrate that they meet the transportation conformity requirements of the federal Clean Air Act, as implemented in specific federal and state transportation conformity rules.

To meet the requirements, Metropolitan Planning Organizations (MPOs) must show that the anticipated emissions resulting from implementation of transportation plans, programs and projects are consistent with and conform to the purpose of the State Implementation Plan (SIP) for air quality. A SIP is a plan mandated by the Clean Air Act and developed by the state that contains procedures to monitor, control, maintain and enforce compliance with the National Ambient Air Quality Standards (NAAQS). SIPs are required to be developed once a region has violated the standards.

Within the MRMPO area, demonstration of conformity to two SIPs is required: a carbon monoxide (CO) limited maintenance plan, or SIP, within the Grants Pass Central Business District (CBD), and a particulate (PM<sub>10</sub>) limited maintenance plan within the Grants Pass Urban Growth Boundary (UGB).

### 1. Carbon Monoxide Status

Oregon Department of Environmental Quality (ODEQ) developed a Carbon Monoxide Limited Maintenance Plan (LMP) for the Grants Pass area, which was submitted to EPA on April 22, 2015 and went into effect on September 28, 2015. To be eligible for CO LMP, an area has to have a design value at or below 7.65 ppm. Based on ODEQ's review of the 2002 – 2005 CO emissions data for Grants Pass the area meets the requirements for an LMP.

As an area with a limited maintenance plan, the MRMPO is no longer required to perform emissions analysis for CO but still must demonstrate conformity as discussed below.

### 2. PM<sub>10</sub> Status

Grants Pass has been below the NAAQS for PM<sub>10</sub> since 1988. Oregon Department of Environmental Quality (ODEQ) developed a PM<sub>10</sub> Limited Maintenance Plan (LMP) for the Grants Pass area, which was submitted to EPA on April 22, 2015 and went into effect on September 28, 2015.

As an area with a limited maintenance plan, the MRMPO is no longer required perform emissions analysis for PM<sub>10</sub> but still must demonstrate conformity as discussed below.

According to federal rules, while areas with approved limited maintenance plans are not required to perform a regional emission analysis, they are required to demonstrate conformity of the transportation plans as stated in 40 CFR Part 93, Subpart A.

### 3. Conformity Findings

The air quality conformity determination (AQCD) for this plan shows that with the implementation of the MRMPO 2015-2040 Regional Transportation Plan and 2015-2018 Metropolitan Transportation Improvement Program current federal air quality standards for regional transportation conformity will continue to be met in the Grant Pass CO and PM<sub>10</sub> Limited Maintenance Areas.

### 4. How the MRMPO Demonstrates Conformity

An AQCD is required whenever the Regional Transportation Plan (RTP) or Metropolitan Transportation Improvement Program (MTIP) is updated, or every four years, whichever comes first. USDOT must make the conformity determination before the plan and program can go into effect.

In the MRMPO area, the conformity document must show that through the horizon of the plan and program transportation conformity requirements will be met. These requirements (CFR 40 Part 93 Subpart A) and how the MRMPO is meeting regulations in regards to the adoption of the 2040 RTP are presented below.

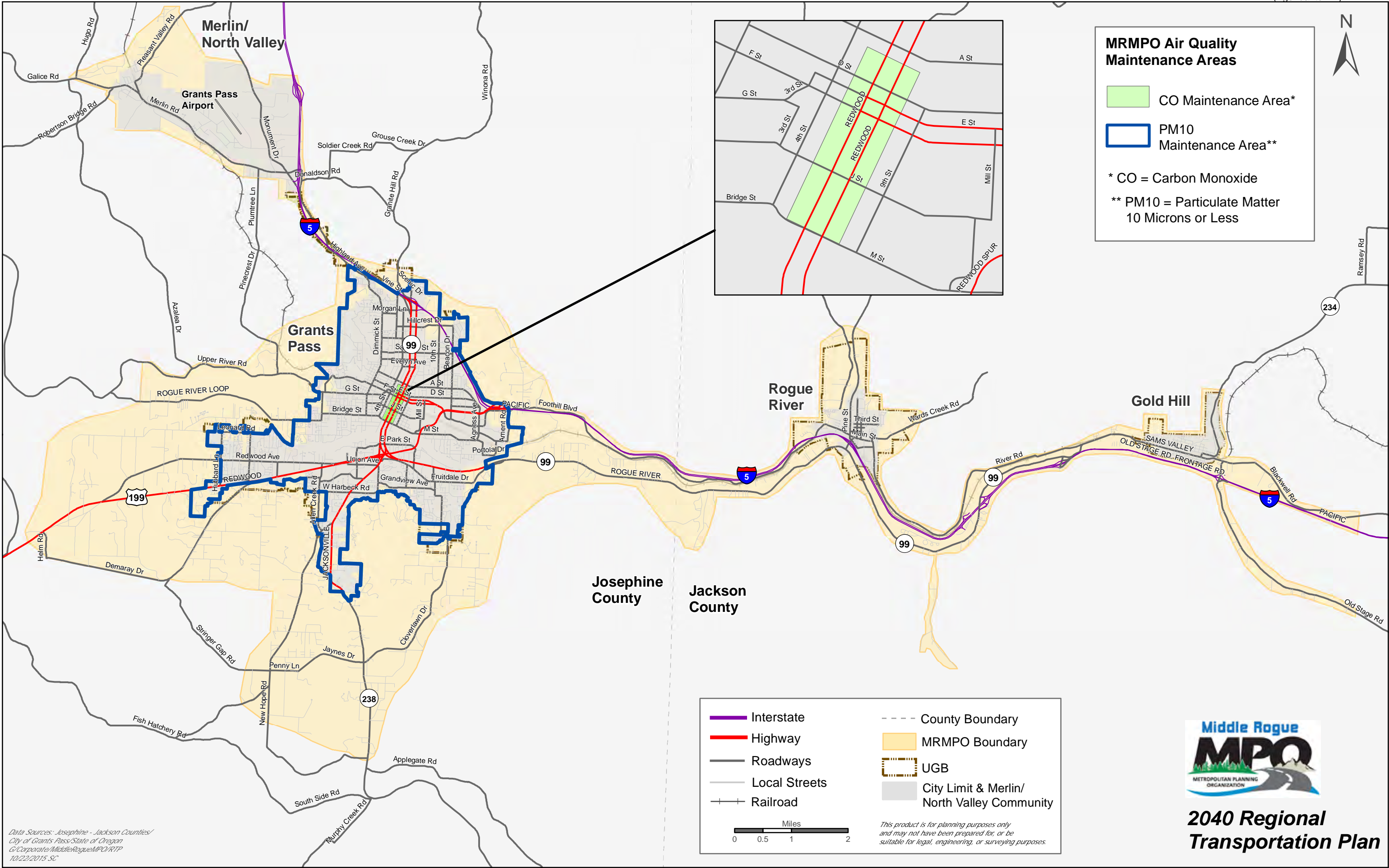
- a. Transportation plans and projects provide for timely implementation of SIP transportation control measures (TCMs) in accordance with 40 CFR 93.113;
  1. The equivalent State Rule is OAR 340-252-0140.
  2. There are no TCMs identified in the SIPs for the Grants Pass PM<sub>10</sub> and CO Maintenance areas.
- b. Transportation plans and projects comply with the fiscal constraint element per 40 CFR 93.108;
  1. The equivalent State Rule is OAR 340-252-0090.
  2. As required by federal regulations, the adopted MRMPO 2040 RTP is financially constrained, containing only those projects that funds are identified for or 'reasonably expected' to be available over the time frame of the plans.
  3. The financial constraint assumptions developed for the MRMPO 2040 RTP are shown in Chapter 8 of the RTP.
- c. The MPO's interagency consultation procedures meet applicable requirements of 40 CFR 93.105;
  1. The equivalent State Rule is OAR 340-252-0060.
  2. A draft of the AQCD document was circulated to ODOT, EPA, Oregon DEQ, FHWA, and FTA prior to adoption.
- d. Conformity of transportation plans is determined no less frequently than every four years, and conformity of plan amendments and transportation projects is demonstrated in accordance with the timing requirements specified in 40 CFR 93.104;

1. The equivalent State Rule is OAR 340-252-0050 which currently specifies conformity to be determined every four years.
- e. The latest planning assumptions and emissions model are used as set forth in 40 CFR 93.110 and 40 CFR 93.111;
1. The equivalent State Rule is OAR 340-252-0110 for the latest planning assumptions.
  2. Estimates of population and employment for the area have been made, which are based on the adopted comprehensive plans and TSPs for the MRMPO area. Assumptions regarding the financial situation the MRMPO area is anticipated to face over the next 24 years have been updated, in conjunction with ODOT, Josephine Community Transit, and the local jurisdictions.
  3. Equivalent State Rule is OAR 340-252-0120 regarding the latest emissions model.
  4. The Grants Pass area is designated as attainment for PM<sub>10</sub> and carbon monoxide. Limited maintenance plans for carbon monoxide and PM<sub>10</sub> for the area went into effect on September 28, 2015. As such, no regional emissions modeling is required for the conformity determination.
- f. Projects do not cause or contribute to any new localized carbon monoxide or particulate matter violations, in accordance with procedures specified in 40 CFR 93.123; and
1. Projects included in the MRMPO 2040 RTP that are required to perform hot spot analysis will have this conducted by the project sponsors during the appropriate phase of the project.
- g. Project sponsors and/or operators provide written commitments as specified in 40 CFR 93.125.
1. Project sponsors and operators will conform to the CAA requirements.

Response to the applicable conformity criteria and procedures as they apply to the MRMPO 2040 RTP, as per State of Oregon conformity rules (OAR 340-252-0010 et seq.), is made in the following text. This checklist is provided to assist in the state and federal review of this conformity determination and the consultation requirements of OAR 340-252-0060.

## **5. Actions to be taken**

The MRMPO Policy Committee, as the policy board for the federally designated Metropolitan Planning Organization, must formally adopt the findings described in the AQCD. Then, USDOT and the federal Environmental Protection Agency confer on the analysis. Ultimately, USDOT will make a conformity determination based on the AQCD. At that time, the MRMPO's 2015-2040 plan will go into effect, as well as the 2015-2018 MTIP.





# Chapter 12 – Safety & Security

## A. Multi-Modal Safety

Public safety is by far the most important element considered in every transportation project. Its significance begins with federal goals and policies, continues with state transportation goals and on to the regional and local planning level. Safety is one of the planning factors in MAP-21 that must guide state and regional transportation planning.

The federal planning factors can be found in Vision and Goals, Chapter 2. According to the Bureau of Transportation Statistics' (BTS) Safety data Action Plan:

“Deaths and injuries are a major cost in transportation. Transportation fatalities rank third as the cause of lost years of life in the U.S. (behind heart disease and cancer). Several travel modes have death counts whose impact exceeds that of AIDS. But the Department of Transportation has not yet responded to this public health threat by developing data programs as capable as those used in the federal medical community.”

The ideal situation is that all elements of the multi-modal transportation system are safe. However, that is not always the case and plans must be made for elimination of physical transportation infrastructure hazards and problems to create a safer travel environment.

Safety often is discussed along with security, but the two are different and must be addressed separately because they involve different issues and circumstances.

The simplest distinction between safety and security is that safety problems, crashes, are unpremeditated unfortunate events. As such, they may be caused by driver error or impairment, adverse weather, a temporary hazard in the right-of-way, poor infrastructure, poor vehicle design, inadequate vehicle maintenance, or all of the above. By contrast, security events always connote a negative intention (See Security Section).

### 1. Approach to Safety

There are two components to efforts toward improving transportation safety: public education, and facility improvement. Federal, state and local agencies engage in efforts addressing both. In the area of education, programs go beyond safe-driver programs to provide information to pedestrians, children traveling to school and workers in traffic zones. Crash data show driver error and the failure of bicyclist and pedestrians to obey the rules of the road are factors in most crashes, so traffic safety education can play a significant role in crash reduction. In addition, children, who are among the most vulnerable pedestrians, can be better protected through increasing their awareness of traffic hazards and safety rules.

Education includes law enforcement. ODOT research indicates a direct relationship between traffic law enforcement and crash rates. Due to funding shortfalls [the Josephine County Sheriff's Department does not respond to crashes within the County's jurisdiction. This may result in an under-reporting of crashes.](#) In addition, ~~however~~, the number of state police on the road has fluctuated but generally has remained below national average rates. Crash records show



that two common infractions have a significant impact on traffic crash rates and severity: red-light running and speeding.

These can be reduced through the consistent enforcement of safety-related traffic laws. While the behavior of system users is critical, the facilities themselves need to be designed, built, maintained and operated in ways that make them safe. In the design and construction area, this means following standards for everything from lane widths and driveway spacing to sign placement and crosswalk location. Operations and maintenance programs look at where crashes occur and why, to determine whether any change on the ground could make accidents less likely. Visibility, for example, is important especially at intersections, to allow motorists a clear view of signs, cyclists, pedestrians, and other cars.

Landscaping, which is used to improve appearances and conditions for neighbors and pedestrians, cannot be allowed to obstruct a clear line of sight when needed for traffic safety purposes.

## 2. Safety

During the five-year period from 2009 through 2013, 3,796 crashes were reported in the Grants Pass Urbanized Area, according to the ODOT Crash Analysis & Reporting Unit. The majority of these crashes occurred on arterial streets, with approximately 12% occurring on urban minor arterials and 45% occurring on urban principal arterials. Approximately 13% of crashes during this period occurred on urban collectors, 6% on urban local roads, and less than 16% occurred on rural roads. The majority of these crashes (74%) occurred in Grants Pass, while 2% occurred in Rogue River and less than 1% occurred in Gold Hill. Of these reported crashes, 45% sustained property damage only, 52% involved injuries and 1% of the crashes involved fatalities.

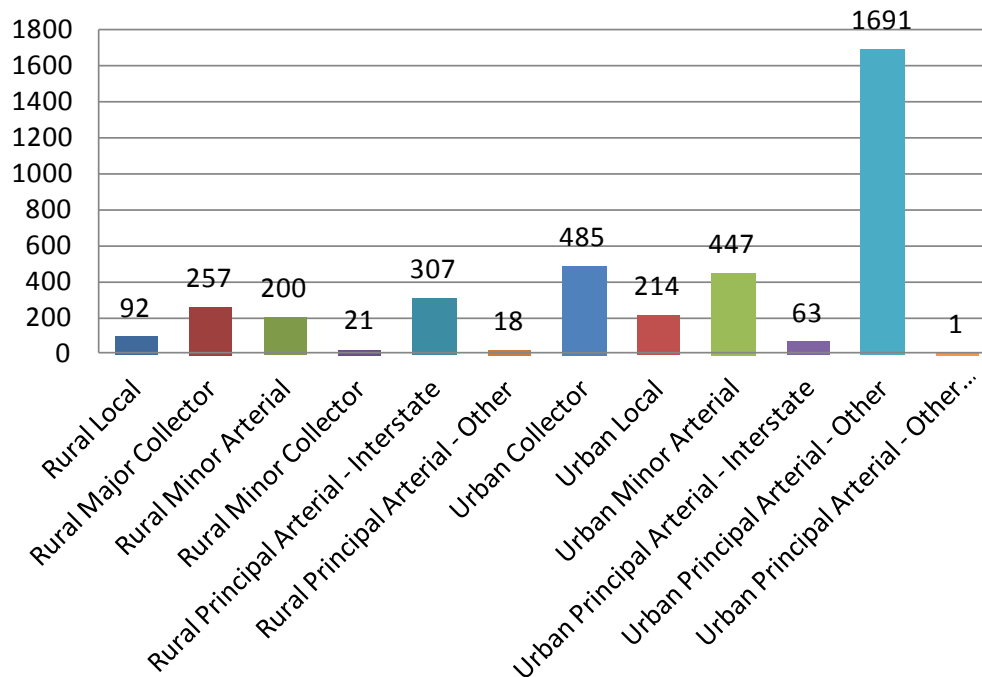
### Crash Data – Functional Class

From 2009 through 2013, 795 crashes were reported along rural roadways (including the rural portions of Interstate 5) within the MRMPO Planning Area. Crashes on urban roads totaled 3,001, or 80% of the total crashes from 2009 to 2013. Within the Planning Area there were 1,957 injury crashes and 1,803 property damage only crashes. There were a total of 36 crashes involving a fatality from 2009 through 2013.

**Table 12.1**

Crashes - MRMPO Planning Area by Functional Classs 2009 to 2013							
Years	2009	2010	2011	2012	2013	Totals	% of Total
Rural Local	20	13	29	15	15	92	2%
Rural Major Collector	37	59	63	53	45	257	7%
Rural Minor Arterial	34	31	37	44	54	200	5%
Rural Minor Collector	5	2	3	4	7	21	1%
Rural Principal Arterial - Interstate	51	53	62	65	76	307	8%
Rural Principal Arterial - Other	5	2	4	3	4	18	0.5%
Urban Collector	83	85	116	125	76	485	13%
Urban Local	34	33	54	46	47	214	6%
Urban Minor Arterial	67	68	105	102	105	447	12%
Urban Principal Arterial - Interstate	14	13	15	9	12	63	2%
Urban Principal Arterial - Other	307	305	376	350	353	1691	45%
Urban Principal Arterial - Other Freeways and Exp	1	0	0	0	0	1	0.03%
<b>Totals</b>	<b>658</b>	<b>664</b>	<b>864</b>	<b>816</b>	<b>794</b>	<b>3796</b>	<b>100%</b>

## MRMPO Crashes by Roadway Type 2009 to 2013



**Figure 12.1**

### Crashes by Jurisdiction

From 2009 to 2013, there were 2,798 crashes in Grants Pass, 88 crashes in Rogue River, 19 crashes in Gold Hill and 891 crashes in the rural areas of the MRMPO.

**Table 12.2**

Crashes by Jurisdiction 2009 to 2013							
Years	2009	2010	2011	2012	2013	Totals	% of Total
Grants Pass	507	480	634	602	575	2798	74%
Rogue River	11	18	21	18	20	88	2%
Gold Hill	3	3	2	6	5	19	1%
Rural Areas	137	163	207	190	194	891	23%
Totals	658	664	864	816	794	3796	100%

### Crashes Types

The number of traffic incidents within the Planning Area ranged from 658 to 864 crashes per year, with a low of 658 crashes in 2009 and a high of 864 crashes in 2011. The most common

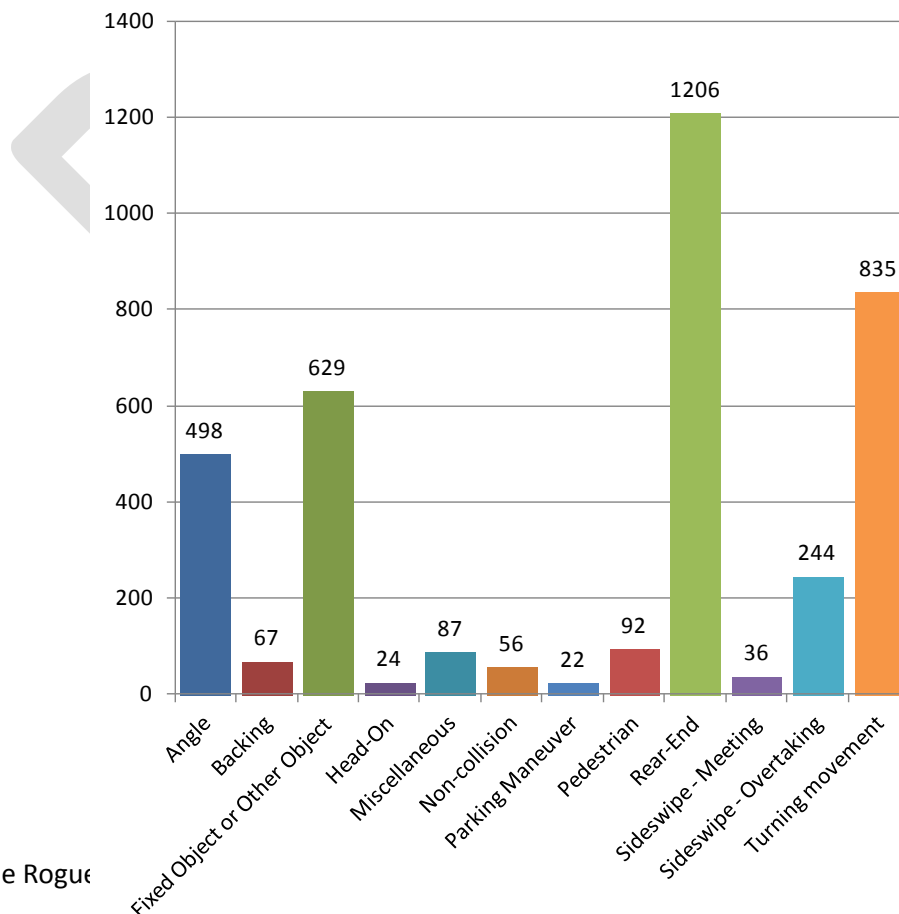
type of crash was rear-end, which comprised 32% (1,206 crashes) of all crashes over the 5-year period. Turning crashes made up 22% (835 crashes) of the crash total.

**Table 12.3**

<b>Crash Types 2009 to 2013</b>							
<b>Years</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>Totals</b>	<b>% of Total</b>
Angle	85	72	103	122	116	498	13%
Backing	11	12	18	11	15	67	2%
Fixed Object or Other Object	115	100	141	128	145	629	17%
Head-On	5	1	6	6	6	24	1%
Miscellaneous	14	17	22	15	19	87	2%
Non-collision	12	8	15	8	13	56	1%
Parking Maneuver	2	4	4	8	4	22	1%
Pedestrian	19	17	18	22	16	92	2%
Rear-End	190	234	291	238	253	1206	32%
Sideswipe - Meeting	9	3	9	6	9	36	1%
Sideswipe - Overtaking	44	42	55	50	53	244	6%
Turning movement	152	154	182	202	145	835	22%
<b>Totals</b>	<b>658</b>	<b>664</b>	<b>864</b>	<b>816</b>	<b>794</b>	<b>3796</b>	<b>100%</b>

**Figure 12.2**

### MRMPO Crash Types 2009 to 2013



### Crashes Data – City & Counties

During the 2009 - 2013 period, the majority of the crashes occurred within the City of Grants Pass (74%); 23% occurred in unincorporated areas of Josephine and Jackson Counties within the Planning Area, 1% in Gold Hill and 2% occurred within Rogue River.

Of crashes occurring within the urbanized area, 47% were property damage only and 52% incurred injury. There were thirty six fatal accidents. The majority of crashes within urbanized areas were the result of rear-end collisions (32%) or turning movements (22%).

**Table 12.4**

<b>Crash Severity 2009 to 2013</b>							
<b>Years</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>Totals</b>	<b>% of Total</b>
Fatalities	11	8	7	6	4	36	1%
Non-Fatal Injury	347	325	453	421	411	1957	52%
Property Damage Only	300	331	404	389	379	1803	47%
<b>Totals</b>	<b>658</b>	<b>664</b>	<b>864</b>	<b>816</b>	<b>794</b>	<b>3796</b>	<b>100%</b>

Crashes occurring for the years 2012 and 2013 are shown on Map 13-1.

### Safety Priority Index System

ODOT has developed a safety priority index system (SPIS) to identify hazardous locations along state highways. This rating system considers not only the number of crashes at a particular intersection, but the rate of crashes based on the overall volume of traffic going through that intersection. Crash rates help paint a more complete picture of the safety conditions of a segment than the number of crashes. Rates account for the traffic volumes traveling along a specific segment of roadway, whereas crash numbers do not account for traffic levels.

The ODOT SPIS is considered when making decisions regarding expenditure of state funds for highway improvements. The highway locations with SPIS scores that are in the highest 10 percent of all SPIS scores are evaluated for potential safety improvements. The following locations in the Planning Area were among the top 10% of SPIS groups in the 2014 SPIS report, covering years 2011 - 2013:

**Table 12.5**

<b>Intersection</b>	<b>SPIS Score</b>	<b>Percent</b>
SE M St & SE 8 <sup>th</sup> St	75.82	95
SE M St & Redwood Hwy	70.53	95
NW D St & NW 5 <sup>th</sup> St	65.79	95
NW D St & NW 4 <sup>th</sup> St	55.91	90
Hubbard Lane & SW Ravenwood	47.52	90
SE M St & 9 <sup>th</sup> St	47.32	90
Hubbard Lane & SW Clementine	46.31	90

### 3. RTP Safety Projects

Virtually all the road projects listed in the RTP have a safety element. One of the most common types of improvement, urban upgrade, makes roads safer for motorists as well as bicyclists and pedestrians by adding sidewalks and bicycle lanes that are separate from motor traffic. For motor vehicle drivers also benefit from having marked lanes for non-motorized modes, marked crosswalks and signals. Options for the MRMPO planning include:

- Using published sources, continue to develop tables, charts and maps of transportation crashes and incident data by mode.
- As resources and source agency databases allow, create Geographic Information Systems (GIS) –related database files and maps of accident and incident data by mode.
- Coordinate with appropriate lead agencies, with the primary focus being on highway and pedestrian safety improvements accidents since those constitute the highest number of accidents, but also focusing on transit safety needs.
- Continue Intelligent Transportation Systems planning and project programming, particularly with a view to investments that will enhance safety.
- Continue reviewing with MRMPO committees and the public project evaluation matrix and other specific funding program scoring matrices to ensure that safety projects receive appropriate weighting and priority in plans and programs.
- Help jurisdictions identify additional transportation funding sources that are specifically targeted at safety projects to supplement the limited funds from conventional transportation sources.

### B. Multi-Modal Security

The federal government in 1998, called for states and MPOs to address transportation security issues. In 2005, a new transportation act strengthened the requirement, which has been extended to the current MAP-21. The transportation acts require long-range regional transportation plans to consider security distinct from transportation safety. Furthermore, in 2002 Transportation Security Administration (TSA) was created with extensive requirements for operational and capital improvements relating to security. While the public's eye has been on passenger aviation, TSA's mission relates to all modes.

The federal government anticipates that over the next several years, security considerations will result in changes in how transportation is planned, designed, implemented and operated.

Transportation goals, planning processes, databases, analytical tools, decision-making considerations, and organizational structures will change due to security concerns.

Transportation will be on the front line in responding to security risks. The response to security concerns will be cross-jurisdictional and functional lines and be among the most complex and important challenges to transportation professionals. While it may be too early to begin changing our long-range infrastructure network plans in response to security risks, there will be changes in spending priorities in the near term and most probably over a longer period of time.”

There is a wide range of such incidents that could cause varying levels of disruption to the transportation system. One report recommending a national research and development strategy for improving surface transportation security presented a wide ranging list of possible threat scenarios. The list originated in a U.S. Department of Transportation vulnerability assessment of the U.S. transportation system. The nature of the threats was characterized primarily as being a physical, biological, chemical or cyber attack. The types of responses would clearly be different depending on the nature of the attack.

The magnitude and scope of an incident will clearly be an important determinant for gauging the appropriate public safety/emergency response. And most studies of sudden disruptions to the transportation network, either from natural or man-made causes, have concluded that the redundancies in a metropolitan area’s transportation system provides a rerouting capability that allows the flow of people and vehicles around disrupted network links. For instance, in the MRMPO area, parallel routes [\(list\)](#) offer that redundancy.

## 1. Definitions

The simplest distinction between safety and security is that safety problems- accidents – are just that—unpremeditated unfortunate events. As such, they may be caused by driver error or impairment, adverse weather, a temporary hazard in the right-of-way, poor infrastructure or vehicle design, or all of the above.

By contrast, security events always connote a negative intention, whether the perpetrator is a disgruntled single individual, a member of a gang, or a member of a political organization, that is, a terrorist. In number, terrorist attacks on transportation systems are few, with the vast majority of security breaches being perpetrated by non-political actors. But terrorist events, when they do occur, can be much more dramatic, harm many more people, and require much more to address.

Table [132.6](#) below provides a description of various types of security problems that can arise in any transportation system.

**Table 12.6**

<b>Event</b>	<b>Description</b>
<u>Aggravated Assault</u>	An unlawful attack by 1 person upon another for the purpose of inflicting severe or aggravated bodily injury. This type of assault usually is accompanied by the use of a weapon or by means likely to produce death or great bodily harm.
<u>Arson</u>	To unlawfully and intentionally damage, or attempt to damage, any real or personal property by fire or incendiary device.
<u>Burglary</u>	The unlawful entry of a structure to commit a felony or a theft. This includes offenses known locally as burglary (any degree), unlawful entry with intent to commit a larceny or felony, breaking and entering with intent to commit a larceny, housebreaking, safe cracking and all attempts at these offenses.
<u>Larceny/Theft</u>	The unlawful taking, carrying, leading or riding away of property from the possession or constructive possession of another. This includes pocket picking, purse snatching, shoplifting, thefts from motor vehicles, thefts of motor vehicle parts and accessories, theft of bicycles, theft from buildings, theft from coin operated devices or machines, and all other theft not specifically classified.
<u>Trespass</u>	To unlawfully enter land, a dwelling or other real property.
<u>Vandalism</u>	The willful or malicious destruction, injury, disfigurement or defacement of any public or private property, real or personal, without consent of the owner or person having custody or control by cutting, tearing, breaking, marking, painting, drawing, covering with filth, or any other such means as may be specified by local law.
<u>Terrorism</u>	The willful or malicious destruction, injury, disfigurement or defacement of any public or private property [etc. as above] by domestic or foreign nationals for the purpose of making a political impact.

## 2. An Approach to Security

FHWA guidance offers one approach to handling potential security or disaster incidents. The plan offers six options for action.

**Prevention:** This has several components, ranging from the actual stopping of an attack before it occurs, to providing improved facility designs that prevent large scale destruction. Surveillance, monitoring, and sensing technologies will likely play an important role in the prevention phase of an incident.

**Response:** A range of responses is offered.

*Mitigation:* Reducing the harmful impact of an attack as it occurs and immediately after. This entails identifying the most effective routing for emergency vehicles, evacuations and effective communication systems among emergency response teams and for general public information.

*Monitoring:* Recognizing that an incident is underway, characterizing it, and monitoring developments. Clearly, surveillance, monitoring, and sensing technologies would be critical to this phase of incident response, as would public information.

*Recovery:* Facilitating rapid reconstruction of services after an incident. Depending on the degree of damage to the community and/or transportation system, regaining some level of normalcy will require bringing the transportation system back to adequate levels of operation.

*Investigation:* Determining what happened in an attack, how it happened, and who was responsible. This is primarily a security/police activity that reconstructs the incident and determines causality and responsibility.

*Institutional Learning:* Conducting a self-assessment of organizational actions before, during, and after an incident. This element provides a feedback to the prevention element in that by understanding what went wrong or right in response to an incident, steps can be taken to prevent possible new threats.

### 3. MRMPO Area Security Planning

Within the planning area, some specific strategies have been developed. They are discussed below in the context of national security planning initiatives.

**Intelligent Transportation System (ITS) Program** – In the past decade or so, a new federal transportation program focusing on information technology to address problems has been developed. This Intelligent Transportation Systems program can make a major contribution toward transportation security. It can assist in all four phases of security: planning, preparedness, response and recovery. However, planners must consider that because of ITS installations' dependence on computers and electrical power, they are also more vulnerable to security threats than are many other transportation elements.

**Freight** – Special security planning efforts focus on freight movements. The Federal Motor Carrier Safety Administration reviews security measures with motor carriers and shippers that may be the target of terrorist attack. Its mission is to increase the level of awareness of hazardous materials carriers to terrorist threats. The FMCSA field staff provide information in the form of recommendations and suggestions.

**Transit** – By law, 1 percent of urbanized funds / formula funds for transit are to be used for safety and security. More funding has been assigned over the past decade. The focus has been on intercity bus systems.



Activities have focused on protecting the driver; monitoring and communicating with over-the-road buses; implementing and operating passenger and baggage screening programs; assessing critical security needs and vulnerabilities; and training transportation personnel to recognize and respond to criminal attacks and terrorist threats, as well as in evacuation procedures.

Because the security threat to bus operations is not limited to intercity services, all public transportation companies are required to have security plans. Josephine Community Transit with assistance from MRMPO, will prepare a security plan for its facilities and activities.

Another aspect of providing for secure transportation has to do with the subject of “emergency planning.” While transportation security is directly related to preventing attacks that are intended to harm people and damage facilities, harm modes of travel, and harm important transportation infrastructure, emergency planning is intended to respond to unforeseen natural events and disasters. A security incident is one that directly pertains to acts of terror resulting in regional, local, or specific location attacks on people, sites, facilities, or transportation infrastructure; whereas emergency response planning efforts address preparedness and response and recovery to natural disasters such as earthquakes, floods, hurricanes, violent weather, fires, and similar incidents. There are several agencies that coordinate on security and safety matters for the purpose of homeland security. The term “homeland security” refers to domestic governmental actions designed to prevent, detect, respond to, and recover from acts of terrorism, and also respond to natural disasters. Homeland security represents a concerted, national effort to protect the homeland by all levels of government at the Federal, State, and local levels, for the sole purpose of protecting the United States from internal and external hazards.

#### **4. MRMPO Planning**

Security planning efforts in the planning area are directed and managed by the emergency responders – police, fire, medical – representing all of the MRMPO jurisdictions.

The MRMPO will coordinate with the agencies on producing and maintaining emergency response plans. In areas involving transportation, public works staffs collaborate and assist the responders in both planning and incident response.

The RTP’s principal role is in identifying projects that assist responder efforts, most specifically in the area of Intelligent Transportation System (ITS) planning. The MRMPO will be developing an ITS plan in consultation with emergency responder representatives. As such, the MRMPO will provide a forum for agencies and the public to examine issues and identify needs and solutions.

Future contributions of the MRMPO are likely to focus in two areas: prevention and mitigation. Prevention planning can include: funding new strategies/technologies/projects that can help prevent events; providing a forum for security/safety agencies to coordinate surveillance and prevention strategies; finding funds for security-enhancing systems; continuing to coordinate with security officials in development of prevention strategies.

Other activities for the MRMPO could include:

- Using published sources, create annual tables of transportation security incident data by mode.
- Analyze the available databases for policy and program directions and review conclusions with appropriate lead agencies.
- Regularly review with the Technical Advisory Committee the MTIP scoring matrix and other specific funding program scoring matrices to ensure that security projects receive appropriate weighting and priority in the MTIP.
- Regularly review the Tier 1 and Tier 2 project development process for the Regional Transportation Plan (RTP) to ensure that security receives adequate priority in the development of the long range project list.

## F. Transportation Options

### 1. Introduction

The ~~MRMPO is starting a region's~~ Transportation Options (TO) program ~~with assistance from is an activity of~~ the Rogue Valley Transportation District (RVTB). The goal is to reduce Single-Occupant-Vehicle (SOV) trips and vehicle miles traveled (VMT) by encouraging use of other modes. It seeks to achieve these changes through better non-SOV facilities and education to make the use of these modes more attractive than driving alone. TO therefore includes ride-sharing, trip reduction and also transit, cycling and walking. TO is important because of the lack of adequate funds and space to maintain and expand road infrastructure nationwide. The traffic capacity of existing roads is quickly filling up; the auto encourages sprawl that requires extra facilities and more VMT per household; the auto is the largest producer of harmful emissions; and the largest consumer of petroleum-based fuels. TO can benefit society at a very reasonable cost compared to the cost of continuing on an SOV-focused system.

State Requirements for TO measures are based in the Oregon Highway Plan's Goal 4: "To optimize the overall efficiency and utility of the state highway system through the use of alternative modes and travel demand strategies."

Urban areas with populations over 25,000 are required by the Oregon Transportation Planning Rule (TPR) to address Transportation Options in their Transportation System Plans (TSPs). For these reasons, TO strategies are integral to the transportation planning being pursued in the Middle Rogue's Regional Transportation Plan (RTP). It is among the policy strategies in RTP Goal 3, which calls for using a variety of strategies to reduce reliance on single-occupant vehicles.

### 2. TO's Purpose

The purpose of TO is to reduce the number of single-occupant vehicles using the road system while offering travel options. TO employs a variety of improvements – both structural changes such as parking areas for carpoolers, and bike lanes, as well as policy initiatives such as staggered work schedules – to increase the capacity of the transportation system without the expense and inconvenience of major highway expansion. If implemented on an area-wide basis and actively supported by agencies, businesses, and residents, TO strategies may be able to reduce or delay the need for street improvements, save travelers some money, reduce energy consumption and improve air quality.

These benefits become increasingly important as the region continues to develop, and both the land and the funding for roadway construction grow scarcer. The Federal Highway Administration (FHWA) predicts that strategies to manage demand will be more critical to transportation operations than strategies to increase capacity (supply) of facilities. The inability to easily and quickly add new infrastructure, coupled with the growth in passenger and freight travel, are forcing metropolitan areas to pay more attention to managing demands.

### 3. How TO Works

The current transportation system in much of the US is built around the automobile with wide streets, high speeds, sprawling development, and a lack of pedestrian, bicycling and transit-supporting infrastructure. TO seeks to revitalize urban centers and assist rural areas to become friendlier to the pedestrian and bicyclist, making the auto less attractive. TO often relies on both incentives, such as bus pass programs, and disincentives such as SOV parking surcharges. Efforts have been made to

encourage major trip generators such as universities and major employers to take the initiative in developing TO programs. Experience elsewhere, however, indicates that employers need encouragement and incentives to adopt TO measures affecting the work commute – a major target of TO programs.

Stakeholders in the transportation system may not see the true costs of an auto based society and observe many actions resulting in the majority of transportation funding being dedicated toward expanding and improving the road system.

The affected public needs to continue efforts to mobilize their public officials to provide adequate transportation facilities and services for pedestrians, cyclists and transit service. Stakeholders also need to become part of a critical mass to show that non-SOV modes have interest, feasibility and merit.

TO strategies are aimed at minimizing travel or encouraging travel by a mode other than a single-occupant automobile. A community or an employer could take a number of approaches to accomplish this. First, a community could attempt to decrease peak demand, either by shifting person-trips from the peak hour of demand, or by eliminating person-trips. (Person-trips represent the number of trips made by an individual, while vehicle trips account for multiple person trips depending upon the number of people traveling in the vehicle.) Second, for the person-trips that are necessary during the peak hours of demand, a community may encourage alternatives to single-occupant vehicles (SOVs).

There is a difference between TO outreach strategies for the employers and for the public. Employers can undertake a variety of marketing or promotional activities to support their employees not using a SOV, such as flyers, trip-reduction programs, incentives, and using the other modes themselves as a role model.

By contrast, not being organized around a workplace, the general population needs to be attracted into non-SOV travel with public outreach through special events such as Car Free Day. They can also take advantage of transportation-efficient mortgages, the real estate profit of having greenways nearby, and feeling secure about their kids walking to school on a sidewalk. Reaching this population relies on general marketing such as brochures, commercials, etc. and being available to be a personal consultant if needed.

Bicycling and walking are most applicable for short trips, while ridesharing and transit may be preferable for intermediate and long trips. Telework may be used as a trip alternative regardless of the distance. Finally, a community may reduce the demand on its surface transportation system by decreasing the distances traveled by vehicle trips. Some methods for reducing trip lengths include transit-oriented designs and compact, mixed-use developments. There is an important inter-relationship between the transportation options and land use.

The following are examples of policies and programs that can support TO.

### **Alternative Work Arrangements**

Local governments and major employers (greater than 50 employees) encourage work arrangements providing an alternative to the 8-to-5 work schedule. These arrangements may include employee flextime programs, staggered work hours and compressed work weeks.

### **Employee Flex-Time Programs**

One opportunity employers have to affect total trip demand is through influencing their own employees' peak versus off-peak travel behavior. A flexible schedule may allow employees to match their work

hours with transit schedules, make carpool arrangements, or merely avoid peak congestion times. Active promotion of alternative schedules might slightly decrease total peak hour traffic. Flextime is most useful in offices, particularly for administrative and information workers. It may not be as applicable for non-office employers since their employees often have to work hours that are not during the peak hour of traffic demand anyway (e.g., retail employers), or because their work requires continuous communication between workers. In addition, flextime may be difficult for small employers to implement.

### **Staggered Work Hours**

Staggered work hours is a policy of established starting and finishing times for different groups of employees. Unlike flextime, the employer, not the employee, determines the staggered work hours. Like flextime, this tool has greater applicability to employees of large offices, since many non-office employees already work staggered work hours, or work in an interdependent manner. Currently, some metropolitan area employers have staggered work hours due to the nature of their business. To have a significant impact on peak period traffic, however, a change in work hours would need to be much more widespread than it is today.

Government agencies could take a lead by establishing a standard work schedule that differs from the typical 8 a.m.-5 p.m. schedule. For example, employees can be encouraged to work a 7-to-4 or 9-to-6 day work schedule. This is often done for the street and parks crews in public works situations because of summer hours and weather conditions. It might also be established for other employees although some agencies and local governments have encountered opposition from employee groups claiming they should have additional compensation for unusual work hours. Staggered work hours have to be considered in light of the need to have service desk hours that meet the needs of residents, but could actually increase the opportunities for resident contact.

### **Compressed Work Week**

Compressed workweeks involve employees working fewer days and more hours per day. One common form of this policy is the 4-day/40-hour week where the employee works four 10-hour days. A second common form is the 9-day/80 hour schedule, in which the employee works 9 days and 80 hours over a two-week period. With the 4/40 schedule, the employee gets one business day off each week; with the 9/80 schedule, the employee gets one business day off each two weeks.

Because of the extended hours, both policies usually shift at least one leg of a work trip per working day (either the arriving or departing leg) out of the peak hours. The 4/40 policy additionally eliminates an entire work trip every five business days (1/5 of the work trips). The 9/80 policy eliminates an entire work trip every 10 business days (1/10 of the work trips). One of the problems with a compressed work schedule is the potential for increases in non-work trips during the “off day.” Increases in non-work travel may offset reductions in work related driving. Such trips, however, are often taken during non-peak periods and can be expected to provide benefits by reducing peak hour congestion and by improving air quality.

### **Telecommuting**

Telecommuting is another way employers can reduce total trip demand. Telecommuting or telework is work done away from the worksite with the assistance of telecommunications technologies, serving to reduce trips to and from the worksite. Phones, pagers, faxes, emails, computers, and the Internet all are telework tools. Telecommuting for one or two days per week could save significant trip miles and still allow the benefits of working at the central work site. Telecommuting arrangements also may involve

more than one employee, e.g., when an employer provides a satellite work center connected to the principal work center. Another telecommuting alternative is a neighborhood work center operated by more than one employer, or by an agency. Recent advances in communications technology should greatly enhance telecommuting options.

### **Ridesharing**

Ridesharing includes two principal categories: carpooling and vanpooling. Carpooling uses an employee's private vehicle to carry other people to work or other destination, either by using one car and sharing expenses, or by rotating driving responsibilities and vehicles. Vanpooling involves the use of a passenger van consistently driven by one or more of the participating employees, with the costs partially paid by the other riders through monthly fares. A common feature of vanpooling is that the van is often owned by the employer, a public agency (such as a transit district), or a private, non-profit corporation set up for that purpose. Otherwise a lease agreement can be set up.

Ridesharing can be greatly influenced by special treatment at the work place. Participation can be increased by employer actions that make ridesharing more convenient, such as providing guaranteed ride home services, preferential car/vanpool parking, and area-wide and employer-based commuter matching services.

### **Guaranteed Ride Home (GRH)**

A guaranteed ride home often makes ridesharing more attractive. Surveys have shown that many employees drive to work because they feel they need their automobile during the day or because they may work late. In some cases, they need their automobile for work trips or errands or want it available for emergencies. Therefore, provision of daytime and emergency transportation, by allowing use of a company vehicle or employer-sponsored free taxi, can encourage ridesharing. ~~RVTD began a GRH program in 2004 and it can be used by any employer that adopts TO strategies. The program is set up so that the employer must be the first responsible party for securing a ride home and if this is not an option, RVTD's Translink call service for the Valley Lift program will schedule a taxi for the employee at no charge to the employee.~~

### **Preferential Parking**

Preferential carpool and vanpool parking is another simple, inexpensive way for an employer to encourage employees to rideshare by increasing the ease of access to the workplace. Ideally preferential carpool and vanpool parking spaces are provided close to the building entrance to provide convenient access to the building, particularly during inclement weather conditions. Adequate enforcement strategies need to be in place so that the spaces are not filled with SOV.

### **Ride-matching**

Commuter matching services, whether area-wide or employer-based, help commuters find others with similar locations and schedules. An employer-based matching service offers the advantage of a shared destination, but presents the disadvantage of limiting the pool of potential riders. A carpool matching service can be one-time or continuous. For the study area, the Rogue Valley Transportation District serves as the carpooling agency and performs a variety of services to support and encourage the use of carpools, including matching of potential riders through Oregon's Drive Less Connect program ([www.drivelessconnect.com](http://www.drivelessconnect.com)). ~~They lease a website created by the City of Portland ([www.CarpoolMatchNW.org](http://www.CarpoolMatchNW.org)) and offered for free to participating counties.~~

### **Support for TO**



Oregon State, County and City policies and goals include provisions to embrace TO measures. Health officials, real estate professionals, insurance companies, credit agencies, environmental stewards, people under the age of 16, people with disabilities, low-income populations can all benefit from TO measures.

### Current TO Activities RVTD TO Program

~~RVTD has had a TO program in place since 1993. Some of the c~~Current TO activities that are available to the MRMPO member jurisdictions offered by RVTD in conjunction with Josephine Community Transit (JCT) include:

- Alternative Transportation education programs that reach the public; several thousand students during the school year are expanding to add a Senior Education program;
- Public outreach activities to promote TO and non-SOV transportation modes; Employer bus-pass programs;
- Free assistance through the Drive Less Connect program with carpools, vanpools, Business Energy Tax Credits; telework, and trip-reduction incentives;
- Free employer trip-reduction analysis upon request;
- On site transportation fairs for employers upon request;
- Distribution of free materials in the community such as pedestrian and cycling reflectors;  
brochures, water bottles, bicycle helmets;
- ~~Government outreach to educate officials about TO measures including attending meetings to promote the use of TO measures, and reviewing planning documents and site design for TO-supportive policies and infrastructure;~~
- ~~Supporting parking construction mitigation- reducing the need for parking expansion with TO measures;~~
- ~~Bicycle parking review and site design;~~
- Trip Reduction Incentive Programs- Through the Drive Less Connect program by cCreating and assisting with building and maintaining a Trip Reduction program that tracks employees' trips and rewards those who use non-SOV modes;
- Coordination of events to raise awareness of efficient transportation such as the Drive Less Challenge; Car Free Day, Reflect on Walking, Safe Routes to School; and
- Marketing of TO through general advertising in various media.

### Future TO Activities

The following list of TO activities will be integrated with the current TO activities listed above as more resources become available:

- Government outreach to educate officials about TO measures including attending meetings to promote the use of TO measures, and reviewing planning documents and site design for TO-supportive policies and infrastructure;
- Supporting parking construction mitigation- reducing the need for parking expansion with TO measures;
- Bicycle parking review and site design;
- Individualized TO marketing programs;
- Marketing of TO through general advertising in various media; and
- Business commute challenge.

#### 4. Educating the Public about TO

Education and marketing are important parts of any TO program. It is possible for education by itself to be an incentive or disincentive that causes positive transportation behavior changes. Education and marketing complement any incentive/disincentive programs in place by increasing awareness and understanding of those programs. Education can be hands-on such as supporting a bus/bike-buddy program or it can be through traditional media such as newspaper, radio and TV advertisement, flyers and brochures, transportation exhibits, attending public meetings and giving testimony to public officials. Education that would promote using alternative modes of transportation would consist of highlighting the health and economic benefits, the environmental benefits as well as the facilities that a person can use. Marketing that would make driving a car less attractive could show the true cost of owning a car, the environmental impact, how it increases sprawl and dependence on foreign oil, to name a few. Although education and marketing are basic building blocks to a successful program they can only supply so much initiative for using alternative transportation. An example would be that many people know what times to catch a bus and where the bus stop is from successful education and marketing but they cannot use it because their work schedule runs after service hours, or possibly there is not connected sidewalk access from their work to the bus stop and they feel unsafe.

#### 5. Facility and Service Requirements

TO addresses travel behavior – the choices people make – and seeks to establish conditions under which people will change a long-established habit of driving themselves to destinations. Providing the right kinds of facilities and services are crucial to the success of many of the policy changes and programs described in the preceding section. Several of those strategies are closely tied to land use planning and the provision of adequate pedestrian/bicycle facilities and transit services, and modifying parking requirements. Another example is that TO could include constructing of High Occupancy Vehicle (HOV) or “diamond” lanes or an exclusive busway.

Specific actions related to parking are included in the Parking [section of](#) Chapter [5](#). Strategies aimed at improving pedestrian and bicycle facilities are discussed separately in the Bicycle and Pedestrian [sections of](#) Chapter [5](#). Transit service ~~is improvements are~~ discussed in the Transit [section of](#) system Chapter [5](#). One key to the success of several TO strategies is establishment of park-and-ride facilities. These facilities increase efficiency of the transportation system, reduce energy consumption and provide options to the single-occupant vehicle trip. Park-and-ride facilities increase the effectiveness of transit service by expanding the area from which a transit draws riders. Patrons living beyond walking distance of an established transit stop can drive or bike to the park-and-ride and use transit or meet carpool partners, instead of driving alone or cycling long distances to their destination. Having free easy-to-access, secure and safe, easy to understand layouts, and direct pedestrian and bicyclist connections make the use of park-and-ride lots desirable.

Park-and-rides are frequently located near freeway interchanges or at transit stations and may be either shared-use, such as at a church or Transit Oriented Development (TOD) center, or exclusive-use. Shared-use facilities are generally designated and maintained through agreements reached between the local transit operator and nearby businesses, churches, or other entities.

Public opinion also has indicated that SOV use continues to be the desirable option at least in part because of the relative lack of serious highway congestion and safety problems in the region. In short, driving isn't difficult enough to force people to look for alternatives. While that attitude speaks well of our roads, it indicates that success with TO measures will be difficult. A challenge for the region in the



short-term will be to set the conditions in place now to support greater transit use in the future – when more drivers will be looking for easier traveling alternatives. Those conditions include reserving space for High-Occupancy Vehicle (HOV), Bus Rapid Transit (BRT) or carpool lanes, and park-and-ride areas, as well as securing funds to expand transit service for those who need it.

## 6. Future Outlook

TO relies on efficient land use planning, education, and making the use of walking, cycling, carpooling and transit attractive. The 25-year outlook for TO should focus on how the cities in the MRMPO can begin having incentives for developers to make compact development accessible for pedestrians and bicyclists, and on how education can promote the use of these facilities. By engaging in these activities driving a car will become less and less attractive as an option. Transit is only one component of TO; pedestrians and cyclists need to be part of the program also.

Home-to-work and return trips comprise about one-fifth of total daily trips, and about half of the peak period traffic. Although all other types of trips are potential targets for TO alternatives, the effect is likely to be considerably less because the trips are not as regularly scheduled (e.g., shopping or business trips), often already have a higher vehicle occupancy (e.g., school trips), and sometimes involve the transfer of goods (e.g., shopping trips). Therefore, TO strategies recommended for the metropolitan area focus primarily on home-to-work and return trips. Strategies include establishing alternative work arrangements, promoting telecommuting and ridesharing, and, possibly, adopting a trip reduction ordinance.

## 7. Policy Issues and Actions

There are several actions that can be taken to further the aims of TO. They include:

- Identifying, encouraging and assisting role models who use alternative transportation. This can be done through awards, incentives and events.
- Encouraging developers to build high-density, multi-use buildings.
- Adopting maximum parking space requirements and an option to decrease parking further with the use of TO measures such as having attractive bicycle and pedestrian facilities, and carpool spaces within ¼ mile of transit service.
- Partnering with city government to encourage employers with more than 50 employees to adopt TO strategies.
- Prioritizing all city and county TSP bicycle and pedestrian construction projects to be completed in the earlier phases of this Plan.
- Encouraging developments with a large footprint to have a bicycle and pedestrian circulation plan.
- Securing funding for street aesthetics such as street furniture, landscaping, lighting, and creating dispersed tiny public places.
- Supporting the use of transit among major employers by encouraging the purchase of individual or subsidized group transit passes, having a bus shelter added nearby or other actions to reduce commuting trips; and
- ~~Encouraging development of discount transit fare programs and shuttle services by event sponsors; and~~

- Engaging in public, government and employer outreach to raise awareness about the use of TO strategies, including actively marketing to groups that have the greatest potential for reducing SOV trips