



***2020 – 2045***

***Regional  
Transportation  
Plan***

*Adopted March 30, 2020*

**Middle Rogue Metropolitan Planning Organization**

The MRMPO is staffed by the Rogue Valley Council of Governments

MIDDLE ROGUE  
REGIONAL TRANSPORTATION PLAN

Prepared for

**MIDDLE ROGUE METROPOLITAN PLANNING ORGANIZATION**

the City of Gold Hill  
the City of Grants Pass  
the City of Rogue River  
Josephine County  
Jackson County  
Oregon Department of Transportation

and

**ROGUE VALLEY COUNCIL OF GOVERNMENTS**  
Board of Directors

Adopted by the MRMPO Policy Committee, **March 30, 2020**  
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**Middle Rogue Metropolitan Planning Organization**

**2020 -2045 Regional Transportation Plan**

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## Appendix A

### Regulatory Framework

This Transportation Plan is intended to meet both federal and state requirements for regional transportation plans as described in the federal transportation act Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21), the U.S. Clean Air Act amendments of 1990, and Oregon's Transportation Planning Rule (TPR). This chapter describes the federal and state rules, regulations, and policies that influence the content of this document.

#### A. Federal Regulation

According to the 23 CFR, §450.322:

*(a) The metropolitan transportation planning process shall include the development of a transportation plan addressing no less than a 20-year planning horizon as of the effective date. .... In attainment areas, the effective date of the transportation plan shall be its date of adoption by the MPO and then every four (4) years thereafter.*

*(b) The transportation plan shall include both long-range and short-range strategies/actions that lead to the development of an integrated multimodal transportation system to facilitate the safe and efficient movement of people and goods in addressing current and future transportation demand.*

*(c) The MPO shall review and update the transportation plan at least every four years in air quality nonattainment and maintenance areas and at least every five years in attainment areas to confirm the transportation plan's validity and consistency with current and forecasted transportation and land use conditions and trends and to extend the forecast period to at least a 20-year planning horizon. In addition, the MPO may revise the transportation plan at any time using the procedures in this section without a requirement to extend the horizon year. The transportation plan (and any revisions) shall be approved by the MPO and submitted for information purposes to the Governor. Copies of any updated or revised transportation plans must be provided to the FHWA and the FTA.*

*(d) In metropolitan areas that are in nonattainment for ozone or carbon monoxide, the MPO shall coordinate the development of the metropolitan transportation plan with the process for developing transportation control measures (TCMs) in a State Implementation Plan (SIP);*

*(e) The MPO, the State(s), and the public transportation operator(s) shall validate data utilized in preparing other existing modal plans for providing input to the transportation plan. In updating the transportation plan, the MPO shall base the update on the latest available estimates and assumptions for population, land use, travel, employment, congestion, and economic activity. The MPO shall approve transportation plan contents and supporting analyses produced by a transportation plan update.*

*(f) The metropolitan transportation plan shall, at a minimum, include:*

*(1) The projected transportation demand of persons and goods in the metropolitan planning area over the period of the transportation plan;*

*(2) Existing and proposed transportation facilities (including major roadways, transit, multimodal and intermodal facilities, pedestrian walkways and bicycle facilities, and intermodal connectors) that should function as an integrated metropolitan transportation system, giving emphasis to those facilities that serve important national and regional transportation functions over the period of the transportation plan. In addition, the locally preferred alternative selected from an Alternatives Analysis under the FTA's Capital Investment Grant program (49 U.S.C. 5309 and 49 CFR part 611) needs to be adopted as part of the metropolitan transportation plan as a condition for funding under 49 U.S.C. 5309;*

*(3) Operational and management strategies to improve the performance of existing transportation facilities to relieve vehicular congestion and maximize the safety and mobility of people and goods;*

*(4) Consideration of the results of the congestion management process in TMAs that meet the requirements of this subpart, including the identification of SOV projects that result from a congestion management process in TMAs that are nonattainment for ozone or carbon monoxide; [Not Applicable to this Area];*

*(5) Assessment of capital investment and other strategies to preserve the existing and projected future metropolitan transportation infrastructure and provide for multimodal capacity increases based on regional priorities and needs. The metropolitan transportation plan may consider projects and strategies that address areas or corridors where current or projected congestion threatens the efficient functioning of key elements of the metropolitan area's transportation system;*

*(6) ...In all areas (regardless of air quality designation), all proposed improvements shall be described in sufficient detail to develop cost estimates;*

*(7) A discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the metropolitan transportation plan. The discussion may focus on policies, programs, or strategies, rather than at the project level. The discussion shall be developed in consultation with Federal, State, and Tribal land management, wildlife, and regulatory agencies. The MPO may establish reasonable timeframes for performing this consultation;*

*(8) Pedestrian walkway and bicycle transportation facilities in accordance with 23 U.S.C. 217(g);*

*(9) Transportation and transit enhancement activities, as appropriate; and*

*(10) A financial plan that demonstrates how the adopted transportation plan can be implemented.*

*(i) For purposes of transportation system operations and maintenance, the financial plan shall*

*contain system-level estimates of costs and revenue sources that are reasonably expected to be available to adequately operate and maintain Federal-aid highways (as defined by 23 U.S.C. 101(a)(5)) and public transportation (as defined by title 49 U.S.C. Chapter 53).*

*(ii) For the purpose of developing the metropolitan transportation plan, the MPO, public transportation operator(s), and State shall cooperatively develop estimates of funds that will be available to support metropolitan transportation plan implementation, as required under §450.314(a). All necessary financial resources from public and private sources that are reasonably expected to be made available to carry out the transportation plan shall be identified.*

*(iii) The financial plan shall include recommendations on any additional financing strategies to fund projects and programs included in the metropolitan transportation plan. In the case of new funding sources, strategies for ensuring their availability shall be identified.*

*(iv) In developing the financial plan, the MPO shall take into account all projects and strategies proposed for funding under title 23 U.S.C., title 49 U.S.C. Chapter 53 or with other Federal funds; State assistance; local sources; and private participation. Starting December 11, 2007, revenue and cost estimates that support the metropolitan transportation plan must use an inflation rate(s) to reflect “year of expenditure dollars,” based on reasonable financial principles and information, developed cooperatively by the MPO, State(s), and public transportation operator(s).*

*(v) For the outer years of the metropolitan transportation plan ( i.e. , beyond the first 10 years), the financial plan may reflect aggregate cost ranges/cost bands, as long as the future funding source(s) is reasonably expected to be available to support the projected cost ranges/cost bands.*

*(vi) For nonattainment and maintenance areas, the financial plan shall address the specific financial strategies required to ensure the implementation of TCMs in the applicable SIP. [Not Applicable to this Area – the Grants Pass CO & PM<sub>10</sub> Maintenance Areas do not have any TCMs].*

*(vii) For illustrative purposes, the financial plan may (but is not required to) include additional projects that would be included in the adopted transportation plan if additional resources beyond those identified in the financial plan were to become available.*

*(viii) In cases that the FHWA and the FTA find a metropolitan transportation plan to be fiscally constrained and a revenue source is subsequently removed or substantially reduced ( i.e. , by legislative or administrative actions), the FHWA and the FTA will not withdraw the original determination of fiscal constraint; however, in such cases, the FHWA and the FTA will not act on an updated or amended metropolitan transportation plan that does not reflect the changed revenue situation.*

*(g) The MPO shall consult, as appropriate, with State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of the transportation plan. The consultation shall involve, as appropriate:*

- (1) Comparison of transportation plans with State conservation plans or maps, if available; or*
- (2) Comparison of transportation plans to inventories of natural or historic resources, if available.*

*(h) The metropolitan transportation plan should include a safety element that incorporates or summarizes the priorities, goals, countermeasures, or projects for the MPA contained in the Strategic Highway Safety Plan required under 23 U.S.C. 148, as well as (as appropriate) emergency relief and disaster preparedness plans and strategies and policies that support homeland security (as appropriate) and safeguard the personal security of all motorized and non-motorized users.*

*(i) The MPO shall provide citizens, affected public agencies, representatives of public transportation employees, freight shippers, providers of freight transportation services, private providers of transportation, representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with a reasonable opportunity to comment on the transportation plan using the participation plan developed under §450.316(a).*

*(j) The metropolitan transportation plan shall be published or otherwise made readily available by the MPO for public review, including (to the maximum extent practicable) in electronically accessible formats and means, such as the World Wide Web.*

*(k) A State or MPO shall not be required to select any project from the illustrative list of additional projects included in the financial plan under paragraph (f)(10) of this section.*

*(1) In nonattainment and maintenance areas for transportation-related pollutants, the MPO, as well as the FHWA and the FTA, must make a conformity determination on any updated or amended transportation plan in accordance with the Clean Air Act and the EPA transportation conformity regulations (40 CFR part 93). During a conformity lapse, MPOs can prepare an interim metropolitan transportation plan as a basis for advancing projects that are eligible to proceed under a conformity lapse. An interim metropolitan transportation plan consisting of eligible projects from, or consistent with, the most recent conforming transportation plan and TIP may proceed immediately without revisiting the requirements of this section, subject to interagency consultation defined in 40 CFR part 93. An interim metropolitan transportation plan containing eligible projects that are not from, or consistent with, the most recent conforming transportation plan and TIP must meet all the requirements of this section.*

## **B. Oregon's Transportation Planning Rule (TPR)**

The Transportation Planning Rule (TPR) (OAR660-012) requires MPOs to develop a Transportation System Plan (TSP) for a coordinated network of transportation facilities and services of regional significance. The TSP is to provide for a safe, convenient and economic transportation system that reduces reliance on the automobile so that air pollution, traffic and other livability problems typically faced by urban areas might be avoided.

As a TSP, this document must address:

*(1) A TSP shall establish a coordinated network of transportation facilities adequate to serve state, regional and local transportation needs.*

*(2) The TSP shall include the following elements:*

*(a) A determination of transportation needs as provided in OAR 660-012-0030;*

*(b) A road plan for a system of arterials and collectors and standards for the layout of local streets and other important non-collector street connections. Functional classifications of roads in regional and local TSP's shall be consistent with functional classifications of roads in state and regional TSP's and shall provide for continuity between adjacent jurisdictions. The standards for the layout of local streets shall provide for safe and convenient bike and pedestrian circulation necessary to carry out OAR 660-0120045(3)(b). New connections to arterials and state highways shall be consistent with designated access management categories. The intent of this requirement is to provide guidance on the spacing of future extensions and connections along existing and future streets which are needed to provide reasonably direct routes for bicycle and pedestrian travel. The standards for the layout of local streets shall address:*

*(A) Extensions of existing streets;*

*(B) Connections to existing or planned streets, including arterials and collectors; and*

*(C) Connections to neighborhood destinations.*

*(c) A public transportation plan which:*

*(A) Describes public transportation services for the transportation disadvantaged and identifies service inadequacies;*

*(B) Describes intercity bus and passenger rail service and identifies the location of terminals;*

*(C) For areas within an urban growth boundary which have public transit service, identifies existing and planned transit trunk routes, exclusive transit ways, terminals and major transfer stations, major transit stops, and park-and-ride stations. Designation of stop or station locations may allow for minor adjustments in the location of stops to provide for efficient transit or traffic operation or to provide convenient pedestrian access to adjacent or nearby uses.*

*(D) For areas within an urban area containing a population greater than 25,000 persons, not currently served by transit, evaluates the feasibility of developing a public transit system at buildout. Where a transit system is determined to be feasible, the plan shall meet the requirements of paragraph (2)(c)(C) of this rule.*

*(d) A bicycle and pedestrian plan for a network of bicycle and pedestrian routes throughout the planning area. The network and list of facility improvements shall be consistent with the requirements of ORS 366.514;*

*(e) An air, rail, water and pipeline transportation plan which identifies where public use airports, mainline and branch line railroads and railroad facilities, port facilities, and major regional pipelines and terminals are located or planned within the planning area. For airports, the planning area shall include all areas within airport imaginary surfaces and other areas covered by state or federal regulations;*

*(f) For areas within an urban area containing a population greater than 25,000 persons a plan for transportation system management and demand management;*

*(g) A parking plan in MPO areas as provided in OAR 660-012-0045(5) (c);*

*(h) Policies and land use regulations for implementing the TSP as provided in OAR 660-012-0045;*

*(i) For areas within an urban growth boundary containing a population greater than 2500 persons, a transportation financing program as provided in OAR 660-012-0040.*

*(3) Each element identified in subsections (2)(b)-(d) of this rule shall contain:*

*(a) An inventory and general assessment of existing and committed transportation facilities and services by function, type, capacity and condition:*

*(A) The transportation capacity analysis shall include information on:*

*(i) The capacities of existing and committed facilities;*

*(ii) The degree to which those capacities have been reached or surpassed on existing facilities.*

## Appendix B

### Performance Based Planning

The most recent federal surface transportation enabling laws, Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation (FAST) Act, established a new performance-based approach to planning and programming. Performance management and performance-based planning and programming increases the accountability and transparency of the Federal-aid program and provides for a framework to support improved investment decision making through a focus on performance outcomes for key national transportation goals. This process will ensure the most efficient investment of Federal transportation funds.

The new rules establish a set of national performance measures that have implications for transportation planning at state departments of transportation (DOTs) and Metropolitan Planning Organizations (MPOs) and mass transit districts. The rulemaking process for these performance measures is nearing its completion. MRMPO is working closely with the Oregon Department of Transportation (ODOT) to incorporate these federal performance measures into state and regional transportation planning and provide useful performance barometers of the regional transportation system. All TIPs and Regional Transportation Plans (RTPs) approved or amended after May 27, 2018, shall be designed such that once implemented, it makes progress towards achieving the performance targets identified in the metropolitan transportation plan and describe how the projects in the TIP would achieve the MPO performance targets—linking investment priorities to those targets.

#### A. Performance Measures

MAP-21 introduced a set of national goals regarding surface transportation focusing mainly on roads. These are (from 23 USC §150(b)):

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

MAP-21 also specified, in broad strokes, the performance measures that the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) would need to develop to show progress toward meeting the national goals. The FHWA and FTA have spent the years since the adoption of MAP-21 developing a set of performance measures that can be applied nation-wide to track the progress of the DOTs and MPOs. The final performance measures along with the date they were published are summarized in Table 4.1. It should be noted that as of May 30, 2018, no final rule has been published for transit safety.

Once a rule for a performance measure has been finalized, DOTs and public transit providers have up to one year to adopt targets for that measure. MPOs have 180 days after that to develop their targets or agree to support the state DOT target. MRMPO will be working to develop targets for each applicable performance measure over the next several years. At the time of this revision, MRMPO has agreed to support the ODOT targets for the Safety performance measures (discussed below) and accepted the Transit Asset Management performance measures established by JCT (discussed below).

## **B. Safety**

The FHWA Final Rule on National Performance Management Measures established five safety performance measures for Federal-aid highway programs (23 CFR 490.207).

- 1) Number of roadway fatalities;
- 2) Number of roadway serious injuries;
- 3) Roadway fatalities per vehicle miles traveled (i.e., fatality rate);
- 4) Roadway serious injuries per vehicle miles traveled (i.e., serious injury rate); and
- 5) Combined number of non-motorized fatalities and non-motorized serious injuries.

ODOT was required to establish specific numeric statewide targets for each of the five safety performance measures by August 31, 2017, for calendar year 2018, and will be required to report targets annually in the Highway Safety Improvement Program (HSIP) hereafter. In addition to the existing reporting requirements, the HSIP Final Rule also requires States to describe in their annual reports the progress toward achieving safety outcomes and performance targets.



**Table 4.1 Federal Performance Measures**

Roadway Measure	First Target Due	
	ODOT	MRMPO
<b>Safety – Final Rules as of May 27, 2016</b>		
<ul style="list-style-type: none"> <li>- Serious injuries per vehicle mile travelled</li> <li>- Fatalities per vehicle mile travelled</li> <li>- Number of serious injured</li> <li>- Number of fatalities</li> <li>- Number of fatalities and serious injuries for non-motorized users</li> </ul>	August 31, 2017	February 27, 2018
<b>Pavement and Bridge Condition – Final Rule Effective Date May 20, 2017</b>		
<b>Pavement</b> <ul style="list-style-type: none"> <li>- Percentage of pavements of the Interstate System in Good condition</li> <li>- Percentage of pavements of the Interstate System in Poor condition</li> <li>- Percentage of pavements of the non-Interstate NHS in Good condition</li> <li>- Percentage of pavements of the non-Interstate NHS in Poor condition</li> </ul> <b>NHS Bridge</b> <ul style="list-style-type: none"> <li>- Percentage of NHS Bridges Classified as in Good condition</li> <li>- Percentage of NHS Bridges Classified as in Poor condition</li> </ul>	May 20, 2018	November 16, 2018
<b>Performance of the National Highway System – Final Rule Effective Date May 20, 2017*</b>		
<b>Travel Time Reliability</b> <ul style="list-style-type: none"> <li>- Percent of the Person-Miles traveled on the Interstate System that are reliable</li> <li>- Percent of the Person-Miles traveled on the non-Interstate NHS that are reliable</li> </ul> <b>Freight Movement</b> <ul style="list-style-type: none"> <li>- Truck Travel Time Reliability Index</li> </ul> <b>Congestion and Air Quality Improvement Program (CMAQ)</b> <ul style="list-style-type: none"> <li>- Total Emissions Reduction for all CMAQ funded projects</li> <li>- Annual Hours of Peak Hour Excessive Delay Per Capita**</li> <li>- Percent of Non-SOV Travel**</li> <li>- Percent change in tailpipe CO<sub>2</sub> emissions on the NHS compared to 2017</li> </ul>	May 20, 2018	November 16, 2018   2022**
<b>Transit Asset Management (TAM)– Final Rules as of October 1, 2016</b>		
<ul style="list-style-type: none"> <li>- Percent of revenue vehicles (by type) that exceed the useful life benchmark (ULB)</li> <li>- Percent of non-revenue service vehicles (by type) that exceed ULB</li> <li>- Percent of facilities (by type) that are rated less than 3 on the TERM scale</li> <li>- Percent of track segments that have performance restrictions</li> </ul>	January 1, 2017	June 30, 2017
<b>Transit Safety – DRAFT MEASURES – Final Rules TBD</b>		
<ul style="list-style-type: none"> <li>- Total number of reportable fatalities and rate per total unlinked passenger trips by mode</li> <li>- Total number of reportable injuries and rate per total unlinked passenger trips by mode</li> <li>- Total number of reportable events and rate per total vehicle miles by mode</li> </ul>	Pending	180 days after state target due

\*GHG emission effective date was Sept 28, 2017. FHWA is in the process of revoking this measure via the rule-making process.

\*\*First target due 2022

ODOT developed targets in the 2016 Oregon Transportation Safety Action Plan (TSAP), which are summarized in Table 4.2. The targets listed in Table 4.2 for the 2018 report year were submitted to FHWA on August 31, 2017, as their HSIP targets. The targets that were preliminarily set for 2019 and beyond may be revised based on actual data before they are submitted for subsequent year targets.

**Table 4.2  
Oregon Safety Performance Targets**

Base Period	Fatalities (People 2011-2015)	Statewide Targets		Serious Injury Rate (People per 100 million VMT 2010-2014)	Nonmotorized Fatalities and Serious Injuries (People 2010-2014)
		Fatality Rate (People per 100 million VMT 2011 - 2015)	Serious Injury (People 2010-2014)		
Baseline	357	1.04	1,491	4.42	234
2013-2017	357	0.94	1,491	4.42	234
2014-2018*	350	0.89	1,461	4.33	229
2015-2019	343	0.83	1,432	4.24	225
2016-2020	328	0.78	1,368	4.06	215
2017-2021	306	0.73	1,274	3.78	200

MPOs must establish targets for the five safety performance measures within 180 days after the state establishes targets. MRMPO targets were due to ODOT by February 27, 2018.

According to 23 CFR 490.209 (c)(4) and FHWA guidance, when setting targets, MPOs have three options: they can either agree to support the state safety targets for the five performance measures, establish their own quantifiable target for each of the five safety performance measures, or do a combination of supporting the DOTs targets for some measures and setting their own target for the remaining measures. Agreeing to support ODOT’s target means MRMPO proposes to:

- 1) Work with ODOT and other safety stakeholders to address areas of concern within the MRMPO area regarding fatalities and serious injuries;
- 2) Coordinate with ODOT and include the safety performance measures and HSIP (Highway Safety Implementation Program) targets in the Regional Transportation System Plan (RTSP);
- 3) Integrate into the planning process the safety goals, objectives, performance measures, and targets described in other ODOT safety plans and processes such as applicable portions of the HSIP including the State Highway Safety Plan (SHSP); and
- 4) Include a description in the MRMPO TIP of the anticipated effect of the TIP toward achieving the HSIP targets in the RTSP, linking investment priorities in the TIP to those safety targets.

The Policy Committee adopted the state targets for the five safety performance measures at its February 18, 2018 meeting of the Policy Committee.

### **How projects in the TIP help achieve Safety Targets**

The safety of all users on our transportation system has always been a high priority for MRMPO and the local jurisdictions, especially vulnerable users. One of the goals of the MRMPO 2015-2035 Regional Transportation Systems Plan (RTSP) is to have a regional transportation system plan that is designed with the safety of all users in mind. The scoring criteria used to prioritize projects that are considered for MRMPO funding directly links the goals of the RTSP with the selection of projects.

Almost every project in the TIP has a safety element. Projects that more directly benefit the safety of the transportation system include:

- HSIP projects – HSIP projects are specifically selected to improve the safety of the roadway. Projects include buffered bike lanes, road diet, enhanced pedestrian crossings, signal improvements, curve warning signs, rumble strips, turn lanes, and other proven safety measures.
- Urban Upgrade Projects - Projects that add bike lanes and sidewalks along the roadway reduces the need for non-motorists to walk or bike in the roadway, along narrow shoulders, or in the ditch. Separating the vulnerable users from motor vehicles provides a safer environment, reducing the chances of dying or being seriously injured.
- Intersection Improvements – Projects that add, or replace, traffic signals and/or add turn lanes reduce the potential for serious crashes. Most crashes occur at intersections.

### **C. Pavement and Bridge Condition**

ODOT was required to establish specific numeric statewide targets for each of the six pavement and National Highway System (NHS) bridge condition performance measures by May 20, 2018, for calendar year 2018 and will be required to report them every four years. MPOs must establish targets 180 days after the state establishes targets. The MRMPO has adopted the state's targets for this measure.

### **D. Performance of the National Highway System (NHS)**

ODOT was required to establish specific numeric statewide targets for each of the six performance measures evaluating the system performance of the NHS by May 20, 2018, for calendar year 2018 and will be required to report them every four years. These include travel time reliability, freight movement, Congestion and Air Quality Program (CMAQ). For the CMAQ measures, only the total emissions reduction for all CMAQ funded project measure is required for MPOs with more than 200,000 people during the first reporting period (January 1, 2018 to December 31, 2021). The MRMPO is unaffected by this measure.

## **E. Transit Asset Management (TAM)**

In 2012, MAP-21 mandated FTA to develop a rule establishing a strategic and systematic process of operating, maintaining, and improving public capital assets effectively through their entire life cycle. The FTA Final Rule for Transit Asset Management (49 USC 625) established four performance measures for transit districts.

- 1) Rolling Stock: The percentage of revenue vehicles (by type) that exceed the useful life benchmark (ULB).
- 2) Equipment: The percentage of non-revenue service vehicles (by type) that exceed the ULB.
- 3) Facilities: The percentage of facilities (by group) that are rated less than 3.0 on the Transit Economic Requirements Model (TERM) Scale.
- 4) Infrastructure: The percentage of track segments (by mode) that have performance restrictions. Track segments are measured to the nearest 0.01 of a mile. (JCT does not operate a track system; therefore, this measure does not apply.)

It was stated in the Rule that transit districts must develop and adopt TAM targets by January 1, 2017 and finalize a Transit Asset Management plan by October 1, 2018. Targets are to be set and submitted each fiscal year. There is no penalty for missing a target and there is no reward for attaining a target. MPOs must establish targets specific to the MPO planning area for the same performance measures for all public transit providers in the MPO planning area within 180 days of when the transit provider establishes its targets. MRMPO is required to either develop separate targets or agree to support the Josephine Community Transit (JCT) targets and work toward realizing them.

### **How projects in the TIP help achieve TAM Targets**

MRMPO is committed to supporting the transit system in the area. Historically, MRMPO's federal funds have been used to help purchase approximately one bus per year as well as promote greater accessibility. For efficiency purposes, the funds for several years and sources have been combined for one larger purchase once every several years.

Table 4.3 on the following page shows all of the state's targets as required by federal law.

**Table 4.3 Oregon Targets for Federal Performance Measures**

Safety					
Base Period	Fatalities (People) (2011-2015)	Fatality Rate (People per 100 Million VMT) (2011-2015)	Serious Injury (People) (2010-2014)	Serious Injury Rate (People per 100 Million VMT) (2010-2014)	Non-motorized Fatalities and Serious Injuries (People) (2010-2014)
Baseline	357	1.04	1,491	4.42	234
2013-2017	357	0.94	1,491	4.42	234
2014-2018*	350	0.89	1,461	4.33	229
2015-2019	343	0.83	1,432	4.24	225
2016-2020	328	0.78	1,368	4.06	215
2017-2021	306	0.73	1,274	3.78	200
*2014-2018 is the first period that targets must be established for the HSIP Program. The federal performance areas and targets addressing safety are contained in the <a href="#">Oregon Transportation Safety Action Plan</a> .					
Pavement Condition					
Performance Measure			2022 Performance Target		
1. Percentage of pavements of Interstate System in Good condition			35%		
2. Percentage of pavements of the Interstate System in Poor condition			0.5%		
3. Percentage of pavements of the non-Interstate NHS in Good condition			2-Year	4-Year	
			50%	50%	
4. Percentage of pavements of the non-Interstate NHS in Poor condition			2-Year	4-Year	
			10%	10%	
Bridge Condition					
Performance Measure			2022 Performance Target		
5. Percentage of NHS bridges classified as in Good condition			10%		
6. Percentage of NHS bridges classified as in Poor condition			3%		
National Highway System Performance					
Performance Measure			2022 Performance Target		
7. Percent of the person-miles traveled on the Interstate that are reliable (Interstate Travel Time Reliability measure)			78%		
8. Percent of person-miles traveled on the non-Interstate NHS that are reliable (Non-Interstate Travel Time Reliability measure)			78%		
Freight Movement on Interstate System					
Performance Measure			2022 Performance Target		
9. Truck Travel Time Reliability (TTTR) Index (Freight Reliability measure)			1.45		
Congestion Mitigation and Air Quality - Traffic Congestion					
Performance Measure			2022 Performance Target		
10. Annual Hours of Peak Hour Excessive Delay (PHED) Per Capita (PHED measure)			23.96		
11. Percent of Non-SOV Travel			2-Year	4-Year	
			33.1%	33.5%	
Congestion Mitigation and Air Quality- On-Road Mobile Source Emissions					
Performance Measure			2022 Performance Target		
12. Total Emissions Reduction; 2-year and 4-year cumulative reported emission reductions, for all projects funded by CMAQ funds, of each criteria pollutant and applicable precursors (PM2.5, PM10, CO, VOC, and NOx) under the CMAQ program for which the area is designated nonattainment or maintenance			2-Year (Kg/Day)		4-Year (Kg/Day)
			VOC – 29.49		VOC – 58.97
			CO – 584		CO – 1168
			NOx – 71.45		NOx – 142.9
			PM10 – 363		PM10 – 726.4
			PM2.5 - .12		PM2.5 - .23

## Appendix C

### COMMON TRANSPORTATION PLANNING ACRONYMS AND TERMS

ACT:	Area Commission on Transportation
ADA:	Americans with Disabilities Act
ADT:	Average Daily Traffic
AQMA:	Air Quality Maintenance Area
CAAA:	Clean Air Act Amendments
CBD:	Central Business District
CMAQ:	Congestion Mitigation & Air Quality
CO:	Carbon Monoxide
DLCD:	Department of Land Conservation and Development
EPA:	Environmental Protection Agency
FFY:	Federal Fiscal Year: from October 1 to September 31.
FHWA:	Federal Highway Administration
FTA:	Federal Transit Administration
FTZ:	Foreign Trade Zone
FY:	Fiscal Year: (Oregon state fiscal year from July 1 to June 30)
GCP:	General Corridor Planning
GIS:	Geographic Information Systems
HOT:	High Occupancy Toll lane with extra charge for single occupants
HOV:	High Occupancy Vehicle lane for vehicles with more than one occupant
HPMS:	Highway Performance Monitoring System
I/M or I & M:	Inspection and Maintenance Program for emissions control
ISTEA:	Intermodal Surface Transportation Efficiency Act (1991), replaced by <b>TEA-21</b> , the Transportation Equity Act for the 21 <sup>st</sup> century, expired in 2003
ITS:	Intelligent Transportation Systems
LOS:	Level of Service, a measure of traffic congestion from A (free-flow) to F (grid-lock)
LRT:	Light Rail Transit, self-propelled rail cars such as Portland's MAX
MAP-21	Moving Ahead for Progress in the 21 <sup>st</sup> Century; 2013 transportation act.
MIS:	Major Investment Study
MOU:	Memorandum of Understanding
MPO:	Metropolitan Planning Organization, a planning body in an urbanized area over 50,000 population which has responsibility for developing transportation plans for that area
MTIP:	Metropolitan Transportation Improvement Program (same as TIP)
NAAQS:	National Ambient Air Quality Standards
NARC:	National Association of Regional Councils
NHS:	National Highway System
NPTS:	Nationwide Personal Transportation Survey
NTI:	National Transit Institute
OAR:	Oregon Administrative Rules

ODFW:	Oregon Department of Fish and Wildlife
ODOT:	Oregon Department of Transportation
ORS:	Oregon Revised Statutes
OTC:	Oregon Transportation Commission, ODOT's governing body
OTP:	Oregon Transportation Plan
PC:	MPO Policy Committee
PL Funds:	Public Law 112, Federal Planning Funds
PM <sub>10</sub> :	Particulate Matter of less than 10 Micrometers
PM <sub>2.5</sub> :	Particulate Matter of less than 2.5 Micrometers
RTP:	Regional Transportation Plan
RVACT:	Rogue Valley Area Commission on Transportation
RVCOG:	Rogue Valley Council of Governments
RVIA:	Rogue Valley International Airport
RVTD:	Rogue Valley Transportation District
SAFETEA-LU	Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users, the current 6-year surface transportation act, expired Sept. 2009
SIP:	State Implementation Plan
SOV:	Single Occupancy Vehicle
STA:	Special Transportation Area
STIP:	Statewide Transportation Improvement Program
STBG:	Surface Transportation Block Grant Program
TAC:	MPO Technical Advisory Committee
TAZ:	Transportation Analysis Zones
TCM:	Traffic Control Measures
TDM:	Transportation Demand Management
TIP:	Transportation Improvement Program
TOD:	Transit Oriented Development
TPAU:	Transportation Planning Analysis Unit
TPR:	Transportation Planning Rule
TRADCO:	Transportation Advisory Committee
TSM:	Transportation Systems Management
TSP:	Transportation System Plan
UGB:	Urban Growth Boundary
UPWP:	Unified Planning Work Program
US DOT:	U.S. Department of Transportation
VMT:	Vehicle Miles of Travel

**Appropriation** - Legislation that allocates budgeted funds from general revenues to programs that have been previously authorized by other legislation. The amount of money appropriated may be less than the amount authorized.

**Authorization** - Federal legislation that creates the policy and structure of a program including formulas and guidelines for awarding funds. Authorizing legislation may set an upper limit on program spending or may be open ended. General revenue funds to be spent under an authorization must be appropriated by separate legislation.

**Capital Costs** - Non-recurring or infrequently recurring cost of long-term assets, such as land, buildings, vehicles, and stations.

**Conformity Analysis** - A determination made by the MPOs and the US DOT that transportation plans and programs in non-attainment areas meet the “purpose” of the SIP, which is to reduce pollutant emissions to meet air quality standards.

**Emissions Budget** - The part of the SIP that identifies the allowable emissions levels for certain pollutants emitted from mobile, stationary, and area sources. The emissions levels are used for meeting emission reduction milestones, attainment, or maintenance demonstration.

**Emissions Inventory** - A complete list of sources and amounts of pollutant emissions within a specific area and time interval (part of the SIP).

**Exempt / Non-Exempt Projects** - Transportation projects which will not change the operating characteristics of a roadway are exempt from the Transportation Improvement Program conformity analysis. Conformity analysis must be completed on projects that affect the distance, speed, or capacity of a roadway.

**Federal-aid Highways** - Those highways eligible for assistance under Title 23 of the United States Code, as amended, except those functionally classified as local or rural minor collectors.

**Functional Classification** - The grouping of streets and highways into classes, or systems according to the character of service that they are intended to provide, e.g., residential, collector, arterial, etc.

**Key Number** - Unique number assigned by ODOT to identify projects in the TIP/STIP.

**Maintenance** - Activities that preserve the function of the existing transportation system.

**Maintenance Area** - “Any geographical region of the United States that the EPA has designated (under Section 175A of the CAA) for a transportation related pollutant(s) for which a national ambient air quality standard exists.” This designation is used after non-attainment areas reach attainment.

**Mobile Sources** - Mobile sources of air pollutants include motor vehicles, aircraft, seagoing vessels, and other transportation modes. The mobile source related pollutants of greatest concern are carbon monoxide (CO), transportation hydrocarbons (HC), nitrogen oxides (NO<sub>x</sub>), and particulate matter (PM<sub>10</sub>). Mobile sources are subject to a different set of regulations than are stationary and area sources of air pollutants.

**Non-attainment Area** - “Any geographic region of the United States that the EPA has designated as non-attainment for a transportation related pollutant(s) for which a national ambient air quality standard exists.”



**Regionally Significant** – From OAR 340-252-0030 (39) "Regionally significant project" means a transportation project, other than an exempt project, that is on a facility which serves regional transportation needs, such as access to and from the area outside the region, major activity centers in the region, major planned developments such as new retail malls, sports complexes, etc., or transportation terminals as well as most terminals themselves, and would normally be included in the modeling of a metropolitan area's transportation network, including at a minimum:

- (a) All principal arterial highways;
- (b) All fixed guideway transit facilities that offer an alternative to regional highway travel; and
- (c) Any other facilities determined to be regionally significant through interagency consultation pursuant to OAR 340-252-0060.

**3C - “Three C’s” = continuing, comprehensive, and cooperative** - This term refers to the requirements set forth in the Federal Highway Act of 1962 that transportation projects in urbanized areas be based on a “continuing, comprehensive transportation planning process carried out cooperatively by states and local communities.” ISTEA’s planning requirements broaden the framework for such a process to include consideration of important social, environmental and energy goals, and to involve the public in the process at several key decision making points.

# Chapter 1 – Introduction

## A. Purpose

This update to the Middle Rogue Regional Transportation Plan (RTP) is a multi-modal transportation review of the existing plan designed to meet the anticipated 25-year transportation needs within the Middle Rogue Metropolitan Planning Organization (MRMPO) planning area boundary.

Regional transportation systems have significant and long-term impacts on economic well-being and quality of life. Not only does the transportation system provide for the mobility of people and goods, it also influences patterns of growth and economic activity through accessibility to land. Furthermore, the performance of the transportation system affects public policy concerns such as air quality, environmental resource consumption, social equity, economic development, safety, and security.

Regional transportation planning recognizes the critical links between transportation and other societal goals. The planning process is more than merely listing highway and transit capital investments; it requires developing strategies for operating, managing, maintaining, and financing the regional transportation system in such a way to advance long-term goals.

*“Regional transportation planning recognizes the critical links between transportation and other societal goals.”*

The development, adoption of, and updates to the RTP are required to ensure that the metropolitan planning area remains eligible to receive state and federal transportation funding. Federal rules requiring completion and adoption of the Plan include the federal transportation act Fixing America’s Surface Transportation (FAST) and the U.S. Clean Air Act amendments of 1990.

As a product of multi-jurisdiction collaboration, the RTP reflects local jurisdiction policy and planning. While it is consistent with local plans, the RTP horizon extends beyond the horizon of most other adopted plans to fulfill federal requirements. Many of the long-range analysis and conditions described here are not within the scope of existing local plans and, therefore, should not be interpreted as the conditions planned or anticipated by the local jurisdictions. Within the region, transportation policy and planning are directed at the jurisdiction level, and as timeframes for local plans advance, the RTP will be amended accordingly.

As a regional plan, this document lays out in sufficient detail the type and location of individual projects. Local projects that MRMPO jurisdictions build with local funds are not included in this plan.

The RTP uses projections for future growth and development that are based on current trends and approved land uses, policies, and ordinances. It identifies the basic land-use assumptions

through the year 2045, including forecasts of future population and employment, and the resulting demand on the region’s arterial and collector street system. Future travel conditions were developed through travel demand modeling, using a peer-reviewed model developed in collaboration with the Oregon Department of Transportation’s Transportation Planning and Analysis Unit (TPAU).

## 1. Planning Period

The RTP serves as a guide for the management of existing transportation facilities and for the design and implementation of future transportation facilities through 2045. The Plan provides the framework and foundation for the region’s transportation future. Policies and project descriptions are provided to enable agencies and the public to understand and track projects that will be needed over the next 25 years. The Plan looks at different types of transportation opportunities

*“The RTP serves as a guide for the management of existing transportation facilities and for the design and implementation of future transportation facilities through 2045.”*

that are available and potentially beneficial, and considers how these various elements could fit together to foster a coordinated system by improving system management and operation.

Although the RTP focuses on intra-regional (within the region) travel, it also addresses interregional (through-region) travel.

Ultimately, the Plan reflects the balance the region strikes between competing demands for funding and competing views as to the best course for development across the region. The funding resources identified in the financial section are only those upon which the region can rely, so the projects identified may be reasonably anticipated to occur with known funding.

## 2. Air Quality Conformity

The U.S. Congress approved amendments to the Clean Air Act on November 15, 1990. Shortly thereafter, urban airsheds were tested and classified on the basis of their attainment or non-attainment to National Ambient Air Quality Standards (NAAQS). The Grants Pass Urban Growth Boundary (UGB) was designated as a non-attainment area for particulate matter less than ten micrometers (PM<sub>10</sub>) and the Grants Pass Central Business District (CBD) non-attainment for carbon monoxide (CO). However, monitoring data since that time has shown that pollutant levels are decreasing. CO and PM<sub>10</sub> levels have steadily declined and continue to be far below the NAAQS.

- On October 30, 2000, the Environmental Protection Agency (EPA) redesignated the Grants Pass CO non-attainment area to attainment and approved the maintenance plan.
- On December 26, 2003, the EPA re-designated the Grants Pass PM<sub>10</sub> non-attainment area to attainment for the NAAQS for PM<sub>10</sub> and approved the maintenance plan.

### Current Carbon Monoxide (CO) and PM<sub>10</sub> Status

Oregon Department of Environmental Quality (ODEQ) developed a CO and PM<sub>10</sub> Limited Maintenance Plan (LMP) for the Grants Pass area, which was submitted to EPA in April 2015

and will go into effect in September 2015. Based on ODEQ’s review of the 2002-2005 CO and PM<sub>10</sub> emissions data for Grants Pass, the area meets the requirements for a limited maintenance plan.

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. This is a considerable cost-savings to the MRMPO.

The 2045 RTP meets federal Clean Air Act requirements. Analysis shows that through the horizon of the Plan, under land-use conditions described and projects and policies that can be implemented within the current funding forecast, the region will meet standards for emissions of CO within the Grants Pass area, and PM<sub>10</sub> within the entire planning area. Information about this analysis and details about the process for meeting air quality requirements is contained in the *Air Quality Conformity Determination* developed for this Plan.

## **B. The Middle Rogue MPO Planning Area**

The MRMPO planning area includes the cities of Gold Hill, Grants Pass, Rogue River, and adjacent parts of Josephine and Jackson Counties which are anticipated to become urbanized over the 20 year planning horizon. In addition, the following agencies participate in the MRMPO planning processes: the Oregon Department of Transportation (ODOT), Oregon Department of Environmental Quality (ODEQ), Oregon Department of Land Conservation and Development (DLCD), Federal Highway Administration (FHWA), Federal Transit Administration (FTA) and U.S. Environmental Protection Agency (EPA).

*“The MRMPO planning area includes the cities of Gold Hill, Grants Pass, Rogue River, and adjacent parts of Josephine and Jackson Counties which are anticipated to become urbanized over the 20 year planning horizon.”*

Congress requires that metropolitan areas of at least 50,000 in population establish a metropolitan planning process that is continuing, collaborative, and comprehensive, in order for the region to continue receiving federal transportation funds. Currently there are over 400 metropolitan planning organizations in the nation. This Plan fulfills federal requirements that metropolitan areas develop and maintain long-range transportation plans.

**Figure 1-1: Middle Rogue MPO Planning Area**



The Grants Pass area reached the population threshold and was designated as an Urbanized Area (UA) after the 2010 Census. As a result, the Rogue Valley Council of Governments (RVCOG) was designated by the Governor of Oregon to staff the MRMPO on March 20, 2013. The RVCOG Board of Directors subsequently delegated responsibility for MRMPO policy functions to a Policy Committee of elected and appointed officials from all member jurisdictions.

Ultimately, MPOs provide the forum for the many jurisdictions and agencies within a particular metropolitan region to come together to address the transportation issues that confront them.

### **C. Regional Planning and Quality of Life**

Taking a regional approach to transportation planning gives communities the opportunity to look at projected future development and resulting travel demands and make decisions to avoid some of the unwelcome consequences of growth: sprawl development, traffic congestion and deteriorating air quality.

Thorough planning has become more significant as the cost of expanding roads to meet traffic demand has grown and the land on which to build has become scarcer and more valuable to the region for uses other than transportation. At the regional level, links between land use and roadway congestion may be more clearly seen and addressed. Through this Plan the public can see future transportation needs and take necessary steps now to address them efficiently and effectively.

The State and Federal regulatory framework that guides RTP development embodies many of the goals routinely brought forward by citizens when they talk about the region's future. None of the jurisdictions within the MRMPO exists in isolation: residents live in one jurisdiction, work in another, shop and recreate in others. Significant development in one jurisdiction is bound to affect conditions in other jurisdictions.

The RTP, like the regional transportation system, links the region’s jurisdictions. It identifies a transportation need they all hold in common and offers a foundation for addressing that need as the region grows.

## **D. Keeping the RTP Current**

This is the first update to the regional transportation plan for the MRMPO. Because of the air quality conditions in the Grants Pass area (air quality “maintenance area”), the MRMPO must be able to show consistently that the region is in conformity with air quality standards for at least 20 years into the future. That conformity demonstration must be made at least every four years, and triggers an update of the RTP.

These updates give the MRMPO the opportunity to evaluate past projections for growth and anticipated use of the system. During the plan update process, the MRMPO compares the existing land use, recent development trends, and the use of the different modal components of the transportation system. This new perspective permits the MRMPO to refine growth projections and their implications for travel.



Aside from such updates, the RTP is routinely amended. Most commonly it is amended to include local projects that are newly nominated to receive federal funding. If a local project were set to receive such funding, the MRMPO would consider amending the RTP to include that project.

For a local project to receive federal funding it must be in this Plan. For a project to move forward to completion it must be included in the MRMPO’s short-range funding programming document, the Transportation Improvement Program (TIP).

## **E. Development Process**

The MRMPO 2045 RTP was developed through a collaboration of local governments, ODOT, citizens, and stakeholders, as well as special interest groups in the Grants Pass Urbanized Area. The Plan was adopted in March 2020.

The first step in the plan development process was establishing a vision and goals for the future transportation system of the Planning Area. Next, the existing conditions of the Middle Rogue MPO area transportation system were inventoried. The lists of projects and policies recommended in this plan are within the framework of the Plan Implementation contained in Chapter 6 and the Vision and Goals contained in Chapter 2.

The development of the Plan involved three cohesive and integrated tracks: a public participation and input process, technical analyses, and directives from the MRMPO Policy Committee.

The role of the public and the agency's efforts to engage the public in the development of the Plan are described in Chapter 3 – Public Involvement.

The technical track involved the work of the MRMPO's Technical Advisory Committee, comprised of public works and transportation staff of the member jurisdictions, staff of the MRMPO and ODOT.

The resulting technical work was prepared for review by the public and elected officials. Additionally, the technical track also retained applicable data analyses and modeling forecasts completed by ODOT's Transportation Planning Analysis Unit (TPAU).

Finally, the MRMPO Policy Committee steered the development of the Plan at the policy level. According to federal rules, the adoption of the Plan by the MRMPO Policy Committee constitutes the approval of a Transportation Plan for the MRMPO Planning Area.

## **F. Document Structure**

This introduction forms Chapter 1 of the document and Chapter 2 states the Plan's Vision and Goals. Chapter 3 provides detail on the public involvement process. Chapters 4 and 5 describe the Planning Area and the elements of the existing transportation system in the area. Chapter 6 presents how the plan will be implemented. Chapter 7 considers sustainability within the transportation sector, and Chapter 8 includes the Financial Plan for the MRMPO. Chapters 9 thru 11 include evaluation and system performance regarding air quality conformity and environmental considerations. Chapter 12 includes information about safety, such as a crash analysis and a discussion about security issues.

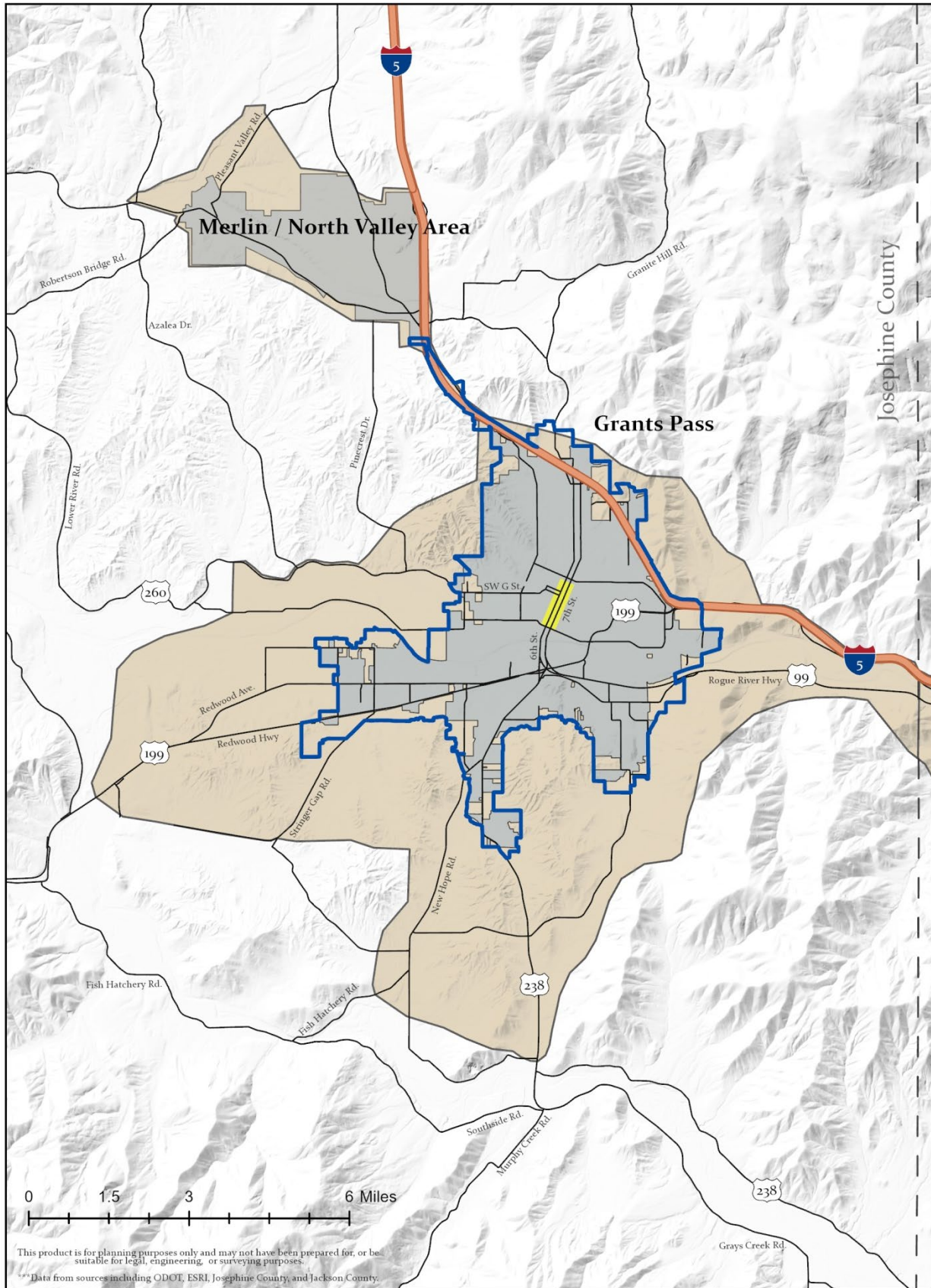
The appendices of the plan follow the main body of the document. Maps have been inserted at the end of each applicable chapter.

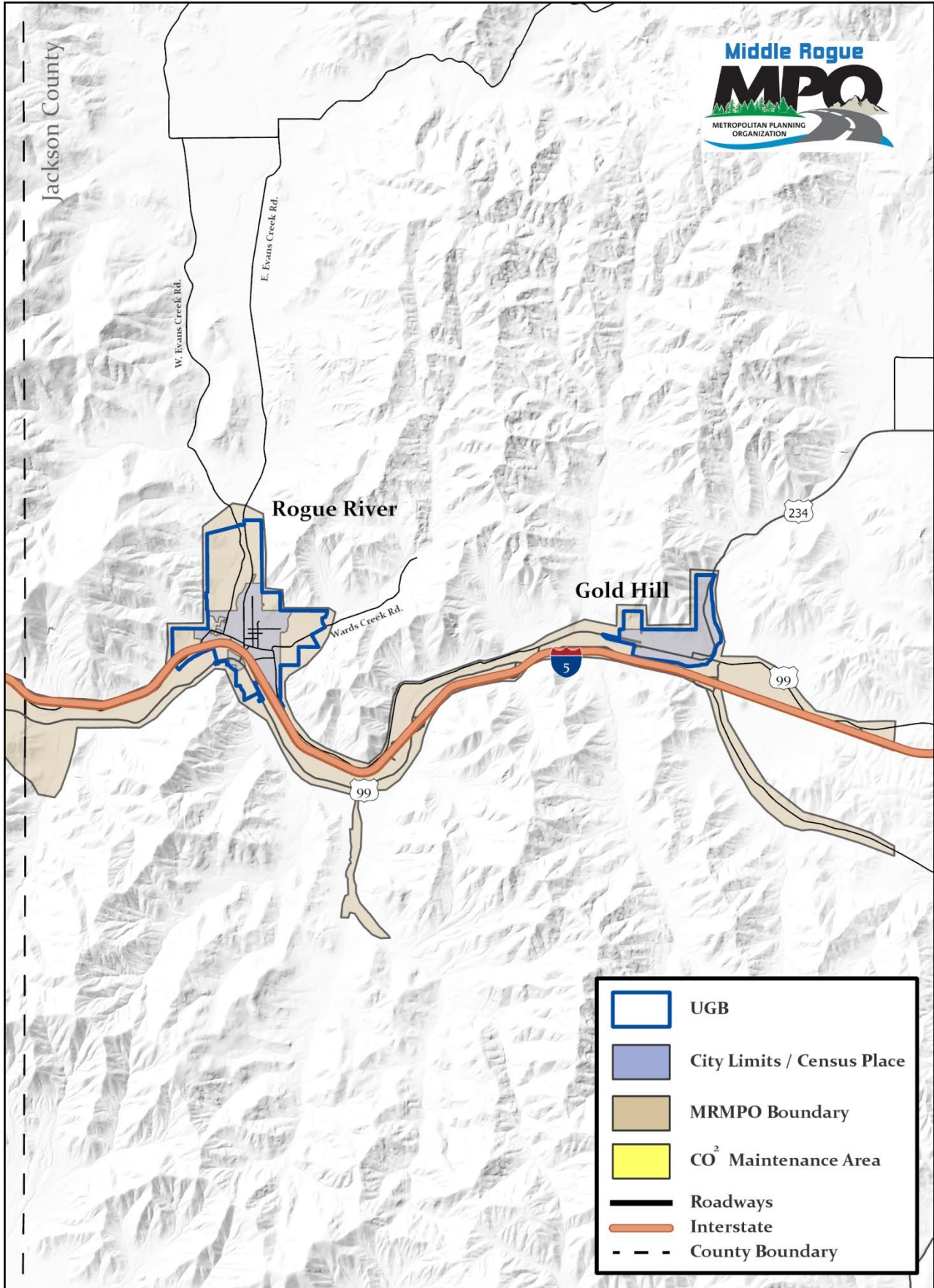
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**Map 1-1 – MRMPO Planning Area**





## Chapter 2 - Vision and Goals

The vision and goals chapter of the Regional Transportation Plan (RTP) provide the policy framework that guides development of the plan itself as well as subsequent decisions about system management, and project selection and implementation. The goals provide criteria to evaluate how well the plan reflects the values expressed by the community. The 2045 RTP includes the goals, policies, strategies, and performance measures established to address national and state requirements, and regional/local issues as outlined below.

- The goals are intended to guide future transportation decisions in the region.
- The policies are established to help the region move closer to the intended goals.
- The strategies state how the Metropolitan Planning Organization (MPO) will achieve the polices, and
- The performance measures are established to evaluate how the MPO is achieving its stated goals.

### A. Vision

The vision of the Transportation Plan was developed based on the most common elements of the visions described in the area's transportation and land use plans. The draft vision was reviewed and modified by the general public, the Technical Advisory Committee (TAC), and the Policy Committee. Through these processes the Policy Committee adopted the following vision for the Transportation Plan:



*“An intermodal transportation system that provides for safe, efficient, and convenient movement of people and goods to support a robust and burgeoning regional economy.”*

### B. Goals

The goals of the Transportation Plan were developed based on a review of the goals found in the area's transportation plans and in conformance with the above vision and the regulations set out in the Middle Rogue Metropolitan Planning Organizations' (MRMPO) adopted Title VI Plan. The TAC reviewed and commented on the goals, and in accordance with their recommendations, the Policy Committee adopted the following goals for the Transportation Plan:

**Table 3-1: RTP Goals**

<b>1</b>	Cultivate, maintain and enhance the region’s economic vitality.
<b>2</b>	Increase the safety and security of the region's transportation system.
<b>3</b>	Increase and maintain accessibility and mobility choices in the region.
<b>4</b>	Protect, preserve, and enhance the social, historical, and natural environments of the region.
<b>5</b>	Utilize the best available technology for the MRMPO to maximum system effectiveness.
<b>6</b>	Emphasize maintenance and preservation of the existing transportation system.

**C. FAST Act**

The Fix America’s Surface Transportation Act of 2015 is the current national transportation law that provides the guiding principles for transportation decision-making in metropolitan areas throughout the U.S. The FAST Act sets forth ten planning factors to guide transportation decisions. Table 3–2 provides a summary of how the six RTP Goals address the ten federal planning factors.

**Table 3–2: FAST Act Planning Factor Correlation**

<b>FAST Act Planning Factors</b>	<b>Relates to Goal Number</b>
<b>Safety</b> - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.	<b>2</b>
<b>Infrastructure Condition</b> - To maintain the highway infrastructure asset system in a state of good repair.	<b>7</b>
<b>Congestion Reduction</b> - To achieve a significant reduction in congestion on the National Highway System	<b>3, 5</b>
<b>System Reliability</b> - To improve the efficiency of the surface transportation system.	<b>5, 6</b>
<b>Freight Movement and Economic Vitality</b> - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.	<b>1,6</b>
<b>Environmental Sustainability</b> - To enhance the performance of the transportation system while protecting and enhancing the natural environment.	<b>4, 5</b>
<b>Reduced Project Delivery Delays</b> - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.	<b>5</b>

**GOAL 1: Develop and implement an economic regional plan that will cultivate, maintain and enhance the region’s economic vitality.**

**Objectives:**

- G1 - 01** Encourage the coordination of land use and transportation planning to ensure that developments are adequately connected by the region's transportation system and appropriately located to preserve the quality of life in surrounding areas.
  
- G1 - 02** Encourage transportation investments and policies that facilitate sustainable business growth and tourism growth in the region which are consistent with local and regional comprehensive plans.
  
- G1 - 03** Encourage economically strong regional activity centers with a mix of job, housing, services, and recreation in an intermodal environment.

**GOAL 2: Increase the safety and security of the region's transportation system.**

**Objectives:**

- G2 - 01** Strive to reduce transportation related crashes, injuries, and fatalities using current design standards, advanced technologies, and education.
  
- G2 - 02** Collaborate with first responders, transportation, and health agencies as they develop emergency and disaster plans and other security related plans for the region.
  
- G2 - 03** Encourage transportation investments and policies that result in a higher level of personal security for pedestrians, cyclists, motorists, and users of transit.

**GOAL 3: Increase and maintain accessibility and mobility choices in the region.**

**Policies:**

**Objectives:**

- G3 - 01** Improve transit effectiveness so that people can reach job sites and return home conveniently, so that employers can hire workers to work when needed (e.g., increase transit frequency).

- G3 - 02** Support a complete streets policy that promotes the use of alternative transportation modes including pedestrians, bicyclists, and transit users. Improvements could include new or improved sidewalks, bicycle routes or other accommodations, bus pullouts, and other facilities/improvements as part of future roadway construction/reconstruction and private development projects.
  
- G3 - 03** Support local incentives to promote transit as a commuting option, and to encourage Transit Oriented Development (TOD).
  
- G3 - 04** Encourage public transportation services – such as commuter services, park and ride lots, ridesharing, and carpooling programs – which help reduce the number of single occupancy vehicle trips within the region.

**GOAL 4: Protect, preserve, and enhance the social, historical, and natural environments of the region.**

**Objectives:**

- G4 – 01** Pursue transportation projects and other transportation related technologies that result in positive benefits to improved air quality and energy efficiency.
  
- G4 – 02** Encourage transportation investments that reduce greenhouse gases, and other emissions, and support the reduction of single occupancy vehicle trips.
  
- G4 – 03** Ensure that transportation decisions in the region are made with full consideration of the requirements of Title VI and Environmental Justice provisions.
  
- G4 – 04** Encourage transportation investments that support sustainable development, enhance quality of life, and promote healthy communities.

**GOAL 5: Identify, develop and implement the best available technology for the MRMPO to utilize for maximize system effectiveness.**

**Objectives:**

- G5 - 01** Encourage the use of Transportation Demand Management (TDM) principles to mitigate capacity deficiencies on congested roadways and at intersections.
- G5 - 02** Promote the installation of Park & Ride facilities where appropriate
- G5 – 03** Promote Traffic Calming Techniques. Traffic Calming refers to various design features and strategies intended to reduce vehicle traffic speeds and volumes on a particular roadway.
- G5 – 04** Consider the use of transportation technology in all projects to maximize effectiveness and safety.
- G5 – 05** Encourage greater use and acceptance of access management policies and devices (e.g. medians, turn restrictions, combined entrances) to maintain adequate transportation system capacity coordination between roadway design and land use and to enhance safety for the traveling public.

**GOAL 6: Emphasize maintenance and preservation of the existing transportation system.**

**Policies:**

- G6 – 01** Prioritize investment to preserve the existing transportation system including all modes.
- G6 – 02** Encourage the efficient and safe movement of people, goods, and information with minimal adverse impacts on residents and the environment

# Chapter 3 - Public Involvement

The Middle Rogue Metropolitan Planning Organization and its public officials highly value citizen participation in public decision-making processes. The MRMPO Policy Committee adopted a Public Participation Plan in November 2018 which outlines the methods, strategies, and desired outcomes for public involvement regarding the Regional Transportation Plan (RTP):

*“Updated every four years, the RTP is a long-range (20-year) plan that contains the region’s goals and policies, projects, funding forecasts, strategies, and projected demands on the transportation system. The Technical Advisory Committee (TAC) discussed the plan update over several meetings. The MRMPO hosted a virtual open house session, a 30-day comment period and public hearing. Comments received will be responded to and included in the final document.*

*The draft RTP, and other research, as needed, is posted on the website and mailed to interested parties. Open house meetings are advertised in the newspaper, on the website and by mailing to individuals and organizations on transportation mail lists.*

## A. Continuous Outreach

Throughout the development of the Plan, members of the public were provided opportunities to comment at all meetings of the Policy Committee. All material (agendas, minutes of the meetings, draft documents, etc.) were made available on the MRMPO website.

## B. Community Outreach

In addition to the continuous outreach effort, special outreach and public involvement opportunities were structured into the process. These included virtual open houses and final public meetings.

### 1. Public Meetings

The MRMPO had scheduled and advertised a series of workshops and open houses in the month of March for public outreach and participation. However, due to national health pandemic (COVID-19) these public meetings had to be canceled. In its place, MRMPO staff created a virtual open house to allow for public comment and participation. The virtual open house was posted on the MRMPO website.

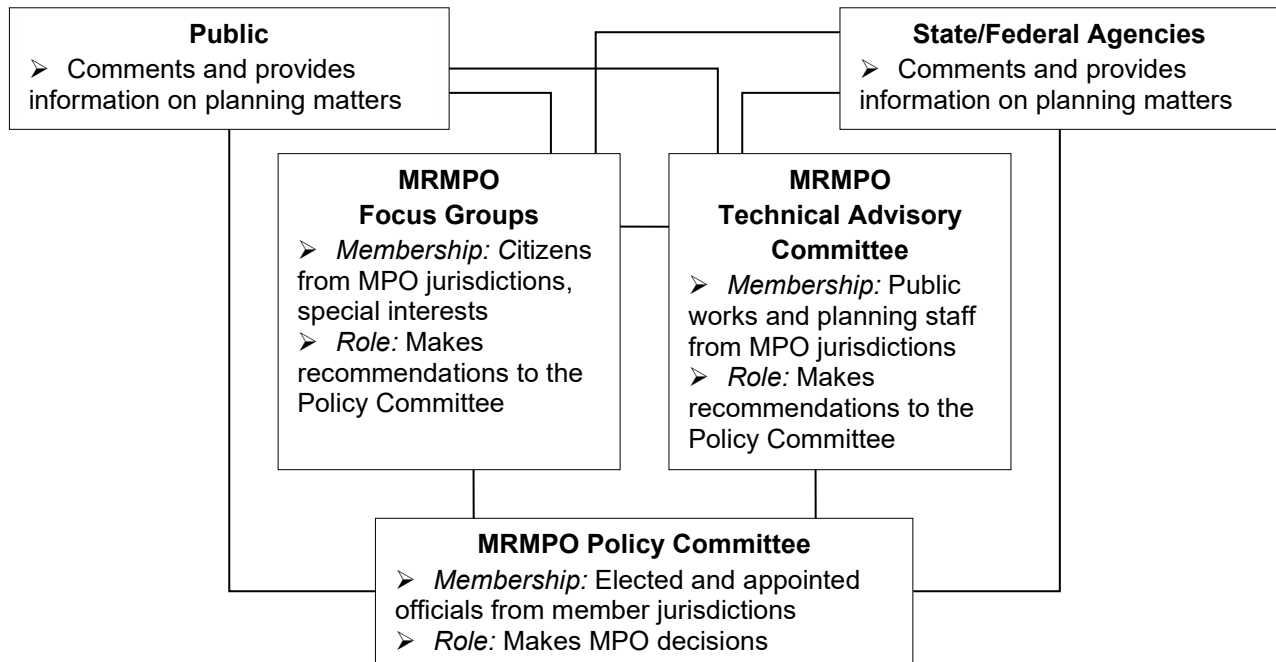
### 2. Public Hearing

The MRMPO Policy Board held a public hearing on March 30, 2020 to receive public testimonies prior to deliberations on the RTP. A summary of written comments was provided to the Policy Committee. The public was also informed about the adoption schedule of the Transportation Plan.



The MRMPO organizational structure chart below, illustrates how the public may participate in decision-making.

**Figure 3-1 MRMPO Organizational Structure**



### C. RTP Planning Process

Development of this RTP update occurred over a two-year period and involved close coordination with member jurisdictions at both the staff and policy level. Critical parts of the plan, including the forecasts, policy statements, and project selection were developed in MRMPO TAC meetings, individual consultation with jurisdictions and public review, and comment. Drafts of data and analysis were posted on the MRMPO web site. Meetings at which plan components were discussed were announced by email. Meetings also were advertised from time to time in the local news media. Activities were conducted according to standards and requirements of the MRMPO Public Participation Plan. The participation plan, adopted in 2014 updated in 2018, establishes goals to provide citizens and interested parties with reasonable opportunities to participate in the metropolitan transportation planning process. Beyond efforts to provide information to the public, this goal encompasses a wide range of strategies and activities to enable the public to be involved in a meaningful way in the MRMPO’s decision-making process. Ultimately, efforts to bring more voices and wide-ranging interests to the table will yield better planning results.

# Chapter 4 - Planning Area Characteristics

This section provides information on the political and physical characteristics of the Planning Area, as well as area demographics, employment characteristics, commute patterns, and forecasting future conditions.

## A. Political and Physical Characteristics

The Middle Rogue Planning Area is located in the Rogue Valley of southwestern Oregon. The Planning Area covers just under 65 square miles (41,398 acres) extending from Grants Pass eastward to Gold Hill. The cities of Gold Hill, Grants Pass, and Rogue River are wholly within the Planning Area, as well the parts of Jackson and Josephine counties that are anticipated to urbanize over the next 20 years.

The arterial and collector roadways subject to this plan are under the jurisdiction of Jackson and Josephine counties, the three cities, and the Oregon Department of Transportation (ODOT). Major state highway facilities located within the Planning Area include Interstate 5 (I-5), Sams Valley Highway (OR 234), Redwood Highway (OR199), Jacksonville Highway (OR 238), and Rogue River Highway (OR 99). In Chapter 1, Figure 1-1 depicts the Planning Area.

Topography varies from predominantly level areas near the Rogue River and the Merlin area to rolling foothills surrounding the valley. The Rogue River is the most prominent water feature in the area. Floodplains and numerous wetlands are located near the river and its tributaries.

### 1. Land Use and Zoning

The understanding of interactions between land use and transportation is critical to transportation and land use planning. Location of human activities and lay of land determine travel patterns, traffic volumes and the need for transportation facilities, while transportation infrastructure influences land use patterns.

*“Location of human activities and lay of land determine travel patterns, traffic volumes and the need for transportation facilities, while transportation infrastructure influences land use patterns.”*

The central areas of Grants Pass, Gold Hill and Rogue River are characterized by compact grid street patterns, while much of the remainder of the Planning Area is less dense and features a more random street pattern, adapting to terrain. Land designated for industrial use in Grants Pass is concentrated in the eastern part of town along the railroad corridor. Other areas of industrial land are between Interstate 5 and Merlin, an unincorporated rural community.

Commercial zones in the area follow major roadway corridors in addition to concentrations in downtown Grants Pass, Gold Hill, and Rogue River. Public land includes parks and surrounding Bureau of Land Management (BLM) and Forest Service lands. Much of the Planning Area is zoned as residential with farm and forest zones at the fringe.

## City of Grants Pass

The City of Grants Pass is the primary commercial center of the Planning Area and contains more than two-thirds of the population. The most notable commercial areas of the city include the downtown central business district (CBD), 6<sup>th</sup> and 7<sup>th</sup> Streets, Hwy 99, Highway 238, Hwy 199, and Redwood Avenue. Development in the Grants Pass CBD is relatively compact and includes a mixture of commercial uses. The street system in the downtown area is a grid pattern and includes two sets of one-way streets (6<sup>th</sup> Street southbound and 7<sup>th</sup> Street northbound; E Street westbound and F Street eastbound). Both sets of facilities include pedestrian and bicycle improvements, although the bike lane on 6<sup>th</sup> Street is diverted to 4<sup>th</sup> Street from A Street to Bridge Street. The Grants Pass Comprehensive Plan identifies neighborhood centers, which are located throughout the city, primarily along major arterials and collectors.

*“The cities of Gold Hill, Grants Pass, and Rogue River are wholly within the Planning Area, as well the parts of Jackson and Josephine counties that are anticipated to urbanize over the next 20 years.”*

Much of the industrial land in Grants Pass is located in the eastern portion of the city. Higher-density residential areas are generally east of the CBD north of the river, and in portions of the Fruitdale and Redwood districts. Lower-density residential areas are in the northern and western parts of the city.

## City of Rogue River

The City of Rogue River is approximately seven miles east of Grants Pass and is bisected by Interstate 5 and the Rogue River. The city center immediately north of the freeway includes a mix of retail and service commercial uses. Other commercial and employment uses are south of the river, with the largest industrial area at the southern edge of the city, located between the freeway and North River Road. Multiple – family housing surrounds the downtown with single-family dwellings filling the remaining areas.

## City of Gold Hill

Gold Hill is located near the eastern boundary of the Planning Area. Except for small pockets of multi-family housing, it is primarily a single-family residential community. Most commercial and employment uses are concentrated along Second Avenue, which is also a state highway.

A private rail crossing provides access to the largest industrially zoned area, located near the west edge of the city. This access reduces options for use of the property. The railroad runs the width of the city; two public crossings at Gustav Street and Highway 234 provide the only public street connections between the northern and southern portions of the city.

The Rogue River forms the southern and eastern boundaries of the city. Bridges at the east edge and farther to the west connect to Interstate 5.

## Unincorporated Josephine County

The unincorporated portions of Josephine County include a mix of residential, farming, and forest uses with rural residential uses dominating the non-urban areas south of the river. The community of Murphy straddles the Applegate River at the south edge of the Planning Area. Most of the agricultural land in the Planning Area is west of Grants Pass and the largest farms are north of the river. The higher elevations surrounding the valley are zoned for forest use.

Several residential areas in the unincorporated portions of the county lie adjacent to the City of Grants Pass. Large portions of these intensely developed areas near Redwood Avenue, Upper River Road, and Demaray Drive are within the city's Urban Growth Boundary. Merlin-North Valley

Unincorporated Rural Community connects to the Planning Area via Interstate 5. It includes the North Valley Industrial Park, the Grants Pass Airport, the Rendata Industrial area and the Merlin townsite.



## Unincorporated Jackson County

The unincorporated portions of Jackson County represent a relatively small portion of the Planning Area. These areas are dominated by small residential lots along the river and small farms at the upland, open areas. At the intersection of Rogue River Highway and Foothills Road is a small cluster of commercial structures that comprise the Foothills Rural Service Center.

### 2. Schools and Parks

Community focal points, such as schools and parks, are important to understanding travel patterns. These facilities attract pedestrians, bicyclists, transit users, and drivers and have specific transportation needs (e.g., pedestrian safety around schools). Awareness of the location of these facilities is important to planning for an effective regional transportation system.

#### Schools

Trips to and from school by students and teachers – via bus, walking, bicycling, or driving – affect transportation patterns and transportation infrastructure planning and design. Schools also attract people outside of school hours for sports, extracurricular events, and community events held at school facilities.

*“Community focal points, such as schools and parks, are important to understanding travel patterns...Awareness of the location of these facilities is important to planning for an effective regional transportation system.”*

There are 27 public and private schools, including Rogue Community College, within the study area. Thirteen of the schools are inside the Grants Pass city limits, including nine elementary schools, two middle schools, and one high school, in addition to a K-12 private school. Other schools in Josephine County outside of the Grants Pass city limits include four elementary schools, two middle schools,

one high school, and one K-12 private school. One elementary school and a junior/high-school are in Rogue River; one elementary school and one middle school are in Gold Hill.

See Map 4-2, *Public Schools and Parks*, at the end of this chapter for a visual depiction of school locations.

**Table 4-1: Public Schools by Jurisdiction**

Jurisdiction within Planning Area	Elementary Schools	Middle Schools	High Schools
City of Grants Pass	9	2	1
City of Rogue River	1	1	1
City of Gold Hill	1	1	0
Unincorporated Josephine County	4	2	1

### **Rogue Community College (RCC)**

Grants Pass is home to the Rogue Community College Redwood campus, which is located just west of downtown along Hwy 199. The campus encompasses approximately 84 acres, including 30 campus buildings with over 200,000 square feet of building space. The campus provides parking for approximately 846 vehicles and has three designated bicycle parking areas.

### **Parks and Recreational Areas**

Parks are important to the transportation system because they are popular destinations for residents and visitors. Parks sometimes need special transportation attention to serve particular park users, such as children.

Not counting sites set aside for future park use, there are 37 existing parks and open space areas in the Planning Area that cover more than 1,246 acres. In Grants Pass, Riverside Park and the Reinhart Volunteer Park are heavily used parks with a regional draw. Most parks are managed by Josephine County or the cities where they are located, with several exceptions. The Josephine County Fairgrounds in Grants Pass are managed by the County. Cathedral Hills Park is adjacent to Grants Pass, listed as a park by Josephine County, but is managed by the Bureau of Land Management. Valley of the Rogue Park is the only state park in the Planning Area. Map 4-3 located at the end of this chapter displays parks within the MPO region.

## **B. Demographics**

Population trends are a key factor affecting the volume of travel in the region. In addition, where and how people live greatly determines which transportation facilities and modes get used most and which warrant the greatest investment of transportation funding. The following pages contain general demographic characteristics for the Planning Area based on the 2010 US Census, the Oregon Household Activity Survey and the most recent American Community Survey (ACS) data. Where appropriate, the characteristics are compared to statewide or countywide data.

*Data Notes: Beginning with the 2010 U.S. Census, the decennial census no longer collects the same extent of socio-economic information; the American Community Survey now does. For those tables containing ACS data, it is important to note that estimates are based on a sample of the population using five-year averages rather than a count at one point in time, such as the decennial census. Additionally, please keep in mind that there is a margin of error (MOE) associated with every estimate in this section, although not individually noted. An MOE is an indicator of the reliability of the data estimates by proving a range where the true value of the estimate most likely falls. For example, a 20% poverty rate could have a (+/- 2%) MOE, meaning that the poverty rate is actually likely between 18-22%. For smaller communities such as Gold Hill or Rogue River, MOEs for ACS data estimates are generally larger due to the smaller sample sizes.*

The Census Bureau defines two types of urban areas:

- *Urbanized Areas* (UAs) of 50,000 or more people;
- *Urban Clusters* (UCs) of at least 2,500 and less than 50,000 people.

In the 2000 Census, the Grants Pass urban area was an *Urban Cluster* with a population of 43,811. In the 2010 US Census, the Grants Pass urban areas became an *Urbanized Area* with a population of 50,520. In federal transportation law, this is the threshold for establishing an MPO. As of 2018 according to Portland State University the population of the MRMPO planning area is identified in table 4.2 below.

Table 4.2: Population for MRMPO

<b>Member Jurisdictions</b>	<b>2018 Population</b>
Gold Hill*	1,220
Grants Pass*	37,285
Jackson County**	2,916
Josephine County***	16,355
Rogue River*	2,245
<i>Total</i>	<b>60,021</b>

Table 4-3 below shows the estimated **number of households** for the MPO Planning Area and each MPO jurisdiction and unincorporated place based on numbers from the 2010 U.S. Census.

**Table 4-3: Households**

Jurisdiction	# of Households	Avg Household Size
Grants Pass Urbanized Area	21,226	2.32
Grants Pass	15,023	2.38
Rogue River	1,150	2.16
Gold Hill	516	2.59
Merlin, Census Designated Place	654	2.43

Source: 2013-2017 ACS 5-Year Estimates Table DP02: Selected Social Characteristics in the United States

The **median age** of 42.2 for residents of the Planning Area is higher than the statewide median of 39.2 years. The City of Grants Pass has the lowest median age in the Planning Area at 38.2, while the rural community of Merlin is highest at 54.3.

The Planning Area has a relatively high percentage of **senior residents (age 65+)** compared to the statewide average of 16.3%. A large degree of variation exists in the area, however. For example, in Rogue River 25.7% of the population is age 65 years or older while the estimate for neighboring Gold Hill is almost half of that, at 13.9%.

**Table 4.4: Median Age and Senior Population**

Jurisdiction	Median Age	Population Age 65+
Oregon	39.2	16.30%
Grants Pass Urbanized Area	42.2	21.40%
Josephine County	47.6	24.90%
Jackson County	43	20.50%
City of Grants Pass	38.2	19.80%
City of Rogue River	46.1	25.70%
City of Gold Hill	39.2	13.90%
Merlin	54.3	21%

Source: 2013-2017 ACS 5-Year Est. Table S0101

In the Planning Area, 86.1% of residents identified themselves as **“White alone”** in their choice of race and ethnicity during the 2010 U.S. Census. In choice of ethnicity, 8.1% of the Planning Area population identified as **“Hispanic or Latino”**. For a statewide comparison, 76.5% of Oregon residents identified themselves as White alone, with 12.7% of the state’s population identifying as Hispanic or Latino.

Jurisdiction	White Alone Population (Not Hispanic or Latino)	Those Who Identify as Hispanic or Latino
Oregon	76.50%	12.70%
Grants Pass Urbanized Area	86.10%	8.10%
Josephine County	87.40%	7.10%
Jackson County	81.70%	12.20%
City of Grants Pass	84.70%	9.50%
City of Rogue River	89.30%	5.70%
City of Gold Hill	90.70%	3.30%
Merlin	92.80%	0%

2013-2017 ACS 5-Year Est Table DP05

Approximately 19% of Planning Area residents reported living below the **poverty level** in the past 12 months according to ACS data for 2013-2017. This is higher than the statewide average of 14.9%. The current percentage of the population living in poverty within Grants Pass is 20.2%, with Rogue River and Gold Hill at 18.7% and 16.6%, respectively.

Jurisdiction	Population Living Below the Poverty Level (Last 12 Months)
Oregon	14.90%
Grants Pass Urbanized Area	18.90%
Josephine County	18.60%
Jackson County	16.70%
City of Grants Pass	20.20%
City of Rogue River	18.70%
City of Gold Hill	16.60%
Merlin	15.50%

Source: 2013-2017 ACS 5-Year Est Table S1701

Approximately 89% of Planning Area residents aged 25 years or older are **high school graduates**, with 16% having obtained a **bachelor's degree or higher**. These numbers are similar for the City of Grants Pass. Statewide, the percent of high school graduates is just slightly higher at 90.2% and those that hold a bachelor's degree or higher being greater at 32.3%.

Jurisdiction	High School Graduate or Higher	Bachelor's Degree or Higher
Oregon	90.20%	32.30%
Grants Pass Urbanized Area	89.00%	16.00%
Josephine County	88.10%	18.50%
Jackson County	89.80%	27.20%
City of Grants Pass	88.70%	16.10%
City of Rogue River	89.70%	15.40%
City of Gold Hill	90.10%	21.10%
Merlin	95.70%	12.40%

2013-2017 ACS 5-Year Estimates Table S1501

Note: Population 25 years and older



The City of Grants Pass had the highest percentage (24.3%) of **households with a child less than 18 years old**. In Gold Hill, 22.6% of the households had a child younger than 18, compared to 20.8% of households in Rogue River, and 22.1% of all Planning Area households. The statewide percentage was 21.5%.

**Table 4.8: Households with a Child (less than 18 years)**

Jurisdiction	Percentage of Total Population
Oregon	21.50%
Grants Pass Urbanized Area	22.10%
Josephine County	19.60%
Jackson County	20.90%
City of Grants Pass	24.30%
City of Rogue River	20.80%
City of Gold Hill	22.60%
Merlin	11.30%

*Source: 2013-2017 ACS 5-Year Estimates Table S0101*

The percentage of **vacant housing units** is quite varied throughout the MRMPO planning area. The City of Grants Pass had 5.7% of housing units vacant, with Rogue River and Gold Hill at 9.4% and 6.5%, respectively.

In the state of Oregon, the percentage of **owner-occupied housing units** outnumber **renter-occupied housing units** by 61.7% to 38.3%, respectively. Similarly, but to a lesser degree, owner-occupied units also outnumber renter-occupied units in the MRMPO Planning Area, at 55.8% vs. 44.2%. The City of Gold Hill has the highest percentage of owner-occupied units at 74%, while the City of Grants Pass has almost half of all housing units (49.3%) being renter-occupied and just over half being owner-occupied (50.7%).

**Table 4.9: Housing Occupancy**

Jurisdiction	Owner-Occupied	Renter-Occupied	Vacant Units
Oregon	61.70%	38.30%	9.30%
Grants Pass Urbanized Area	55.80%	44.20%	6.20%
Josephine County	66.40%	33.60%	7.70%
Jackson County	62.90%	37.10%	8.00%
City of Grants Pass	50.70%	49.30%	5.70%
City of Rogue River	44.10%	55.90%	9.40%
City of Gold Hill	74.00%	26.00%	6.50%
Merlin	79.40%	20.60%	0.00%

*2013-2017 ACS 5-Year Estimates Table DP04*

Age of the housing stock varies throughout the MRMPO Planning Area.

**Table 4.10: Age of Housing Stock**

Grants Pass Urbanized Area	Percentage of Total Homes
Built 2014 or later	0.50%
Built 2010 to 2013	1.10%
Built 2000 to 2009	15.30%
Built 1990 to 1999	16.60%
Built 1980 to 1989	13.70%
Built 1970 to 1979	19.60%
Built 1960 to 1969	7.90%
Built 1950 to 1959	11.10%
Built 1940 to 1949	7.70%
Built 1939 or earlier	6.50%

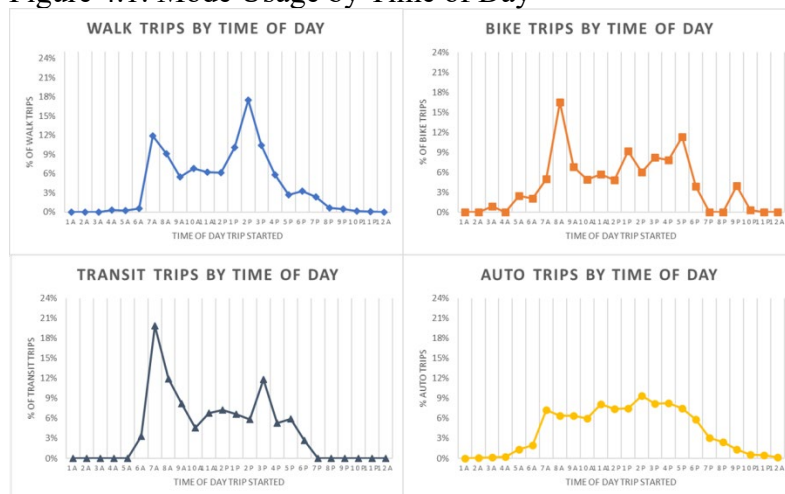
Source: 2013-2017 ACS 5-Year Estimates Table DP04

### C. Commute Patterns

Commute characteristics and patterns help determine where transportation system needs exist. Many of the MRMPO Planning Area residents commute to the Medford area for work, as well as traveling to the area for shopping and services. It is also important to note that many residents of outlying rural areas travel to the Grants Pass area for work, shopping, and services. Interstate 5, Hwy 99, Hwy 199, and Hwy 238 are all important commuter routes.

The following tables and charts come from the Oregon Household Activity Survey conducted in the Rogue Valley in 2011. Some interesting characteristics were identified from the data that was collected. While peak hour travel was similar for all modes age of the traveler had a significant impact on time of day travel. Figure 4.1, below is a series of charts showing travel time behavior by mode.

Figure 4.1: Mode Usage by Time of Day

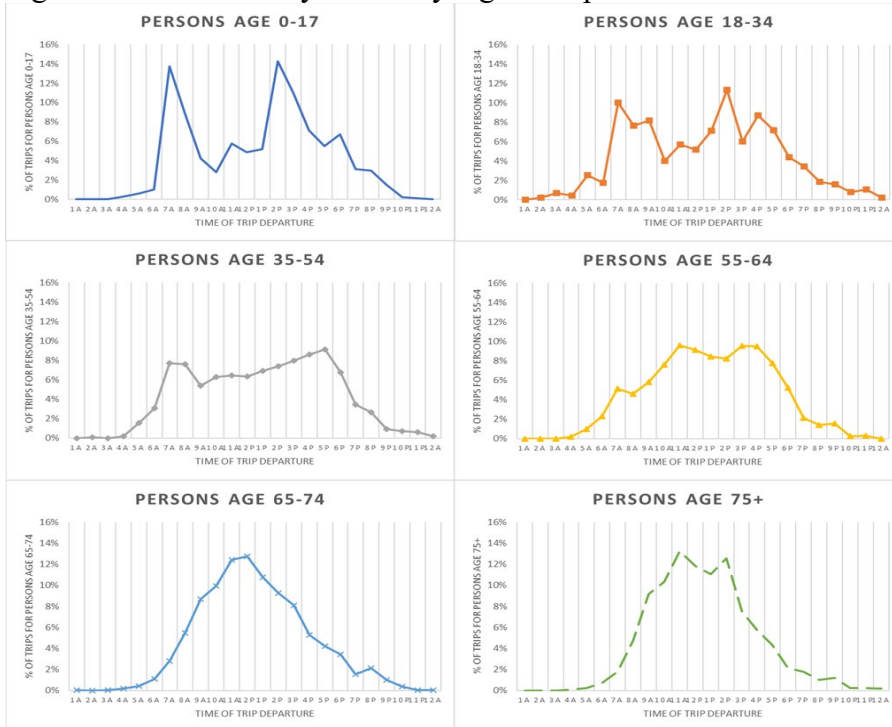


Oregon Household Activity Survey Fig. 6-11

While the percent of trips per time of day are different for each mode there is a common AM peak period and a similar pattern in the afternoon.

In figure 4.2 below you will note that travel behavior by age cohort is similar for the first three cohorts from ages 0-17 years old to the age cohort 35 – 54 years of age. However a marked change is obvious beginning with the age cohort 55-64 years of age. For these ages, trips are beginning to focus more around the middle of the day and, indeed, by the final age cohort, age 75 and above this is the timeframe for the highest travel activity.

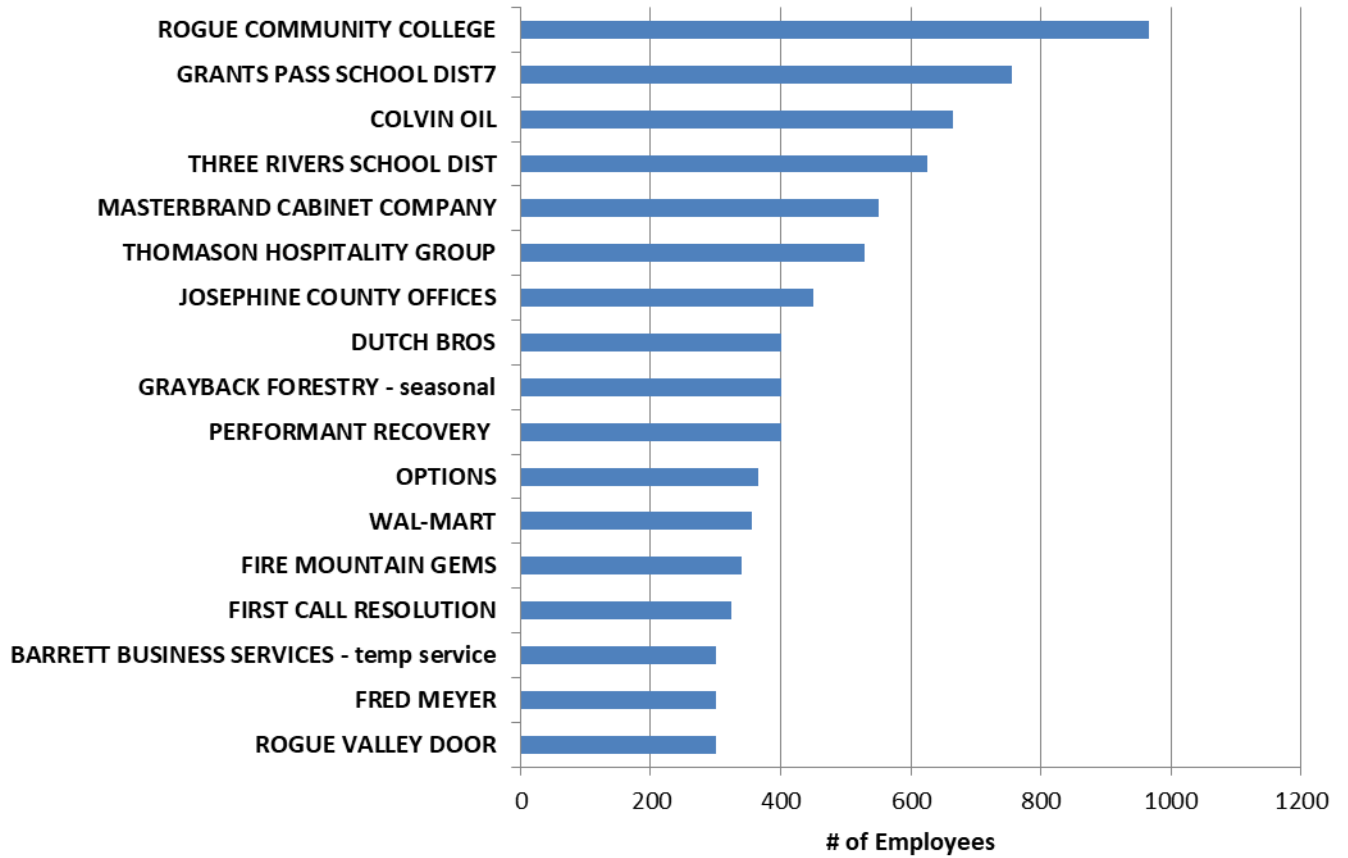
Figure 4.2: Time of Day Travel by Age Group



Oregon Household Activity Survey Fig. 6-12

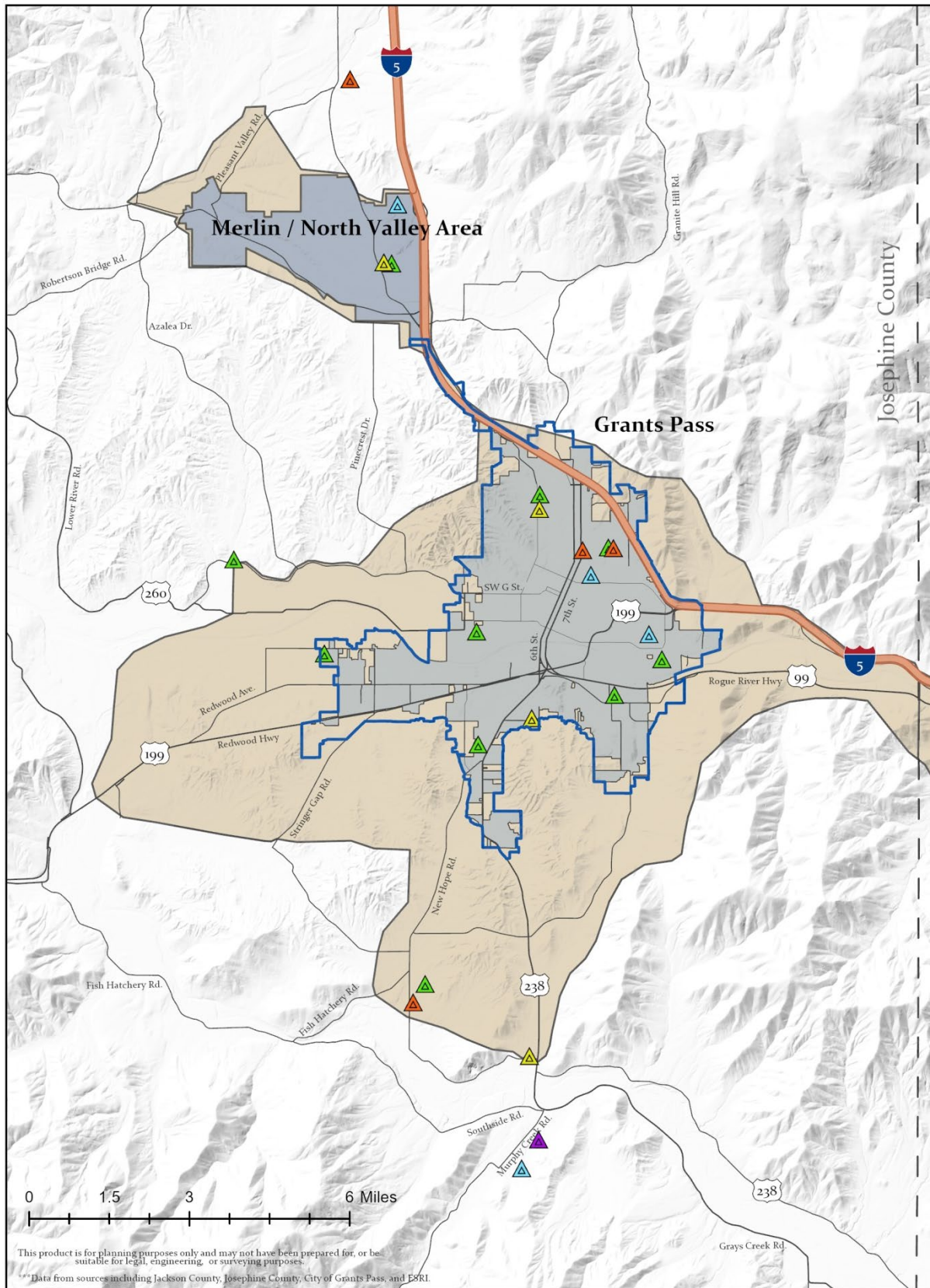
The location of **major employers** helps to identify commuter travel patterns, including heavily used corridors and peak-hour transportation needs. Major employers ( $\geq 300$  employees) within the Planning Area are shown on Figure 4-3, below, and on Map 4-4.

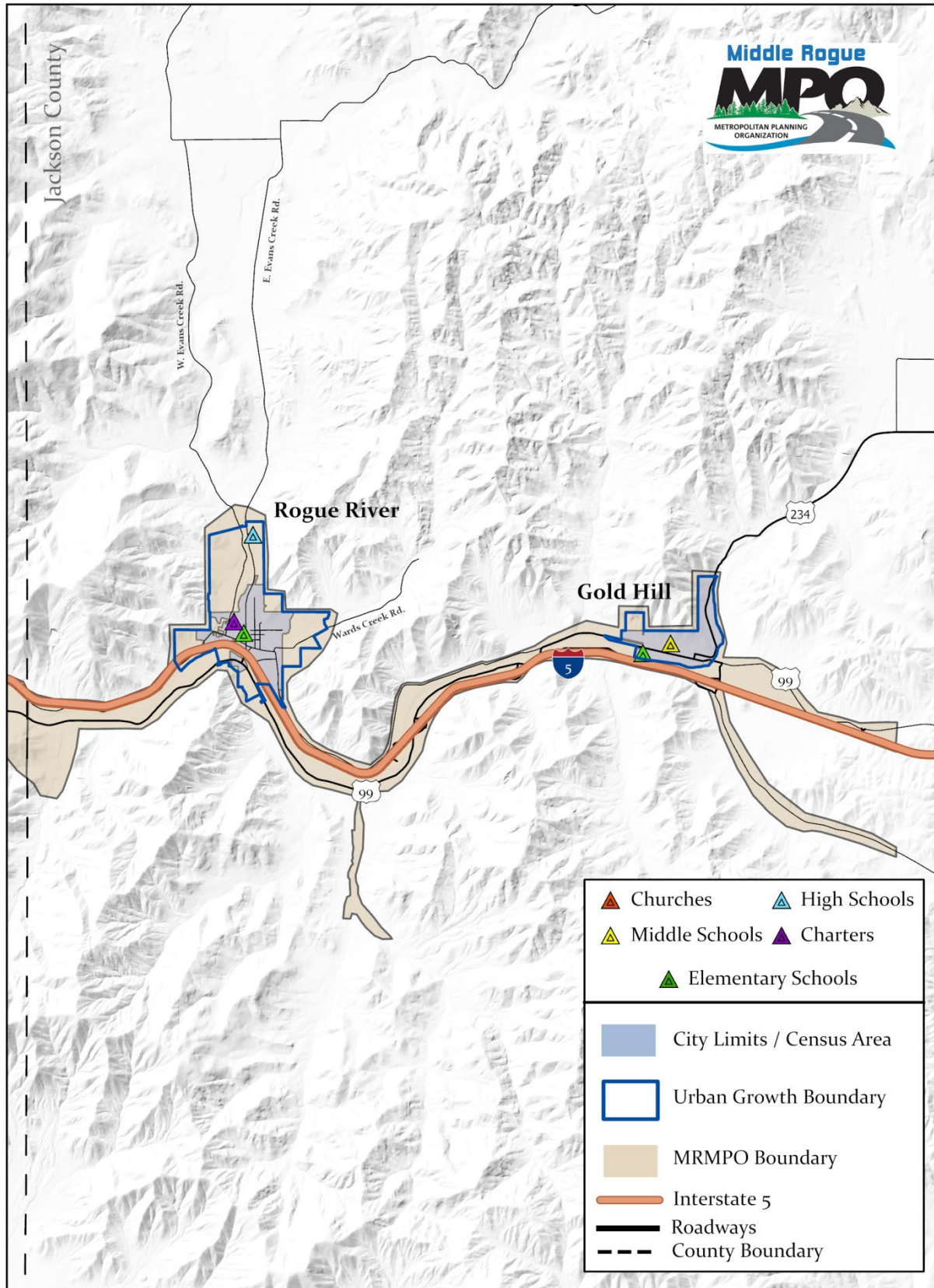
### Figure 4.3 Major Employers (≥ 300 employees)



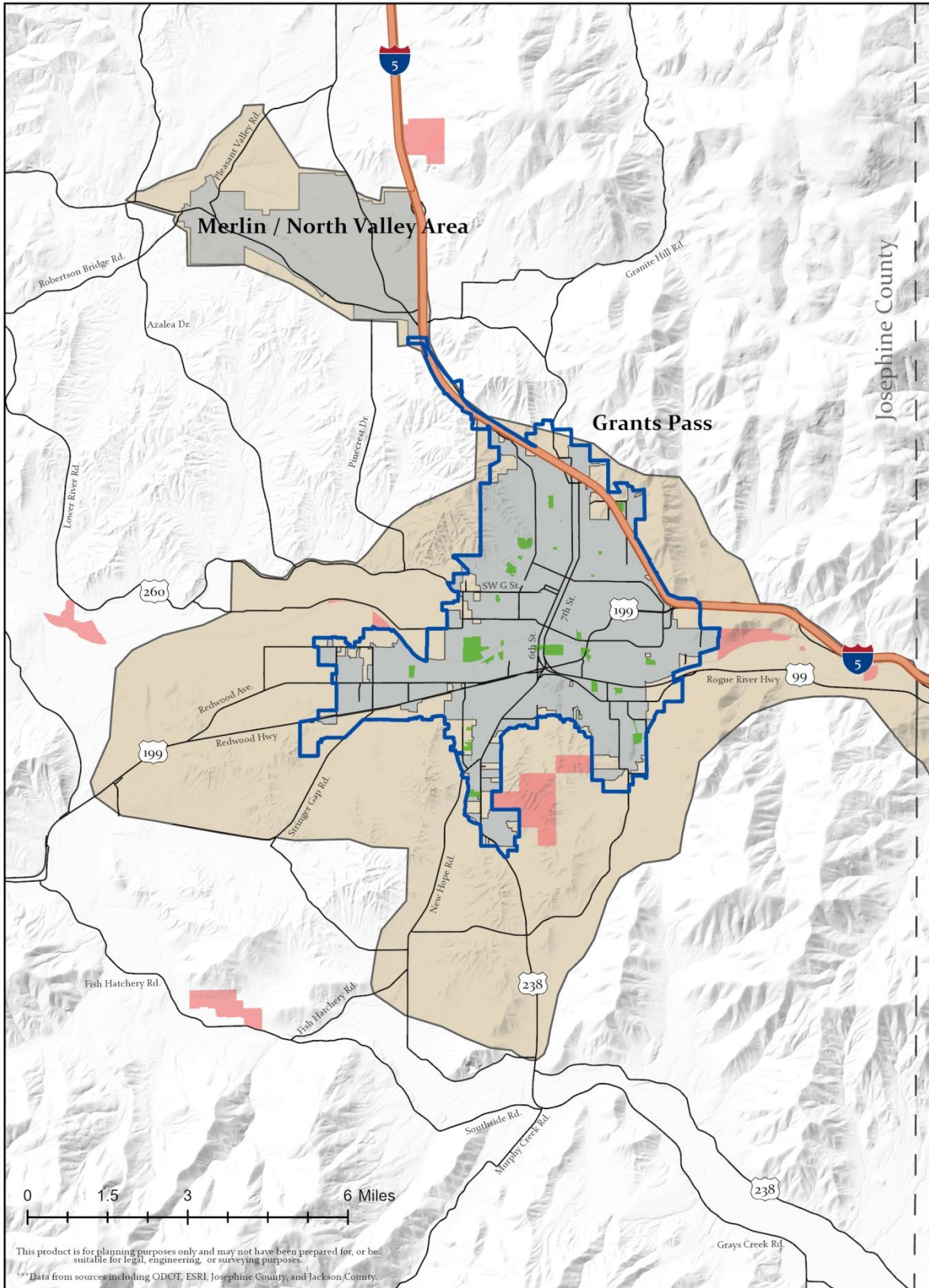
\*School district office located within MRMPO boundary, but not all schools lie within boundary.

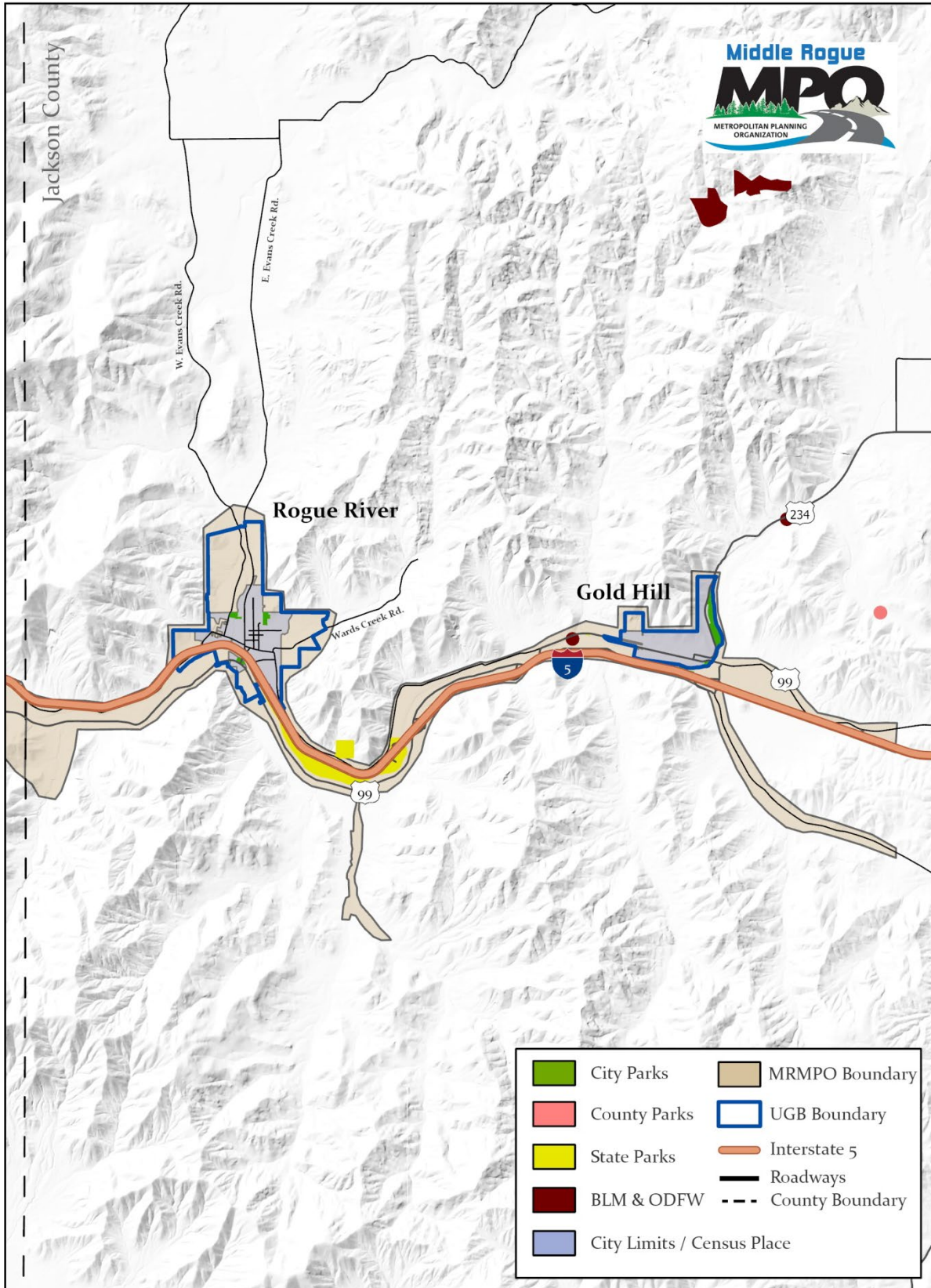
**Map 4-2 – Public Schools**





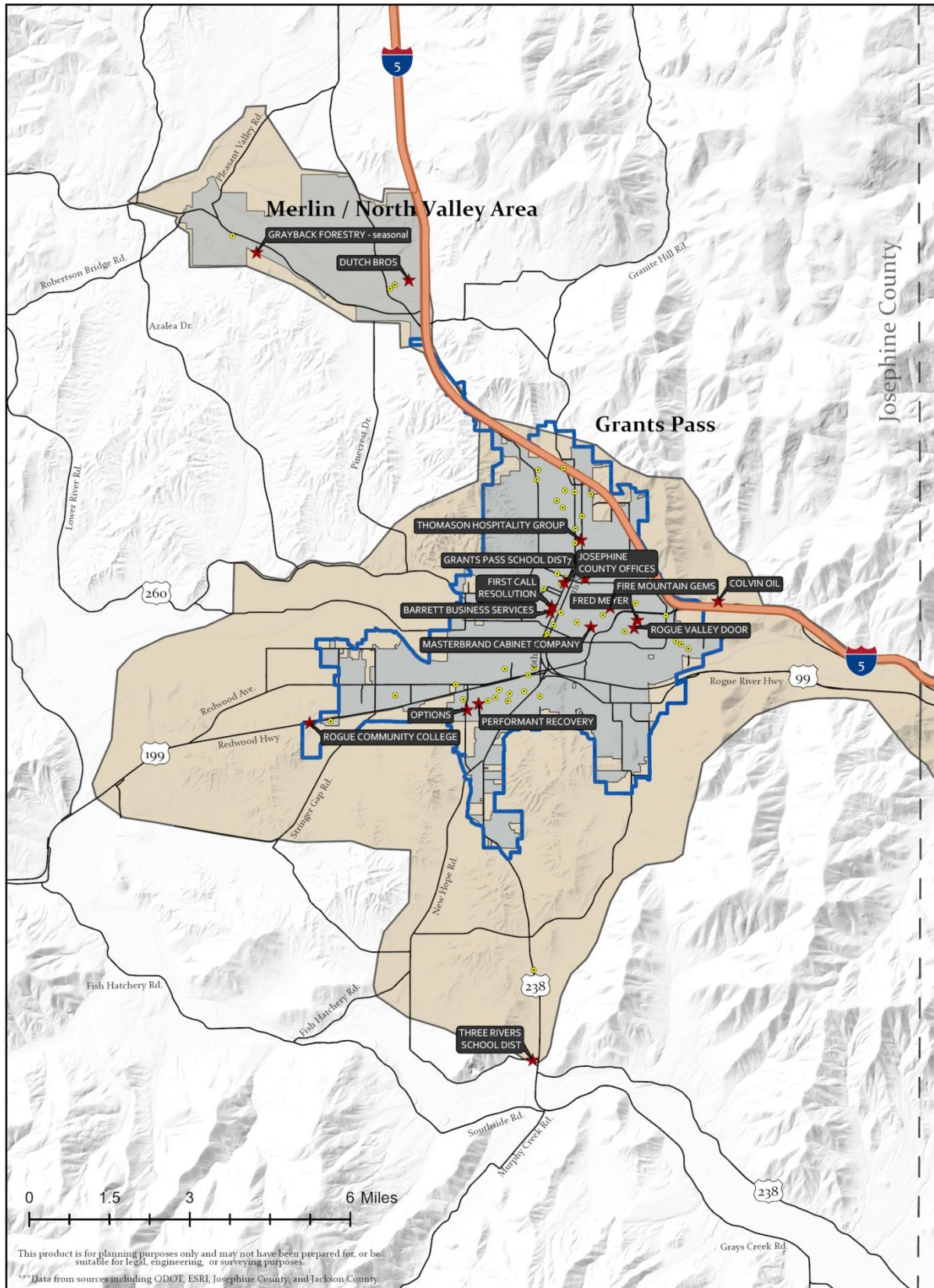
# Map 4-3 – Public Parks

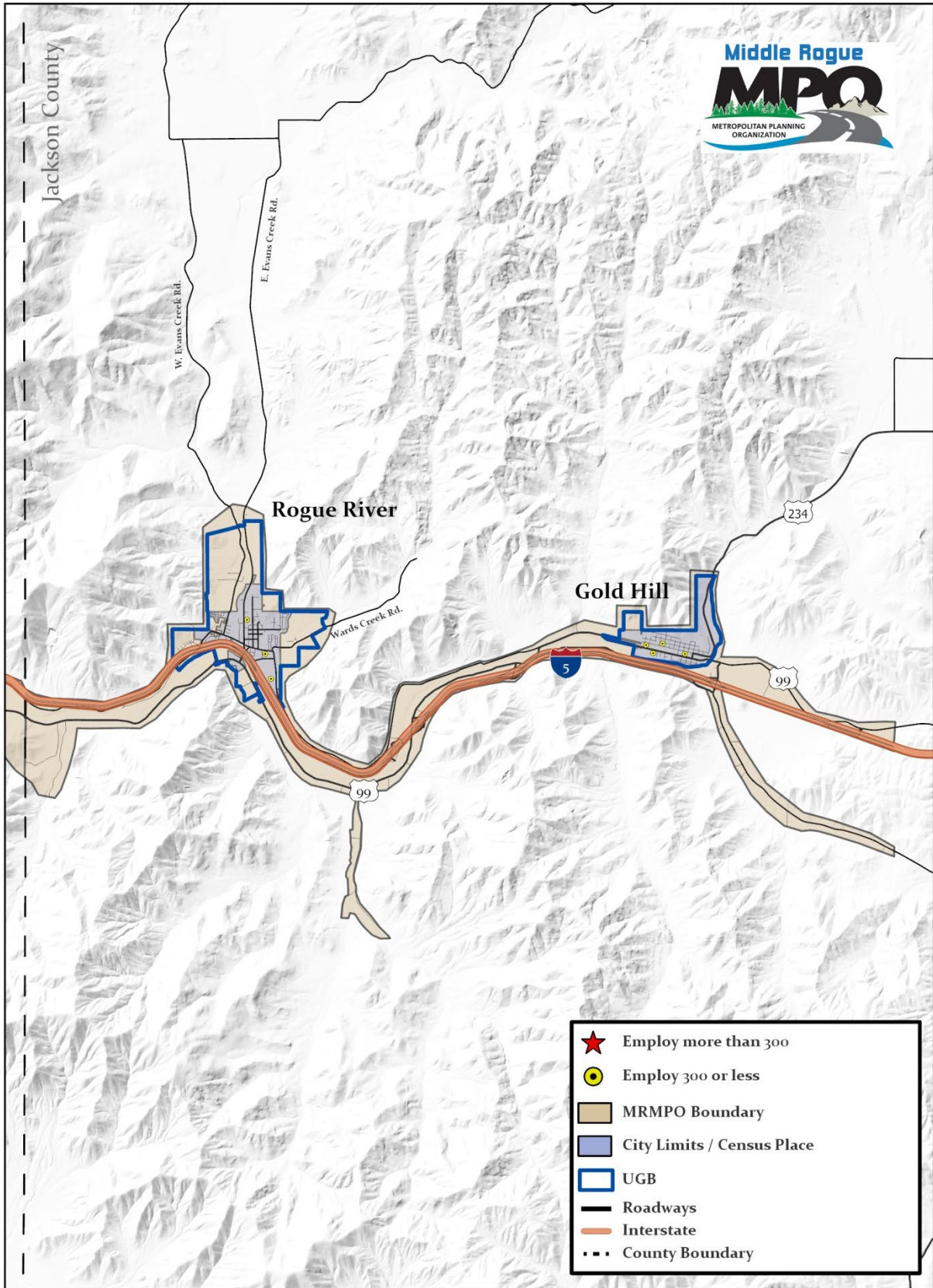






**Map 4-4 – Major Employers**





# Chapter 5 - Existing Transportation System

This chapter describes the capacity and functioning of the existing transportation system and describes weaknesses or deficiencies where they may exist.

## A. Roadways

This section summarizes the roadway characteristics for the federally classified and regionally adopted roadways within the Planning Area.

*“Functional Classification is a grouping of roadways based on the levels of mobility and accessibility that they provide.”*

### 1. Jurisdictional Responsibility and Functional Classification

The public entities that have jurisdictional responsibility for roadways in the Planning Area include: ODOT, Josephine County, Jackson County, and the cities of Grants Pass, Rogue River, and Gold Hill. Map 5-1 depicts jurisdictional responsibility for classified roadways in the Planning Area.

Functional Classification is a grouping of roadways based on the levels of mobility and accessibility that they provide. Principal Arterials provide the highest mobility for through traffic and the least accessibility to the adjacent land. Conversely, local streets are designed for the lowest mobility and the highest accessibility. The classification defines the desirable roadway width, right-of-way needs, access spacing and pedestrian and bicycle facilities. The MRMPO has adopted its Functional Classifications of roadways, as depicted in Map 5-2. Functional Classification of roadways in the Planning Area includes the following designations: Principal Arterials, Minor Arterials, Major Collectors, Minor Collectors, and Local Roads.

The Oregon Highway Plan includes a classification or ranking system for the state highways intended to guide investment and management decisions.

**Statewide Highways** primarily provide interurban and interregional mobility and connections to larger urban areas, ports, and major recreation areas that are not served by Interstate Highways. ODOT’s management objective for highways of statewide significance is high-speed, continuous flow operation.

**Regional Highways** provide connections to regional centers and the Statewide or Interstate Highways or economic and activity centers of regional importance. The management objective for Regional Highways is high-speed, continuous flow in rural areas and moderate to high speed in urban areas. Secondly, they serve local land uses near the highways.

**District Highways** are of countywide significance and are largely county or city arterials or collectors. They link smaller population centers and serve more local travel needs. They are intended to provide moderate-to high-speed continuous flow in rural areas and moderate-to low-speed operation in populated areas. They also serve pedestrians and bicycles. Along any of these highways, ODOT may designate a **Special Transportation Area**. These are highway segments where a downtown, business district or community center straddles the highway. Local auto,

pedestrian, bike, and transit movements are generally as important as through traffic in these areas and slower speeds are allowed. There are no Special Transportation Areas within the MRMPO boundary.

**Principal Arterials**

Principal Arterials are the highest roadway classification and serve larger volumes of regional traffic at higher speeds than roads in the lower classifications. Arterials generally emphasize regional mobility over access to the adjacent land uses. ODOT has responsibility for the design, maintenance, repair, and construction of these facilities. Principal Arterials in the Planning Area include the following:

**Table 5-1 – Principal Arterials**

Road Name	Jurisdiction
Interstate 5 (I-5)	State
Rogue River Highway (OR 99)	State
Redwood Highway (US 199)	State
Jacksonville Highway (OR 238)	State
Downtown section of E Street in City of Grants Pass (0.5 mile)	Grants Pass
Downtown section of F Street in City of Grants Pass (0.9 mile)	Grants Pass

Interstate 5 passes through the MPO for a distance of just under 25 miles and is the primary transportation connector for the three member cities and the region. Redwood Highway (US 199) is an expressway through the Grants Pass urban area before continuing to the northern California/southern Oregon coast. The Oregon Highway Plan (OHP) classifies it as a Statewide Highway and it is part of the National Highway System (NHS). Redwood Highway is also a statewide freight route. Although replaced by Interstate 5 as the principal transportation route through the MRMPO, Rogue River Highway (OR 99) incorporates the Sixth and Seventh couplet through downtown Grants Pass before crossing the river and proceeding eastward to Rogue River and Gold Hill. Jacksonville Highway (OR 238) proceeds southeasterly from Sixth Street approximately six miles to the southern boundary of the MPO before continuing to Applegate, Jacksonville, and Medford.

**Minor Arterials**

Minor Arterials also are intended to favor mobility over access. These roadways provide a higher level of accessibility to adjacent land uses, but a lesser degree of mobility than the Principal Arterials. Minor Arterials in the Planning Area include the following:

**Table 5-2 – Minor Arterials**

Road Name	City	County	Jurisdiction
Jacksonville Highway	N/A	Josephine	State
Rogue River Highway	N/A	Jackson/Josephine	State
Sams Valley Highway	N/A	Jackson	State
Lower River Road	Grants Pass	Josephine	State
Lincoln Road	Grants Pass	Josephine	State/County
Allen Creek Road	N/A	Josephine	County



Highland Avenue	Grants Pass	Josephine	County
New Hope Road	N/A	Josephine	County
Redwood Avenue	Grants Pass	Josephine	County
Upper River Road	N/A	Josephine	County
3 <sup>rd</sup> Street	Grants Pass	Josephine	Municipal Street
G Street	Grants Pass	Josephine	Municipal Street / County
Vine Street	Grants Pass	Josephine	Municipal Street / County
A Street	Grants Pass	Josephine	Municipal Street
Agness Avenue	Grants Pass	Josephine	Municipal Street
Allen Creek Road	Grants Pass	Josephine	Municipal Street
Bridge Street	Grants Pass	Josephine	Municipal Street
Dimmick Street	Grants Pass	Josephine	Municipal Street
E Street	Grants Pass	Josephine	Municipal Street
F Street	Grants Pass	Josephine	Municipal Street
Foothill Boulevard	Grants Pass	Josephine	Municipal Street
M Street	Grants Pass	Josephine	Municipal Street
N Street	Grants Pass	Josephine	Municipal Street
Oak Street	Grants Pass	Josephine	Municipal Street
Parkdale Drive	Grants Pass	Josephine	Municipal Street
East Evan Creek Road	Rogue River	Jackson	Municipal Street
Depot Street	Rogue River	Jackson	Municipal Street
Pine Street	Rogue River	Jackson	Municipal Street

### Major Collectors

Major Collectors are intermediate roadways that typically serve as a direct link between local streets and the arterial street system. Mobility and access functions are important for collectors. Major Collectors in the Planning Area include the following:

**Table 5-3 – Major Collectors**

Road Name	City	County	Jurisdiction
Upper River Road	N/A	Josephine	State
10 <sup>th</sup> Street	N/A	Josephine	County
Ament Road	N/A	Josephine	County
Blackwell Road	N/A	Jackson	County
Cloverlawn Drive	N/A	Josephine	County
Cutrate Road	N/A	Josephine	County
Darneille Lane	N/A	Josephine	County
Demaray Drive	N/A	Josephine	County
Donaldson Road	N/A	Josephine	County
Drury Road	N/A	Josephine	County
Fish Hatchery Road	N/A	Josephine	County
Foothill Boulevard	N/A	Josephine	County
Fruitdale Drive	N/A	Josephine	County

Galice Road	N/A	Josephine	County
Granite Hill Road	N/A	Josephine	County
Helm Road	N/A	Josephine	County
Hillcrest Drive	N/A	Josephine	County
Jaynes Drive	N/A	Josephine	County
Merlin Road	N/A	Josephine	County
Monument Drive	N/A	Josephine	County
New Hope Road	N/A	Josephine	County
Old Stage Road	N/A	Jackson	County
North River Road	N/A	Jackson	County
Robertson Bridge Rd	N/A	Josephine	County
Stringer Gap Road	N/A	Josephine	County
Beacon Drive	Grants Pass	Josephine	County
Cloverlawn Drive	Grants Pass	Josephine	County
Darneille Lane	Grants Pass	Josephine	County
Dowell Road	Grants Pass	Josephine	County
Foothill Boulevard	Grants Pass	Josephine	County
Fruitdale Drive	Grants Pass	Josephine	County
Grandview Avenue	Grants Pass	Josephine	County
Hubbard Lane	Grants Pass	Josephine	County
Leonard Road	Grants Pass	Josephine	County
N Street	Grants Pass	Josephine	County
Scenic Drive	Grants Pass	Josephine	County
Ringuette Street	Grants Pass	Josephine	County
W. Harbeck Road	Grants Pass	Josephine	County
Willow Lane	Grants Pass	Josephine	County
3 <sup>rd</sup> Street	Grants Pass	Josephine	Municipal Street
4 <sup>th</sup> Street	Grants Pass	Josephine	Municipal Street
9 <sup>th</sup> Street	Grants Pass	Josephine	Municipal Street
10 <sup>th</sup> Street	Grants Pass	Josephine	Municipal Street
Allen Creek Road	Grants Pass	Josephine	Municipal Street
D Street	Grants Pass	Josephine	Municipal Street
Drury Lane	Grants Pass	Josephine	Municipal Street
East Park Street	Grants Pass	Josephine	Municipal Street
Evelyn Avenue	Grants Pass	Josephine	Municipal Street
F Street	Grants Pass	Josephine	Municipal Street
Fairgrounds Road	Grants Pass	Josephine	Municipal Street
Fairview Avenue	Grants Pass	Josephine	Municipal Street
Gladiola Avenue	Grants Pass	Josephine	Municipal Street
George Tweed Blvd	Grants Pass	Josephine	Municipal Street
Hamilton Lane	Grants Pass	Josephine	Municipal Street
Harbeck Road	Grants Pass	Josephine	Municipal Street
Haviland Drive	Grants Pass	Josephine	Municipal Street
Hawthorn Avenue	Grants Pass	Josephine	Municipal Street
Hawthorne Avenue	Grants Pass	Josephine	Municipal Street

Hillcrest Drive	Grants Pass	Josephine	Municipal Street
J Street	Grants Pass	Josephine	Municipal Street
Kellenbeck Avenue	Grants Pass	Josephine	Municipal Street
Leonard Road	Grants Pass	Josephine	Municipal Street
Lincoln Road	Grants Pass	Josephine	Municipal Street
Manzanita Avenue	Grants Pass	Josephine	Municipal Street
Midland Avenue	Grants Pass	Josephine	Municipal Street
Mill Street	Grants Pass	Josephine	Municipal Street
Morgan Lane	Grants Pass	Josephine	Municipal Street
North 6 <sup>th</sup> Street	Grants Pass	Josephine	Municipal Street
N Street	Grants Pass	Josephine	Municipal Street
NE Anderson Street	Grants Pass	Josephine	Municipal Street
Parkdale Drive	Grants Pass	Josephine	Municipal Street
Ramsey Avenue	Grants Pass	Josephine	Municipal Street
Redwood Access Rd	Grants Pass	Josephine	Municipal Street
Ringuette Street	Grants Pass	Josephine	Municipal Street
Savage Street	Grants Pass	Josephine	Municipal Street
Schutzwohl Lane	Grants Pass	Josephine	Municipal Street
Scoville Road	Grants Pass	Josephine	Municipal Street
Spalding Avenue	Grants Pass	Josephine	Municipal Street
SW Grandview Ave	Grants Pass	Josephine	Municipal Street
SW Ramsey Ave	Grants Pass	Josephine	Municipal Street
Union Avenue	Grants Pass	Josephine	Municipal Street
Vine Street	Grants Pass	Josephine	Municipal Street
West Park Street	Grants Pass	Josephine	Municipal Street
Washington Blvd	Grants Pass	Josephine	Municipal Street
Depot Street	Rogue River	Jackson	Municipal Street
Foothill Boulevard	Rogue River	Jackson	Municipal Street
Main Street	Rogue River	Jackson	Municipal Street
North River Road	Rogue River	Jackson	Municipal Street

### Minor Collectors

A collector road or distributor road is a low-to-moderate-capacity road which serves to move traffic from local streets to arterial roads. Unlike arterials, collector roads are designed to provide access to residential properties. Minor Collectors in the Planning Area include the following:

**Table 5-4 – Minor Collectors**

Road Name	City	County	Jurisdiction
Granite Hill Road	N/A	Josephine	County
Hugo Road	N/A	Josephine	County
Merlin Avenue	N/A	Josephine	County
Pinecrest Drive	N/A	Josephine	County
Pleasant Valley Road	N/A	Josephine	County

Plumtree Lane	N/A	Josephine	County
Shannon Lane	N/A	Josephine	County
W Evans Creek Road	N/A	Jackson	County
Wards Creek Road	N/A	Jackson	County
Angler Lane	Grants Pass	Josephine	Municipal Street
B Street	Grants Pass	Josephine	Municipal Street
Beacon Drive	Grants Pass	Josephine	Municipal Street
Boundary Road	Grants Pass	Josephine	Municipal Street
Curtis Drive	Grants Pass	Josephine	Municipal Street
Dowell Road	Grants Pass	Josephine	Municipal Street
Elmer Nelson Lane	Grants Pass	Josephine	Municipal Street
Estates Lane	Grants Pass	Josephine	Municipal Street
Fairgrounds Road	Grants Pass	Josephine	Municipal Street
Hamilton Lane	Grants Pass	Josephine	Municipal Street
Morgan Lane	Grants Pass	Josephine	Municipal Street
NE Madrone Street	Grants Pass	Josephine	Municipal Street
Nebraska Avenue	Grants Pass	Josephine	Municipal Street
Portola Drive	Grants Pass	Josephine	Municipal Street
SE N Street	Grants Pass	Josephine	Municipal Street
SE Rogue Drive	Grants Pass	Josephine	Municipal Street
Terry Lane	Grants Pass	Josephine	Municipal Street
W Schutzwohl Lane	Grants Pass	Josephine	Municipal Street
Broadway Street	Rogue River	Jackson	Municipal Street
Cedar Street	Rogue River	Jackson	Municipal Street
Classick Drive	Rogue River	Jackson	Municipal Street
First Street	Rogue River	Jackson	Municipal Street
Second Street	Rogue River	Jackson	Municipal Street
Third Street	Rogue River	Jackson	Municipal Street
Wards Creek Road	Rogue River	Jackson	Municipal Street

## Local Roads

Other roadways in the Planning Area are classified as local roads. Local roads or residential streets provide maximum accessibility to adjacent land uses and minimum mobility.

### 2. Number of Lanes and Roadway Width

The number of lanes helps define the capacity and streetscape of a roadway. Map 5-3 shows the number of lanes for arterials and collectors in the Planning Area.

Most of the arterials and collectors in the Planning Area have one lane in each direction, although some of the arterials and collectors in Grants Pass have more. This includes:

- 6<sup>th</sup> Street (three lanes southbound)
- 7<sup>th</sup> Street (three lanes northbound)
- E Street (two lanes westbound)
- F Street (two lanes eastbound)



- Grants Pass Parkway
- Redwood Highway 199
- Jacksonville Highway 238

Roadway widths for urban collectors generally range from 30 to 40 feet. Widths of urban minor arterials and urban principal arterials may exceed 60 feet.

### 3. Posted Speed Limits

Posted speed limits affect the capacity and characterize the function of a roadway. Posted speed limits are generally 25 mph through central Grants Pass, Gold Hill, and Rogue River, and range from 30 to 45 mph on other arterials and collectors within Grants Pass, Gold Hill, and Rogue River. Toward the outer edges of the Planning Area, speed limits are generally 45 to 50 mph, rising to 55 mph on state highways outside of urban growth boundaries. Interstate 5 has a 65 mph speed limit throughout the region.

### 4. Signalized Intersections

There are more than 50 signalized intersections in Grants Pass, two signalized intersections at the I-5 ramps in Rogue River, and none in Gold Hill. There is one signalized intersection located in unincorporated Josephine County and Jackson County within the Planning Area.

### 5. Pavement Condition

MPO member jurisdictions use a variety of methods to track pavement conditions within their jurisdictions. Most jurisdictions within the MPO maintain a database of their pavement conditions.

ODOT conducts pavement conditions surveys to determine the overall condition of the state highway system. The pavement condition data also enables ODOT to track pavement performance and determine rehabilitation and funding needs on a network wide basis. The pavement condition uses a rating system with five categories ranging from Very Good to Very Poor. Most state roads in the Planning Area are rated Fair to Very Good. Rogue River Loop, west of Grants Pass and the connection between I-5 and Sams Valley Highway at OR 234 have been rated Poor.



### 6. Bridge Condition

Bridges in the Planning Area include city, county, and state bridges. Map 5-4 shows bridge locations and sufficiency ratings.

The sufficiency rating formula is a method of evaluating highway bridge data by calculating four separate factors to obtain a numeric value which is indicative of bridge sufficiency to remain in service. The result of this method is a percentage in which 100 percent would represent an entirely sufficient bridge and zero percent would represent an entirely insufficient or deficient bridge. The four factors are: (1) structural adequacy and safety (55% max); (2) serviceability and functional obsolescence (30%); (3) essentiality for public use (15%); and (4) special reductions

(-13% max). Although this index has fallen out of favor with many states, the Federal Highway Administration uses this index in evaluating the nation’s bridges for funding distribution and eligibility. Those bridges with a sufficiency rating of 80 or less are eligible for rehabilitation. Those bridges with a sufficiency of 50 or less are eligible for replacement.

Tables 5-5, 5-6 and 5-7 below list the bridges within the MRMPO by roadway, owner, sufficiency rating and county. Table 5-5 lists the bridges with sufficiency ratings 81 to 100, Table 5-6 lists the bridges with sufficiency ratings of 51 to 80, and Table 5-7 lists the bridges with sufficiency ratings of 0 to 50 (no bridges had a score below 21.80).

**Table 5-5 – Bridge Sufficiency Ratings: 81 to 100**

SUFFICIENCY RATING: 81 to 100 - GOOD CONDITION				
BRIDGE NAME	ROADWAY	OWNER	SUFFICIENCY RATING	COUNTY
Owl Creek, Hwy 60 (Little Savage Creek)	OR 99 (HWY 060)	State Highway Agency	100.00	Jackson
Irrigation Ditch, Hwy 1 Frtg Rd Rt at MP F40.85	I-5 (HWY 001) FR	State Highway Agency	100.00	Jackson
Irrigation Ditch, Hwy 1 Frtg Rd Rt at MP F40.92	I-5 (HWY 001) FR	State Highway Agency	100.00	Jackson
Green Creek, Hwy 60	OR 99 (HWY 060)	State Highway Agency	100.00	Josephine
Main Low Canal, Hwy 60	OR 99 (HWY 060)	State Highway Agency	100.00	Josephine
Blackwell Creek, Hwy 486	OR 99 (HWY 486)	State Highway Agency	100.00	Jackson
Skunk Creek, Hwy 25 at MP -1.30	US199 (HWY 025)NB	State Highway Agency	100.00	Josephine
Kane Creek, Hwy 1 Front Rd Lt	I-5 (HWY 001) CON	State Highway Agency	98.00	Jackson
Irrigation Canal, Cloverlawn Dr	CLOVERLAWN DRIVE	County Hwy Agency	97.90	Josephine
Upper Ditch South Hoghland Canal, Hwy 272	OR 238 (HWY 272)	State Highway Agency	97.00	Josephine
Irrigation Ditch, Hwy 1 Frtg Rd Lt at MP F41.18	I-5 (HWY 001) FR	State Highway Agency	97.00	Jackson
Harris Creek, Tavis Dr	TAVIS DRIVE	County Hwy Agency	97.00	Josephine
Sparrowhawk Creek, Leonard Rd	LEONARD ROAD	County Hwy Agency	96.30	Josephine
Allen Creek & Golf Cart Path, Hwy 272	OR 238 (HWY 272)	State Highway Agency	96.00	Josephine
Sand Creek, Sand Creek Rd	SAND CREEK ROAD	County Hwy Agency	94.60	Josephine
Louse Creek, Pleasant Valley Rd	PLEASANT VALLEY RD	County Hwy Agency	94.50	Josephine
Jones Creek, Foothill Blvd	FOOTHILL BLVD.	County Hwy Agency	94.40	Josephine
Louse Creek & Conn, Hwy 1 SB	I-5 (HWY 001) SB	State Highway Agency	93.30	Josephine
Louse Creek & Conn, Hwy 1 NB	I-5 (HWY 001) NB	State Highway Agency	93.30	Josephine
Irrigation Canal, Ringuette St	RINGUETTE STREET	County Hwy Agency	93.10	Josephine
Fruitdale Creek, Hamiltin Ln	HAMILTON LANE	County Hwy Agency	93.00	Josephine
Louse Creek, Hwy 1 Conn #2	I-5 (HWY 001) CON	State Highway Agency	92.80	Josephine
Evans Creek, W Main St	WEST MAIN ST	CTY/MUN Hwy AGCY	92.60	Jackson
Ward Creek, Classic Dr	CLASSIC DR	CTY/MUN Hwy AGCY	92.20	Jackson
Rogue River, Hwy 482 Spur	HWY 482 SPUR	State Highway Agency	91.50	Josephine
Louse Creek, Haines Ln	HAINES LANE	County Hwy Agency	91.00	Josephine
Hwy 1 over Hwy 482 Spur	I-5 (HWY 001)	State Highway Agency	90.60	Josephine
Hwy 1 NB over Beacon Dr	I-5 (HWY 001)	State Highway Agency	90.50	Josephine
Harris Creek, Monument Dr	MONUMENT DRIVE	County Hwy Agency	89.70	Josephine
Hwy 60 SB & Hwy 25 over Hwy 272	OR 99 (HWY 060)	State Highway Agency	89.40	Josephine
Harris Creek, Pleasant Valley Rd	PLEASANT VALLEY RD	County Hwy Agency	89.30	Josephine
Fruitdale Creek, Hwy 60	OR 99 (HWY 060)	State Highway Agency	89.00	Josephine
Jumpoff Joe Creek, Hugo Rd	HUGO ROAD	County Hwy Agency	88.40	Josephine
Irrigation Canal, Arnold Ave	ARNOLD AVE	County Hwy Agency	87.70	Josephine
Irrigation Canal, Dowell Rd	DOWELL ROAD	County Hwy Agency	86.80	Josephine
Sand Creek, Hubbard Ln	HUBBARD LANE	County Hwy Agency	85.90	Josephine
Foots Creek, Right Fork Foots Rd # 915	RT FRK FOOTS CR RD	County Hwy Agency	85.50	Jackson
Rogue River, Depot St	DEPOT STREET	State Highway Agency	85.10	Jackson
Irrigation Canal, Hwy 25 at MP 3.38	HWY 25	State Highway Agency	85.00	Josephine
Allen Creek, Hwy 25	HWY 25	State Highway Agency	85.00	Josephine
Irrigation Ditch, Hwy 25 at MP 0.49	HWY 25	State Highway Agency	85.00	Josephine
Hwy 1 SB over Beacon Dr	I-5 (HWY 001)	State Highway Agency	83.60	Josephine
Stockpass, Hwy 1 at MP 39.74	I-5 (HWY 001)	State Highway Agency	83.00	Jackson
Blackwell Creek, Hwy 1	I-5 (HWY 001)	State Highway Agency	83.00	Jackson
Equipment Pass, Hwy 1 at MP 50.80	I-5 (HWY 001)	State Highway Agency	83.00	Jackson
Kane Creek, Hwy 1	I-5 (HWY 001)	State Highway Agency	83.00	Jackson
Equipment Pass, Hwy 1 at MP 52.12	I-5 (HWY 001)	State Highway Agency	83.00	Jackson
Galls Creek, Hwy 1	I-5 (HWY 001)	State Highway Agency	83.00	Jackson
Equipment Pass, Hwy 1 at MP 53.51	I-5 (HWY 001)	State Highway Agency	83.00	Josephine
Tokay Canal, Hwy 1	I-5 (HWY 001)	State Highway Agency	83.00	Josephine
Sand Creek, Leonard Rd	LEONARD ROAD	County Hwy Agency	82.60	Josephine
Hwy 1 over Seoville Rd	I-5 (HWY 001)	State Highway Agency	82.50	Josephine
Irrigation Canal, Hwy 272 at MP S0.24	HWY 272	State Highway Agency	81.00	Josephine
Irrigation Canal, Willow Ln	WILLOW LANE	County Hwy Agency	80.60	Josephine
Onion Creek, Hwy 272	OR 238 (HWY 272)	State Highway Agency	80.40	Josephine
Jumpoff Joe Creek, Russell Rd	RUSSELL ROAD	County Hwy Agency	80.40	Josephine



**Table 5-6 – Bridge Sufficiency Ratings: 51 to 80**

SUFFICIENCY RATING: 51 to 80 - ELIGIBLE FOR REHABILITATION				
BRIDGE NAME	ROADWAY	OWNER	SUFFICIENCY RATING	COUNTY
Irrigation Canal, Elk Ln	ELK LANE	County Hwy Agency	79.90	Josephine
Irrigation Canal, Gaffney Way	GAFFNEY WAY	CTY/MUN Hwy AGCY	79.10	Josephine
Hwy 1 over Depot St	I-5 (HWY 001)	State Highway Agency	79.00	Jackson
Kane Creek, Kane Creek Rd #835	COUNTY RD 835	County Hwy Agency	78.80	Jackson
Irrigation Canal, Hamilton Ln	HAMILTON LANE	County Hwy Agency	78.70	Josephine
Hwy 1 over Foley Lane Frontage Rd	I-5 (Hwy 001)	State Highway Agency	78.50	Jackson
Louse Creek, Monument Dr	MONUMENT DRIVE	County Hwy Agency	77.30	Josephine
Irrigation Canal, Drury Lane	DRURY LANE	County Hwy Agency	76.90	Josephine
Hwy 1 over Hillcrest Dr	I-5 (HWY 001)	State Highway Agency	76.90	Josephine
Hwy 1 SB over Hwy 60	I-5 (HWY 001) SB	State Highway Agency	76.10	Jackson
Hwy 1 over Galls Creek Front Rd Conn	I-5 (HWY 001)	State Highway Agency	75.10	Jackson
Louse Creek, Carton Way	CARTON WAY	County Hwy Agency	74.00	Josephine
Irrigation Canal, College Dr	COLLEGE DRIVE	County Hwy Agency	73.80	Josephine
Irrigation Ditch, New Hope Rd	NEW HOPE ROAD	County Hwy Agency	72.70	Josephine
Jones Creek, Hwy 1	I-5 (HWY 001)	State Highway Agency	72.00	Josephine
Wards Creek, Main St	MAIN ST	CTY/MUN Hwy AGCY	71.40	Jackson
Galls Creek, Lampman Rd.	Lampman Rd. (#807)	County Hwy Agency	70.10	Jackson
Hwy 1 SB over Foothill Blvd	I-5 (HWY 001) SB	State Highway Agency	70.00	Josephine
Gilbert Creek, Hwy 260	G STREET	CTY/MUN Hwy AGCY	69.40	Josephine
Sand Creek, Hwy 25	US199 (HWY 025)	State Highway Agency	68.00	Josephine
Hwy 486 Spur over Hwy 1 (S Gold Hill)	OR 99 (HWY 486)	State Highway Agency	67.90	Jackson
Hwy 1 NB over Foothill Blvd	I-5 (HWY 001) NB	State Highway Agency	67.60	Josephine
Hwy 1 over Hwy 25 NB	I-5 (HWY 001)	State Highway Agency	67.60	Josephine
Louse Creek, Highland Frontage Road	HIGHLAND AVENUE	County Hwy Agency	66.80	Josephine
Quartz Creek, Ward Rd	WARD ROAD	County Hwy Agency	64.90	Josephine
Hwy 60 over Hwy 1	OR 99 (HWY 060)	State Highway Agency	64.40	Jackson
Main Canal, Cloverlawn Dr	CLOVERLAWN DRIVE	County Hwy Agency	62.20	Josephine
Sardine Creek, Hwy 271	OR 99 (HWY 271)	State Highway Agency	60.60	Jackson
Foots Creek, Hwy 60	OR 99 (HWY 060)	State Highway Agency	59.90	Jackson
Hwy 1 NB over Hwy 60	I-5 (HWY 001) NB	State Highway Agency	59.90	Jackson
Rogue River, Hwy 486 (Gold Hill Spur )	OR 99 (HWY 486)	State Highway Agency	59.90	Jackson
Ward Creek, Hwy 1	I-5 (HWY 001)	State Highway Agency	58.90	Jackson
Rogue River, Hwy 1 NB (Homestead)	I-5 (HWY 001) NB	State Highway Agency	58.70	Jackson
Rogue River, Hwy 25 NB (7th St)	US199 (HWY 025)NB	State Highway Agency	57.90	Josephine
Kane Creek, Old Stage Rd	OLD STAGE ROAD	County Hwy Agency	57.50	Jackson
Rogue River +, Hwy 271 (Rock Point)	OR 99 (HWY 271)	State Highway Agency	53.40	Jackson
Rogue River, Hwy 1 SB (Homestead)	I-5 (HWY 001) SB	State Highway Agency	53.30	Jackson

**Table 5-7 – Bridge Sufficiency Ratings: 0 to 50**

SUFFICIENCY RATING: 0 to 50 - ELIGIBLE FOR REPLACEMENT				
BRIDGE NAME	ROADWAY	OWNER	SUFFICIENCY RATING	COUNTY
Hwy 1 over Foothill Blvd	I-5 (HWY 001)	State Highway Agency	49.80	Josephine
Millers Gulch, Hwy 60	OR 99 (HWY 060)	State Highway Agency	49.70	Jackson
Hwy 272 over NB Hwy 25	OR 238 (HWY 272)	State Highway Agency	49.50	Josephine
Savage Creek, Hwy 60	OR 99 (HWY 060)	State Highway Agency	47.80	Jackson
Birdseye Creek, Hwy 60	OR 99 (HWY 060)	State Highway Agency	47.10	Jackson
Merlin Hill Frtg Rd (Highland Av) over Hwy 1	FT RD(HIGHLAND AV)	State Highway Agency	42.50	Josephine
Right Fork Roots Creek, Right Fork Roots Creek R	RT FRK FOOTS CR RD	County Hwy Agency	35.00	Jackson
Evans Creek, Hwy 1	I-5 (HWY 001)	State Highway Agency	35.00	Jackson
Rogue River, Hwy 25 SB (6th St, Caveman)	Hwy 99 SB	State Highway Agency	31.90	Josephine
Sand Creek, Elmer Nelson Way	Elmer Nelson Way	CTY/MUN Hwy AGCY	21.80	Josephine

### 7. Freight Routes

Freight movement on highways is critical to the economic health of a region. A major element of traffic in the Planning Area is freight movement via truck on the two designated statewide freight routes that extend through the Planning Area, Interstate 5 and OR 199. ODOT’s *Traffic Volume and Vehicle Classification Report* for 2013 indicates that truck traffic on Interstate 5 increases from 17.7% of total volume southeast of Gold Hill to 23.1% north of the Merlin interchange. Truck traffic on Highway 199 represents about 2.6% of total volume in Grants Pass, and 14.1% near the Applegate River.

Map 5-5 illustrates the typical flow of truck freight traffic in the Planning Area, showing the annual average daily traffic on freight routes.

## B. Transit System

The general public transit system is operated by Josephine County Public Works under the name Josephine Community Transit (JCT). Map 5-6 shows the existing fixed route and commuter route transit lines. Also operated by JCT is the Rogue Valley Commuter Line which provides service to Grants Pass, Rogue River, Gold Hill, and Medford. The other general public transit providers are the intercity operators Greyhound and South West Point. Greyhound provides service along the I-5 corridor, while SW Point provides service between Klamath Falls and Brookings.

### 1. Fixed-Route Transit

#### Josephine Community Transit (JCT)

JCT provides local fixed route and commuter route transit services within Josephine County as well as cross county connections between Grants Pass and Medford with stops in Rogue River and Gold Hill. Fares currently are \$1.00 for full fare on the fixed routes and \$2.00 on the commuter routes. Discounts are available for those that qualify due to age, disability, or qualification under JCT’s reduced fare program.

JCT provides four fixed routes within the Grants Pass Urban Growth Boundary (UGB). The existing routes provide coverage to commercial, employment, educational, and government

destinations throughout the greater Grants Pass area. Service operates Monday through Friday only between the hours of 6:30 a.m. to 9:30 p.m. Two routes operate with a 30 minute service frequency and two operate every 60 minutes. Transfers can be made between routes for free, with a valid transfer, within 60 minutes of deboarding any JCT route.



JCT also operates two commuter routes within Josephine County and one with a connection into Jackson. The two commuter routes in Josephine County are Route 50 which provides service to Cave Junction and Route 80 going to Wolf Creek. The Route 100 makes connection between Medford and Grants Pass with stops in Rogue River and Gold Hill. There are seven round trips each weekday on Rt 50 and Rt 100. There are three trips in the a.m., one at noon and three in the p.m. There are currently three trips per day on Rt 80, which serves the areas to the north of Grants Pass. There are stops made in Merlin, Hugo, and Sunny Valley and a turnaround in Wolf Creek. This route only provides for three trips per day (a.m., mid-day and p.m.).

### **Senior and Disabled Transit Service**

All JCT's vehicles are accessible and can hold up to two mobility devices at any given time. All stops within the fixed route system are Americans with Disabilities Act (ADA) compliant. In addition to the fixed route and commuter services, JCT also provides paratransit and demand response service for those that qualify.

Paratransit service is a requirement under the ADA. This service consists of door-to-door service, on-demand, for those that qualify. To qualify a person has to have a disability that prevents them from using the fixed route for all or some of their trips. Service is only available within  $\frac{3}{4}$  mile on each side of an existing fixed route. There is no associated paratransit service for the commuter routes. The fare is double the full fare for the fixed routes. Once qualified, a person needs to call the prior day, between 8:00 a.m. and 5:00 p.m. to schedule a ride. There can be no ride denials and request for service has to be met at 100% to continue compliance with the ADA.

Demand response services are also available for those over the age of 62. This is essentially the same as the paratransit service except a person only has to be over 62 to qualify. During times of high demand, all trip requests for these passengers might not be met. If a person applies under the over 62 category and appears to qualify for paratransit, they will be informed they have that option as well.

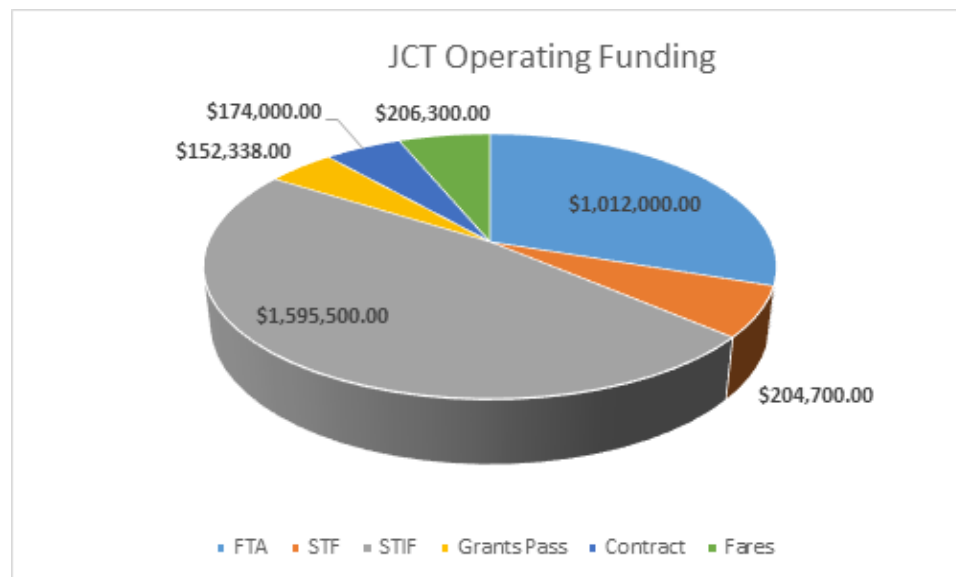
The hours of operation for the paratransit and demand response service are the same as the fixed routes, Monday through Friday 6:30 a.m. and 9:30 p.m. The cost for both is double the fixed route full fare. Users of these services are encouraged to use the fixed routes since the fare is .50¢ and there is no prior day scheduling requirement. There is no paratransit or demand response services associated with the commuter routes.

### Ridership and Funding

Funding for transit operations comes from a variety of state and federal funds, all of which are dedicated specifically for transit use only. In addition to state and federal funds, JCT has a variety of operating agreements with local agencies such as the Rogue Community College (RCC), Non-emergency Medical Transportation (NEMT), and multiple social service agencies. These funds are used to provide the local match requirement to receive other Federal Transit Administration (FTA) dollars.

The City of Grants Pass also pays the match requirement on a grant that is used to purchase fixed route transit from JCT. The funds are used to purchase transit service from JCT and provide the local match requirement. The funds are from the FTA 5310 program and are exclusively for elderly and disabled transportation services.

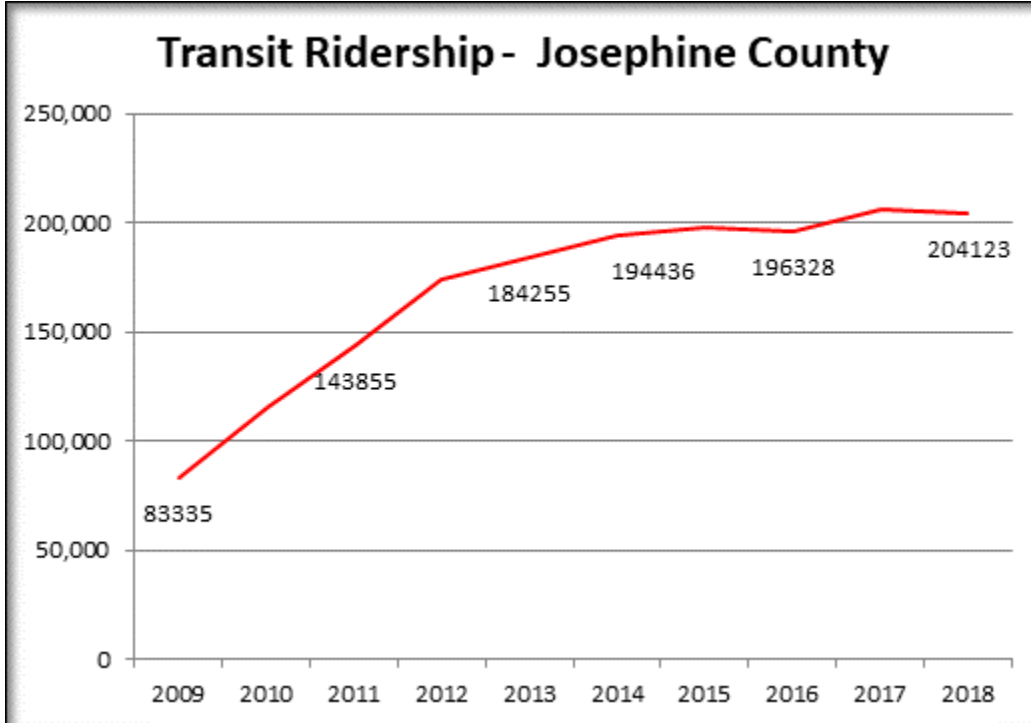
**Figure 5-1 – Transit Operating Funds**



The majority of funding for transit service comes from the FTA and State Transportation Improvement Funds (STIF). The STIF funds are generated by state payroll tax dedicated specifically for improved transit services. The STIF funds can also be used as the required match for federal funds received. All funds are dedicated at their sources specifically for public transit service and can't be used for other transportation projects or uses.

In 2020 JCT charges passengers \$1.00 per local ride and \$2.00 for trips to Cave Junction. Monthly passes are available (\$38 for full fare, \$50 for Cave Junction, and \$19 for reduced fare). Paratransit rides are, per the ADA, double the full fare of the fixed route. Fare rates can be changed after proper public input and are not necessarily static in nature.

**Figure 5-2 – Transit Ridership**



The STIF funds became available in 2019 and are prioritized for service improvements. The planned service improvements, by priority are:

- 1) Saturday service
- 2) Late evening service expansion
- 3) Improve service frequency (Monday through Friday)
- 4) Service expansion in Grants Pass and along the Hwy 238 corridor

After the listed improvements are made additional services can be evaluated and prioritized.

## **2. Non-Emergency Medical (Medicaid) Transportation**

Translink and Ready Ride are the Medicaid transportation brokerages serving Oregon Medical Assistance Program (OMAP) clients in Josephine and Jackson counties. The Rogue Valley Transportation District (RVTD) administers Translink; a service providing approximately 3,200 trips per month for MRMPO Planning Area residents. ReadyRide is another non-emergency medical transportation provider arranging approximately 5,700 trips per month for Josephine County residents. Both services note nearly 80% of the rides that originate in Josephine County or the cities that make up the MRMPO (Grants Pass, Rogue River, and Gold Hill) stay within the Grants Pass Urbanized Area. The remaining 20% go to Medford. Changes to the Oregon Health Plan in February 2003 cut the number of eligible clients and reduced the number of covered trips by about half from prior year levels.

### 3. Specialized Public Transportation Services

As of the end of 2019, a number of specialized transportation services also operated in Josephine County, as described below. Upon request, JCT does take solicitations for their Class C vehicles that have reached the end of their useful life and are being taken out of service. Meaning that JCT gives those vehicles to other agencies to utilize for their transportation needs. These other agencies are providing for client only transportation services.

Options of Southern Oregon serves as the Community Mental Health Program for Josephine County. Options provides for resident patient transportation and utilizes ODOT Public Transit Division (PTD) funds for preventative maintenance and replacement vehicles. For outpatient clients, Options utilizes Ready Ride and Translink transportation services. Options also has their own fleet of vehicles that they use to provide for their own client transportation needs.

Southern Oregon Aspire is a nonprofit organization that provides residential and vocational support to people with intellectual and developmental disabilities in Jackson and Josephine Counties. Aspire provides for client only transportation between worksites/activity centers. They also have vehicles for specific group homes, as well.

Boys and Girls Club of Grants Pass serves local youth. They have their own vehicle for their own clients and activities.

Coalition for Kids is a nonprofit organization helping kids and families. They have a vehicle and provide for their own clients and activities.

Taxi Service – There are multiple taxi providers operating in Grants Pass, many of which originate in Medford and provide intercity service connections, as well.

### 4. Intercity Bus Service

Greyhound provides weekday intercity bus service along the I-5 corridor between Portland and Sacramento. As of winter 2003, Greyhound made four daily stops in Grants Pass in each direction. Greyhound terminals are located on Agness Avenue and can make connections with the JCT routes at that location as well.

Southwest Point also stops in Grants Pass twice per day. Once is on the way to Klamath Falls and the other is on the way to Smith River, CA. Southwest Point can make connections to the JCT routes in Cave Junction, Selma, and Grants Pass. Southwest Point also services the Rogue Valley Airport as well as makes a connection to Amtrak in Klamath Falls.

As mentioned above, the Route 100 is operated by JCT. It makes seven trips per day between the cities of Grants Pass, Rogue River, Gold Hill, and Medford. The stop in Medford is at the RVTD Front Street Transfer Station. Transfers can be made for free within 60 minutes of arrival. The services of JCT and RVTD effectively connect the entire Rogue Valley from Cave Junction and Wolf Creek all the way to Ashland.





## 5. School Bus Routes

The MRMPO Planning Area is also served by numerous public school bus routes operated by First Student. These routes rely on the Planning Area’s arterial and collector roadway system to connect the homes of individual students or groups of students with the area’s public schools.

Maps and times for existing routes for Grants Pass public schools are available on the Grants Pass School District No. 7 website ([www.grantspass.or.schoolwebpages.com](http://www.grantspass.or.schoolwebpages.com)). Unincorporated county school bus information can be found on the Three Rivers School District website ([www.threerivers.k12.or.us](http://www.threerivers.k12.or.us)). Rogue River school bus information is available by contacting First Student, and Gold Hill students are served by the Central Point School District located within the Medford Urbanized Area.

## C. Pedestrian System

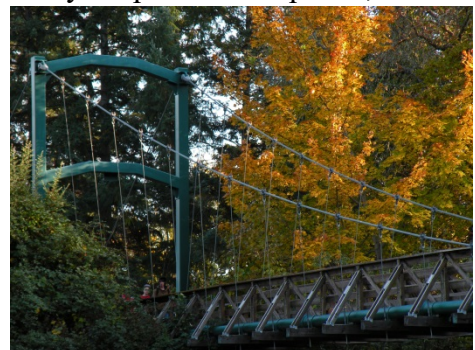
Pedestrian facilities that are accessible, convenient, and safe to use are essential components of the transportation system. As the *Oregon Bicycle and Pedestrian Plan (OBPP)* explains, virtually everyone is a pedestrian at some point during the day and therefore benefits from accessible facilities. Pedestrians include children walking to and from school, people using wheelchairs or other forms of mobility assistance, workers walking to lunch, and people walking to and from their vehicles. In addition, walking meets the commuting, recreational, and social transportation needs for a significant portion of the population that cannot or chooses not to drive. The community’s pedestrian system also offers recreational opportunities for both local and out-of-town users.

According to the OBPP, pedestrian facilities are defined as any facilities used by a pedestrian, including walkways, traffic signals, crosswalks, curb ramps, and other amenities such as illumination or benches. The Planning Area has several different types of walkways, which are defined in the OBPP as “transportation facilities built for use by pedestrians and persons in wheelchairs,” including the following:

**Sidewalks:** Sidewalks are separated from the roadway with a curb and/or planting strip. ODOT’s minimum standard sidewalk width is 6 feet. The City of Grants Pass requires 5 to 6-foot minimum sidewalks and an 8-foot minimum in the Central Business District. Gold Hill requires sidewalks in subdivisions, only. Rogue River requires 4 to 6-foot sidewalks on arterials and collectors, as well as in subdivisions.

**Multi-Use Paths:** Multi-use paths are used by a variety of non-motorized users, including walkers, bicyclists, skaters, and runners. Multi-use paths may be paved or unpaved, and are often 10 or 12 feet wide—significantly wider than the average sidewalk. Multi-use paths are discussed in detail in the bicycle section.

**Roadway Shoulders:** Roadway shoulders often serve as pedestrian routes in rural areas. On roadways with low traffic volumes (i.e. less than 3,000 vehicles per day), roadway shoulders are often adequate for pedestrian travel. These roadways should have



shoulders wide enough so that both pedestrians and bicyclists can use them, usually 6 feet or greater. There are several roadways like this in the Planning Area.

**Pedestrian Activated Crosswalks:** Pedestrian activated crosswalks are roadway crossings for pedestrians that include a push button for activating a blinking yield light, a marked crosswalk, and often a raised median for pedestrian refuge. Upon the activation of the yield light by a pedestrian, the yield light starts blinking and signals to the motorists the presence of a pedestrian who intends to cross the street. Vehicles stop before the crosswalk and allow the pedestrian to safely cross the street. Examples of these types of facilities are in Grants Pass on SW G Street at Booth, and on NW 3<sup>rd</sup> Street at the railroad crossing.

## 1. Existing Sidewalks

The pedestrian system in the Planning Area is comprehensive in certain areas, such as in downtown Grants Pass, and along most arterial and collector roadways within city limits. Sidewalks are lacking in other areas, such as on the outskirts of the Planning Area and on roadways in unincorporated areas. Sidewalk obstructions and encroachments, typically mailboxes, overgrown vegetation, and utility poles, impede safe and accessible pedestrian travel in some areas. Map 5-7 displays the existing sidewalk network within the MRMPO region.

## 2. Pedestrian Destinations

Major pedestrian destinations are located in the following areas of the region:

**Downtowns:** Grants Pass, Gold Hill, and Rogue River have downtown cores that are destinations for pedestrians.

**Schools:** Most of the arterial and collector streets around schools in the Grants Pass Urban Growth Boundary have sidewalks on at least one side of the street and are generally in good or fair condition. The exceptions are the schools fronting on county roads outside of the Grants Pass Urban Growth Boundary. Hanby Middle School and Patrick Elementary School in Gold Hill also lack a complete system of sidewalks.

**Parks/Recreation Centers:** Most of the parks and recreation centers in the Planning Area are accessible by sidewalk or multi-use path. Other parks are accessible by bicycle or by walking on a wide shoulder or bicycle lane. Pearce Park Road accessing Tom Pearce Park east of Grants Pass has relatively narrow shoulders, although the park may be accessed from NE Spaulding which includes a multi-use path. Cathedral Hills Park near the Grants Pass Golf Course also has limited pedestrian access although one of its primary attractions is hiking trails.

**Shopping/Retail Centers:** Shopping/retail centers are located throughout the region, clustered in downtown Gold Hill, Rogue River, and Grants Pass, along the roadways. Most of these shopping and retail centers are accessible on sidewalks. However, the high traffic volumes and curb-tight sidewalks can make the walking experience uncomfortable. Additionally, many retail and shopping areas have limited pedestrian access from the sidewalk to the business itself, forcing pedestrians to walk through a large parking lot without a clear walkway.

**Employment Centers:** Employment centers in the Planning Area include government offices in the Grants Pass downtown core, retail services mentioned above, RCC, medical facilities surrounding Three Rivers Medical Center, and industry throughout the region. Major employment centers have good sidewalk connectivity and access, and some have internal pathway systems that improve pedestrian access.

### 3. Pedestrian System Deficiencies

Although many of the arterials and collectors in the Planning Area have adequate pedestrian facilities and a complementary multi-use path system, there are still several barriers pedestrians must overcome:

**Auto-Oriented Land Uses:** Auto-oriented land uses clustered outside of the downtown cores force many pedestrians to walk along and cross high-volume arterial roadways to access destinations. Many of these roadways have sidewalks but they are only 5-feet wide and adjacent to the curb (no buffers). The lack of a buffer next to high-speed traffic can make walking uncomfortable and potentially dangerous.

**Limited Crossings:** Crossing larger arterials like Redwood Highway and Williams Highway is challenging due to long distances between signalized intersections and marked crossings. Gaps, or opportunities to cross the roadway, are decreasing due to increasing traffic volumes and signal timing that has not been adjusted to reflect the changing roadway conditions. These conditions discourage pedestrians from walking to services along the roadway and may endanger those who choose to dart across the roadway to reach their desired destinations.

**Lack of Handicapped Accessibility:** Some areas of the arterial and collector street systems lack ADA-compliant curb ramps and driveway cuts. This can make traveling by wheelchair or motorized mobility device challenging, if not impossible. The Wards Creek Bridge in Rogue River is an example of a major impediment that requires wheelchairs and motorized scooters to utilize the vehicle travel lanes.

**Poor Sidewalk Connectivity:** Though sidewalk connectivity is generally good in Grants Pass and in the downtown area of Rogue River, older residential areas in the unincorporated counties and in Gold Hill lack sidewalks and, in many cases, a shoulder or bicycle lane that would provide pedestrians with a place to walk beside the roadway.

*It should be noted that a number of sidewalk projects in Grants Pass area are expected to be constructed within the short and medium range years of the RTP. Additionally, a section of the Rogue River Greenway is planned for construction within the short range (2015 – 2020). Please refer to the RTP Project List for more information on upcoming projects that include pedestrian facilities.*



## D. Bicycle System

Bicycle facilities are integral elements of the transportation system and valuable components in a strategy to reduce reliance on automobiles and provide greater transportation options to everyone. The community benefits in many ways from adequate bicycle facilities including reducing traffic congestion, supporting tourism, improving public health, and providing accessibility to all parts of the community. Further, there is a segment of the population who do not drive or who do not have access to an automobile.

The relatively small size of Grants Pass, Rogue River, and Gold Hill is amenable to travel by bicycle. Depending on the type of trip, studies indicate a willingness of people to walk between a quarter and a half mile, and bicycle upwards of 2 or 3 miles.

According to 2009-2013 U.S. Census data from the American Community Survey, 1% of the workers in Grants Pass commute to work by bicycle. This does not include recreational rides or rides for other purposes, however, which include a much larger number of people riding bicycles in the community.

Map 5-7 identifies bicycle facilities in the Planning Area.

### 1. Types of Bicycle Facilities

According to the American Association of State Highway Transportation Officials (AASHTO) *Guide for the Development of Bicycle Facilities* (2012) and the Oregon Department of Transportation (ODOT) *Oregon Bicycle and Pedestrian Design Guide* (2011), there are several different types of bicycle facilities. Bicycles are allowed on all roadways in Grants Pass, Gold Hill, Rogue River, and the surrounding areas. Bikeways are distinguished as preferential roadways that have facilities to accommodate bicycles. Accommodation can be a bicycle route designation, bicycle lane striping, and roadway shoulders with a minimum 4-foot width. Multi-use paths are facilities separated from a roadway for use by cyclists, pedestrians, skaters, runners, or others.

The following types of bikeways, recognized by AASHTO and ODOT, are found in the Planning Area:

**Shared Roadway / Shared Lane:** Bicyclists and motorists share the same roadway or travel lane. A shared roadway is the most prevalent type of bikeway; common on neighborhood residential streets, on rural roads and low-volume highways. The most suitable roadways for shared bicycle use are those with low speeds (25 mph or less) or low traffic volumes (3,000 ADT or less). A ‘sharrow’ pavement marking is often used to indicate shared travel lanes.

**Bicycle Boulevards:** A street segment, or series of contiguous street segments, that has been modified to accommodate through bicycle traffic and minimize through motor traffic. Traffic calming devices control traffic speeds discourage through trips by automobiles. Traffic controls limit conflicts between automobiles and bicyclists and give priority to through bicycle movement.

**Shoulder Bikeway:** These are paved roadways that have striped shoulders wide enough for

bicycle travel. ODOT recommends a 6-foot paved shoulder to adequately provide for bicyclists, or 4-foot minimum in constrained areas. Roadways with shoulders less than 4-feet are considered shared roadways. Sometimes shoulder bikeways are signed to alert motorists to expect bicycle travel along the roadway.

**Bike Lane:** A portion of the roadway designated specifically for bicycle travel via a striped lane and pavement stencils. The standard width for a bicycle lane is 6-feet. The minimum width of a bicycle lane against a curb or adjacent to a parking lane is 5-feet. A bicycle lane may be as narrow as 4-feet, but only in very constrained situations. Bike lanes are most appropriate on arterials and major collectors where high traffic volumes and speeds warrant greater separation.

**Multi-Use Path:** A paved pathway that is physically separated from the roadway and shared by all non-motorized users, including walkers, joggers, skaters, and bicyclists. In general, multi-use paths are desirable for recreational uses, particularly by families and children. They are also preferred corridors for bicyclists for both transportation and recreation purposes as they have few intersections or crossings and reduce the potential for conflicts with motor vehicles.

## 2. Existing Bikeway Locations

Existing bicycle lanes, shoulder bikeways, a bicycle boulevard, and multi-use paths make up the region's bikeway system, as shown on Map 5-7.

Within the Planning Area, there are approximately 97 miles of dedicated bikeways and 46% of arterial and collector roadways have bicycle facilities. Within Grants Pass, 51% of all arterials and collectors have bike facilities, and a dedicated bicycle boulevard runs north/south through the city from the Rogue River near Reinhart Park to Ogle Park at NE Midland Avenue. In the City of Rogue River 50% of arterials and collectors have bicycle facilities, and 66% in Gold Hill.

Traditional grid patterns and good street connectivity in the cities of Rogue River, Gold Hill, and north of the Rogue River in Grants Pass present options for bicyclists to travel throughout each of the urbanized areas on existing bikeways and shared roadways. Gaps and challenges do exist, however, which are described on the following pages.

In addition to the on-street facilities, the Planning Area also contains a 20-mile network of multi-use paths. Many are located on the south side of the Rogue River in Grants Pass, and also included is the Rogue River Greenway which currently connects the cities of Rogue River and Gold Hill (planned to continue west to Grants Pass and east to meet the Bear Creek Greenway in Central Point). All multi-use paths in the Planning Area are presented on Map 5-7.

Outside of the Grants Pass city limit, many of the arterials and collectors in unincorporated Josephine County that lie within the MRMPO have shoulders 4-feet wide or greater, meeting the definition of a bikeway.

## 3. Destinations for Bicyclists

Major destinations for bicyclists are primarily the same as those for pedestrians: downtowns,

schools, employment centers, shopping centers, neighborhood commercial areas, and parks/recreation areas. Connections to major destinations within the Planning Area are generally good. For example, a multi-use path connects the Rogue Community College to existing bikeways within the City of Grants Pass. Additionally, many of the collector streets serving public schools and parks throughout the Planning Area contain bike facilities which connect to surrounding lower-volume residential streets. Gaps and challenges do exist however, which are described below.

#### 4. Bicycle System Challenges

Recognizing and addressing the following deficiencies will improve the safety, quality, connectivity, and use of bicycling in the region by eliminating hazards, improving comfort, and completing regional connections:

**Substandard Facilities:** Some facilities in the region do not adhere to current design standards and best practices, for example, where a bicycle lane is provided on only one side of a roadway or is less than 4-feet wide. Identifying these facilities and planning a systematic modification and modernization program is a good next step. Many of these discrepancies will be eliminated as streets are brought up to standard.

Maintenance of bikeways also poses challenges, such as potholes, crumbling asphalt, and debris on roadway shoulders and in bike lanes.

**Gaps in the Bikeway System:** Although the bicycle facility network is fairly comprehensive in the Planning Area, there are a number of existing gaps that create challenges for cyclists. These gaps exist because of financial and/or political constraints. To close the gaps would require actions such as reducing vehicle lanes or widening roadways to allow for bike lanes, or purchasing right-of-way to construct separated, multi-use trails.

**Perceived Safety:** Public perception of the safety of bicycling has been shown to be the greatest barrier to bicycle use.

#### *Some Parking Strategies*

The state Transportation Planning Rule offers some options for meeting parking requirements, including:

- Reduce minimum off-street parking requirements for all non-residential uses from 1990 levels;
- Allow provision of on-street parking, long-term lease parking, and shared parking to meet minimum off-street parking requirements;
- Establish off-street parking maximums in appropriate locations, such as downtowns, designated regional or community centers, and transit-oriented developments;
- Exempt structured parking and on-street parking from parking maximums;
- Require that parking lots over 3 acres in size provide street-like features along major driveways (including curbs, sidewalks, and street trees or planting strips); and
- Provide for designation of residential parking districts.

Elements of bikeway and roadway design such as lower speed limits, wider bike lanes, lane buffers, and separated paths increase a bicyclists' sense of comfort, perceived safety – and likelihood of use.

**Future Development:** As the area grows, it is increasingly important to recognize the benefits of good connectivity for bicyclists and pedestrians. Developers should be encouraged to improve access and connectivity by implementing pedestrian and bicycle-friendly designs, like clear pathways from on-street facilities, bicycle parking, internal trail systems, and orienting storefronts to the roadway.

*It should be noted that a number of projects that include bicycle facilities in the Grants Pass area are expected to be constructed within the short and medium range years of the RTP. Additionally, a section of the Rogue River Greenway is planned for construction within the short range (2015 – 2020). Please refer to the RTP Project List for more information on upcoming projects that include bicycle facilities.*

## **E. Parking**

### **1. Introduction**

Oregon's Transportation Planning Rule (TPR) requires that metropolitan area jurisdictions reduce their overall parking capacity. A reduction in parking is part of an overall strategy to reduce reliance on automobiles as the principal mode of travel and to help achieve a reduction in per capita vehicle miles traveled. The challenge of this goal is to reduce the amount of parking in ways that help achieve the travel-reduction goal and are equitable for all parties involved.

Parking reduction strategies are proposed to help the metropolitan area meet the TPR requirements. Strategies include changes to parking codes and policies, re-designation of existing parking, and management of roadway space. Next, some potential results are discussed (limited data availability). Finally, some parking optimization techniques are presented, which may make it easier for motorists, employers, and employees to make use of available parking.

### **2. Parking Standards**

The TPR requires implementation of a parking plan that achieves a 10 percent reduction in the number of parking spaces per capita in the MPO area over the planning period. This may be accomplished through a combination of restrictions on development of new parking spaces and requirements that existing parking spaces be redeveloped to other uses.

Ultimately, the parking plan must aid in achieving the overall requirement to reduce vehicle miles traveled per capita (VMT) in the MPO area. In MPO areas of less than 1 million population, including the MRMPO, a 5 percent VMT reduction is required.

It is anticipated that metropolitan areas will accomplish reduced reliance by changing land use patterns and transportation systems so that walking, cycling, and use of transit are highly convenient and so that, on balance, people need to and are likely to drive less than they do today.

The requirement to reduce VMT as it relates to parking offers some options. Local jurisdictions may set minimum and maximum parking standards in appropriate locations, such as downtowns, designated regional or community centers, and transit centers.

### **3. Parking Code and Policy Changes**

Older parking regulations specified only minimum standards, and some developments, such as retail stores, to provide an excess of parking. In 2014, Grants Pass made significant reductions in parking standards. For example, the old residential parking standards were based on the number of bedrooms. A one bedroom home required 1 space, two bedrooms 1.5 spaces, three to four bedrooms 2 spaces, and five or more bedrooms 3 spaces. The code was revised to require 1 space per dwelling with no limit on the number of bedrooms. Hotels and motels went from 1 space per room to .75 spaces per room. The major change in Grants Pass parking standards is for retail uses that went from 5 spaces per 1,000 square feet of gross floor area to 2 spaces per 1,000 square feet (a 60% reduction). Finally, Grants Pass now allows for on-street parking to be counted toward the minimum parking requirements when it is on the block face abutting the subject use. Both Jackson County and the City of Rogue River have bike parking standards. Josephine County's parking standards allow for the applicant to set the number of parking spaces for their development, which in hard economic times, will likely result in fewer spaces than most codes would require.

#### **Lower Minimum Parking Requirements**

Lower parking minimums could have an impact on the total parking inventory, but there is no guarantee that developers would choose fewer parking spaces for their developments. Lower minimum parking requirements, however, might encourage some in-fill development. In-fill development can be encouraged to increase densities and remove land from its temporary status as parking lots. Both the reduction of existing parking and increasing building densities will help lead to a more pedestrian friendly environment and encourage transit ridership – a primary goal of the TPR.

#### **Parking Fees**

Establishment of parking fees is not a policy of the MRMPO, but fees can be useful in some jurisdictions. Fees imposed on developers for each parking space are an indirect way of reducing the amount of parking provided by new developments. Fees can be levied on the developer, the tenant, or the end-user. These are fees for either the use or provision of each parking space. Fees levied on the developer may lead to smaller parking lots due to monetary considerations when building the project. Fees on the tenant may encourage them to seek out retail or office space in areas with smaller lots, thus putting market pressure on developers to build with less parking. Fees on end-users may result in different modal choices, bringing down parking demand and leaving land open for in-fill development or smaller parking facilities. Fees are an indirect strategy and may be difficult or impossible to implement as a stand-alone TPR-compliance parking reduction measure. No jurisdictions within the MRMPO use parking fees as a strategy to reduce the number of parking spaces.

#### **Re-designation of Existing Parking**

Changing existing general-use parking spaces to special-use parking can be used to promote the use of alternative modes and meet the requirements of the TPR. General parking provided on-



street or in lots could be reclassified as preferential parking for carpools, or the handicapped. Preferential parking, especially close to building entrances, for carpooling or vanpooling is a common way of helping to promote these as alternatives to driving alone. Carpool parking need not be limited to parking lots. On-street parking spaces, including metered spaces, may be restricted to carpools. Typically, monthly permits are obtained and displayed when parked in a reserved carpool space in a lot or on the street.

As a side benefit, reclassification from general parking to carpool parking may help meet TPR requirements. Under TPR definitions, park and ride lots, handicapped parking and parking spaces for carpools and vanpools are not considered parking spaces for purposes of the TPR. The reclassification of a portion of the parking supply as permanent high occupancy vehicle (HOV) space may satisfy the TPR's parking reduction requirement.

In areas where easy access to free or low-cost parking has always been readily available, restrictions on parking may be poorly received by the public. Widespread conversion of general-use parking spaces to reserved parking for carpools or other restricted uses may lead to a high level of parking violations. This may place an undue burden on agencies for the enforcement of parking regulations at the expense of other activities.

### **Management of Roadway Space**

There is considerable competition for use of the paved roadway space: through lanes and turn lanes for motor vehicles, bicycle lanes, on-street parking spaces, loading zones, and bus stops. Management of the roadway space and the allocation for these uses can have a measurable impact on the amount of parking in the region. Changing parking spaces to travel lanes can help improve traffic flow, promote use of alternative modes, and meet the TPR requirements.

### **Parking and Bike Lanes**

Bike lanes on arterial and major collector streets are required under the provisions of the TPR. In many locations throughout the Middle Rogue region, this will be accomplished by parking removal and re-striping of the street, rather than by widening the roadway.

### **Parking and Turn Lanes**

Re-striping for turn lanes is a transportation system management strategy that can be used to increase the capacity of intersections. In many cases, queuing distances at stop signs or traffic signals will require that no-parking zones be extended for more than 100 feet from the intersection. This could require removal of parking, which is sometimes permitted as close as 20 feet from a crosswalk at an intersection.

### **No-Parking Zones**

Designating larger no-parking zones to increase sight distances at intersections is already implied in the vehicle code. Parking is not permitted within 50 feet of a stop sign, yield sign, or other traffic control device where such parking hides it from view. A blanket prohibition on parking within 50 feet of a corner would have a measurable impact on the number of parking spaces and would have other benefits related to sight distance.

### **Street Standards**

Adopting new street standards for residential streets could include reducing street width to the extent that on-street parking would be permitted only on one side or eliminated.

## **Parking Optimization**

There are techniques that can be used to make better use of parking, which may make it easier for residents, businesses, and employees to “live with” the parking reduction requirements of the TPR. However, optimizing the use of parking may defeat the other goal of the TPR, namely the reduction in per capita vehicle miles of travel. This is because the easy availability of free or low cost parking remains a significant factor in the individual’s choice of mode for trips to work, shopping, etc.

## **Shared Parking**

Shared parking is the use of one or more parking facilities between developments with similar or different land uses. Each land use experiences varying parking demand depending on the time of day and the month of the year. It is possible for different land uses to pool their parking resources to take advantage of different peak use times.

Traditionally, parking lots have been sized to accommodate at least 90 percent of peak hour and peak month usage and serve a single development. For the most part, these lots are operating at a level considerably less than this amount. Shared parking schemes allow these uses to share parking facilities by taking advantage of different business peak parking times.

For example, a series of buildings may include such land uses as restaurants, theaters, offices, and retail – all of which have varying peak use times. A restaurant generally experiences parking peaks from 6 to 8 p.m., while offices typically peak around 10 a.m. and again around 2 p.m. on weekdays. Some retail establishments have their peak usage on weekends. Theaters often peak from 8 to 10 p.m. Without a shared parking plan, these uses would develop parking to serve each of their individual peaks. This generally results in each lot being heavily used while the other lots operate at far less than capacity. Depending upon the combination of uses, a shared parking plan may allow some developments to realize a parking reduction of 10-15 percent without a significant reduction in the availability of parking at any one time. This is possible due to the different peak periods for parking.

Some of the major obstacles to implementing shared parking schemes are the codes of local jurisdictions themselves. Quite often, parking codes are written to express parking minimums as opposed to maximums. In some cases, the implementation of shared parking strategies may require changes to the minimum parking requirements contained in the parking policies of the metropolitan area jurisdictions.

Other issues surrounding shared parking are liability, insurance, and the need for reciprocal access agreements allowing patrons of one establishment to cross land owned by another. Rogue River, Gold Hill, and Jackson County allow for shared parking with Planning Commission approval.

## **Parking Management**

Parking management and parking management associations (PMAs) are mechanisms that can facilitate shared parking among non-adjacent land uses by providing off-site central parking facilities. These facilities can be large parking structures or surface lots. Parking management can employ a wide range of techniques that will result in the efficient use of existing parking facilities. These include facilities like short-term on-street parking, medium-term nearby lot parking, High Occupancy Vehicle (HOV) priority parking, and long-term parking.

PMA's are entities responsible for conducting this management and providing access to resources that will ease the burden on the parking supply. Often PMA's are non-profit groups supported by retail or business district associations. PMA's can incorporate such programs as providing bus passes or tokens in lieu of parking validation, delivery services, shuttle buses from remote lots, clear and consistent signage for parking facilities, etc.

An effective PMA benefits its members and its district by functionally increasing the parking supply for all uses and creating a parking plan that provides adequate parking for the area in a compact and coherent way. A PMA increases the efficiency of the use of land for parking, which helps reduce wasted space previously dedicated to underutilized parking. This, in turn, frees up land for further development. In the end, a successful PMA can create an area where parking is easier and more convenient, while using less land.

*“The MRMPO is starting a Transportation Options (TO) program with assistance from the Rogue Valley Transportation District (RVTD).”*

## F. Transportation Options

### 1. Introduction

The MRMPO is starting a Transportation Options (TO) program with assistance from the Rogue Valley Transportation District (RVTD). 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).

*“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.”*

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.

### **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)).

### **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**

Some of the 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;
- Public outreach activities to promote TO and non-SOV transportation modes;
- Free assistance through the Drive Less Connect program with carpools, vanpools, 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;

- Trip Reduction Incentive Programs- Through the Drive Less Connect program by creating 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; 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 discussed in the Transit section of 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
- 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

## G. Air Facilities

### 1. Public Air Facilities

The Grants Pass Municipal Airport is an Oregon Aviation Department designated Category III Regional General Aviation Airport that is located approximately five miles northwest of Grants Pass. Approximately 150 aircraft are based at the facility. In 2011, the Board of Commissioners adopted a Public Use Airport and Safety Overlay Zone conforming to the Oregon Administrative rule Airport Planning Rule. An Airport Master Plan was also drafted during this period.

The Medford-Jackson County International Airport is a public use airport located in Medford, and approximately 27 miles from Grants Pass. It is owned and operated by Jackson County's Aviation Authority and is the largest public airport serving Southern Oregon. In terms of commercial passenger boarding, it is the third busiest airport in Oregon.

Currently, the only public transportation provider serving Josephine County with service to the Medford Airport is the Southwest Public Oregon Intercity Transit shuttle (SW POINT shuttle).

### 2. Private Air Facilities

No private airports or airstrips exist within the Planning Area. Private airstrips within 20 miles of the MRMPO boundary are located in or near the communities of Selma, Wonder, Wimer and Medford.

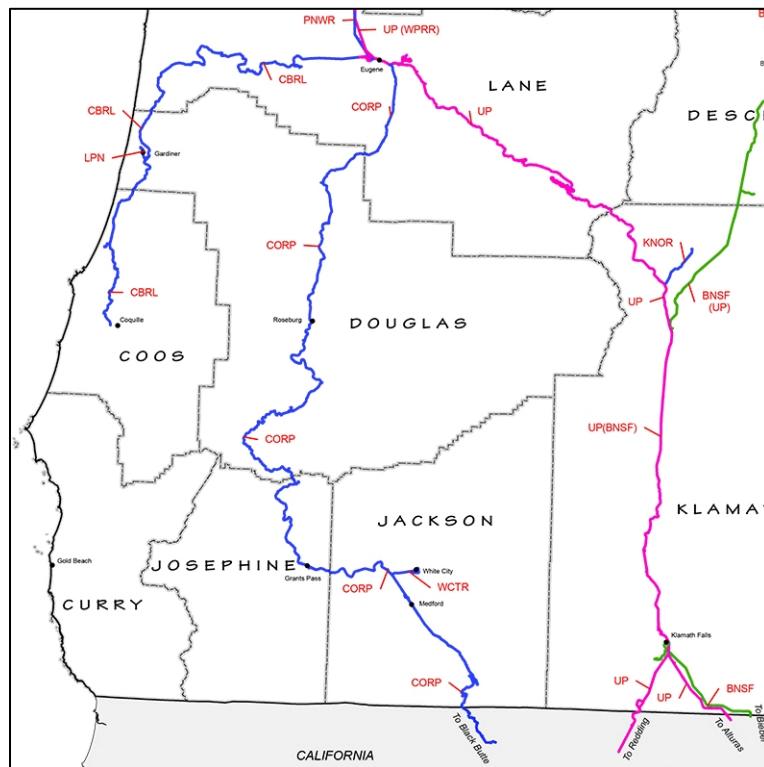
## H. Rail System

### 1. Freight Rail

The Central Oregon and Pacific Railroad (CORP) is a Class II railroad (determined by revenue) that operates between Northern California and Eugene, Oregon with interchanges to the Coos Bay Rail Link, Union Pacific, White City Transfer Rail, and the Yreka Western Railroad. Traffic on CORP is approximately 16,000 cars predominately moving lumber, logs and plywood of national account lumber companies. Within the Planning Area, the rail line primarily follows the course of the Rogue River running through all cities within the MPO including Merlin.

The Siskiyou rail line is part of CORP, extending from Weed, California to Eugene, Oregon. The Siskiyou line has not been used since 2008. However, construction to upgrade the rail line is expected to be completed by Fall 2015. The reopening of this section of line is expected to renew and improve interstate freight rail options. It will allow Southern Oregon access to the Union Pacific mainline at Weed, California (access currently diverted through Eugene) and provide transportation options for the delivery of Southern Oregon lumber and manufactured goods.

**Figure 5-3: Southwest Oregon Rail Lines**



## 2. Passenger Rail

There is no passenger rail service within the Planning Area. The nearest Amtrak train station is located in Klamath Falls, approximately 100 miles from Grants Pass. Amtrak (Amtrak Cascades and Coast Starlight services) stops in Eugene and travels both north to Vancouver, British Columbia, and south to San Diego, California (Coast Starlight train only). Currently, both Greyhound and Southwest POINT shuttle provide service from Grants Pass to the Amtrak station in Klamath Falls.

From 2001 to 2007, the MPO for the Medford Urbanized Area, the RVMPO, had commissioned a number of studies examining commuter rail service using the CORP line between Ashland and Central Point, including an extension to Grants Pass. Additionally, in 2010, ODOT had published the Intercity Passenger Rail Assessment that included examining the feasibility of Eugene to Ashland intercity passenger rail service using the CORP line. The conclusions of all studies noted challenges primarily related to costs vs. estimated passenger numbers, as well as delays associated with CORP priority for freight with construction of a new rail line being cost prohibitive.

More recently, passenger rail service to Grants Pass is discussed in the *Oregon State Rail Plan (2014)*, which notes that out of travel markets not currently served by passenger rail, Southern Oregon (specifically, MRMPO to/from RVMPO) has good potential given its high percentage of interregional travel. This is based on data analyzed from the Oregon Household Activity Survey.

## 3. At-Grade Rail Crossings

All of the rail crossings in the Planning Area are at-grade, with the exception of the Redwood Highway overpass in Grants Pass and the I-5 overpass at Foothill Boulevard in Jackson County. At-grade crossings can cause conflicts between trains and vehicles, pedestrians, and bicyclists, as well as delays for roadway users, especially during peak traffic periods.

# I. Waterways and Pipelines

## 1. Waterways

The Rogue River and Applegate River are the only navigable waterways within Planning Area boundaries. Within the Planning Area, both rivers are used for active and passive recreation, but most recreation occurs on the Rogue. Neither river is currently used for commercial navigation.

## 2. Pipelines

The Northwest Pipeline, a major interstate natural gas pipeline system, terminates in Grants Pass. The lateral provides natural gas service to Avista Corp, a local natural gas distribution company in Grants Pass. Avista's pipeline system provides service to the southern Oregon region. Transmission lines for electricity, telephone, cable, and internet service exist throughout the Planning Area. Water pipelines convey water from the Rogue River and the Grants Pass Irrigation District owns a water distribution system providing water for lands in the Rogue Valley. There are no known capacity constraints for pipeline or transmission line service within Planning Area boundaries.

## J. Plan Consistency

### 1. Local Transportation Plans

In the MRMPO Planning Area, the RTP also serves as the region's Transportation System Plan (TSP) as required under Oregon land-use law. Oregon's Statewide Planning Goal 12 and its implementing division, the Transportation Planning Rule (TPR) (OAR Chapter 660, Division 12) requires such a plan. By adopting the RTP the MRMPO Policy Committee is not taking a land-use action under state law. Rather, local jurisdictions direct transportation policy and planning through adoption of their comprehensive plans, TSPs, and local street network plans.

The RTP draws projects from jurisdictions' TSPs and local street network plans, and so is consistent with those plans. The RTP will be implemented by local jurisdictions through the TSPs and local development-review processes. The RTP horizon, as required by federal law, extends beyond the horizons of the local plans, so not all long-range projects and strategies that could be in the RTP are identified. This means that the system performance analysis should be considered only for this plan. As jurisdictions update their TSPs, new projects will be added to the RTP. The RTP's frequent update cycle readily accommodates changes to local plans. The updates are intended to ensure that the regional plan can adapt to changing needs and circumstances.

### 2. State Transportation Plans

The RTP also must be consistent with Oregon Department of Transportation plans, including the 2006 Oregon Transportation Plan (OTP) and the Highway Plan. The OTP provides a framework for policy objectives including expansion of ODOT's role in funding non-highway investments, maintaining the assets in place, optimizing the existing system performance through technology and better system integration, creating sustainable funding and investing in strategic capacity enhancements.

The OTP has four sections: (1) Challenges, Opportunities, and Vision; (2) Goals and Policies; (3) Summary of Financial and Technical Analyses; and (4) Implementation. The OTP meets a legal requirement that the OTC develops and maintains a plan for a multimodal transportation system for Oregon. The OTP also implements the federal requirements for a state transportation plan, and meets land use planning requirements for state agency coordination and the TPR. The transportation rule requires ODOT, the cities, and the counties of Oregon, as well as MPOs, to cooperate and to develop balanced transportation systems.

The Oregon Highway Plan establishes long-range policies and investment strategies for the state highway system. The Oregon Transportation Commission adopted the Oregon Highway Plan on March 18, 1999.

The plan contains the following elements:

- **Vision** – presents a vision for the future of the state highway system, describes economic and demographic trends in Oregon and future transportation technologies and demographic trends in Oregon and future transportation technologies, summarizes the

policy and legal context of the plan, and contains information on the current highway system.

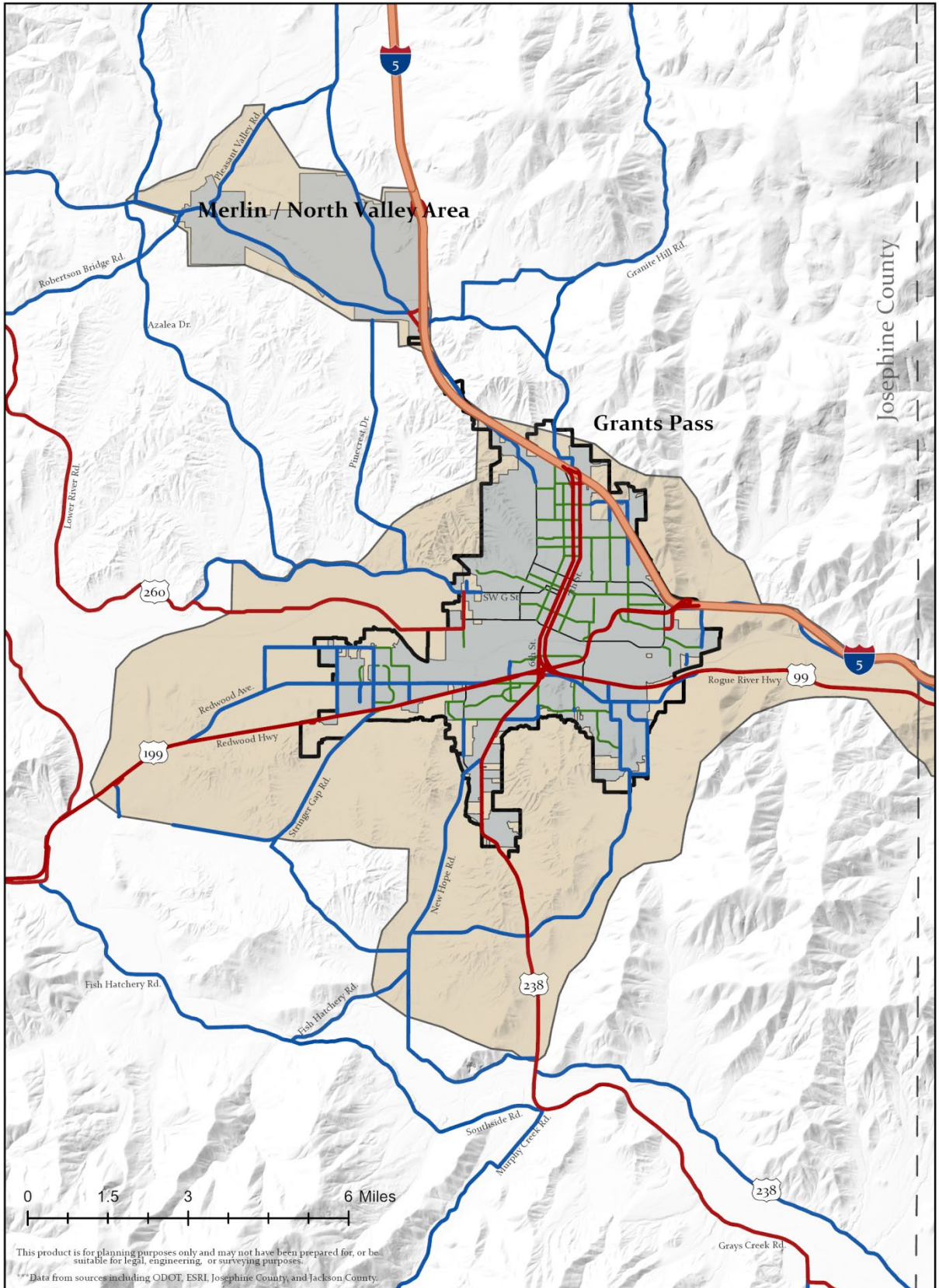
- **Policy** – contains goals, policies and actions in five areas: system definition, system management, access management, travel alternatives and environmental and scenic resources.
- **System** – contains analysis of state highway needs, revenue forecasts, descriptions of investment policies and strategies, implementation strategy and performance measures.

Goals and policies of state transportation plans are considered in the development of the MRMPO's RTP Goals and Policies.

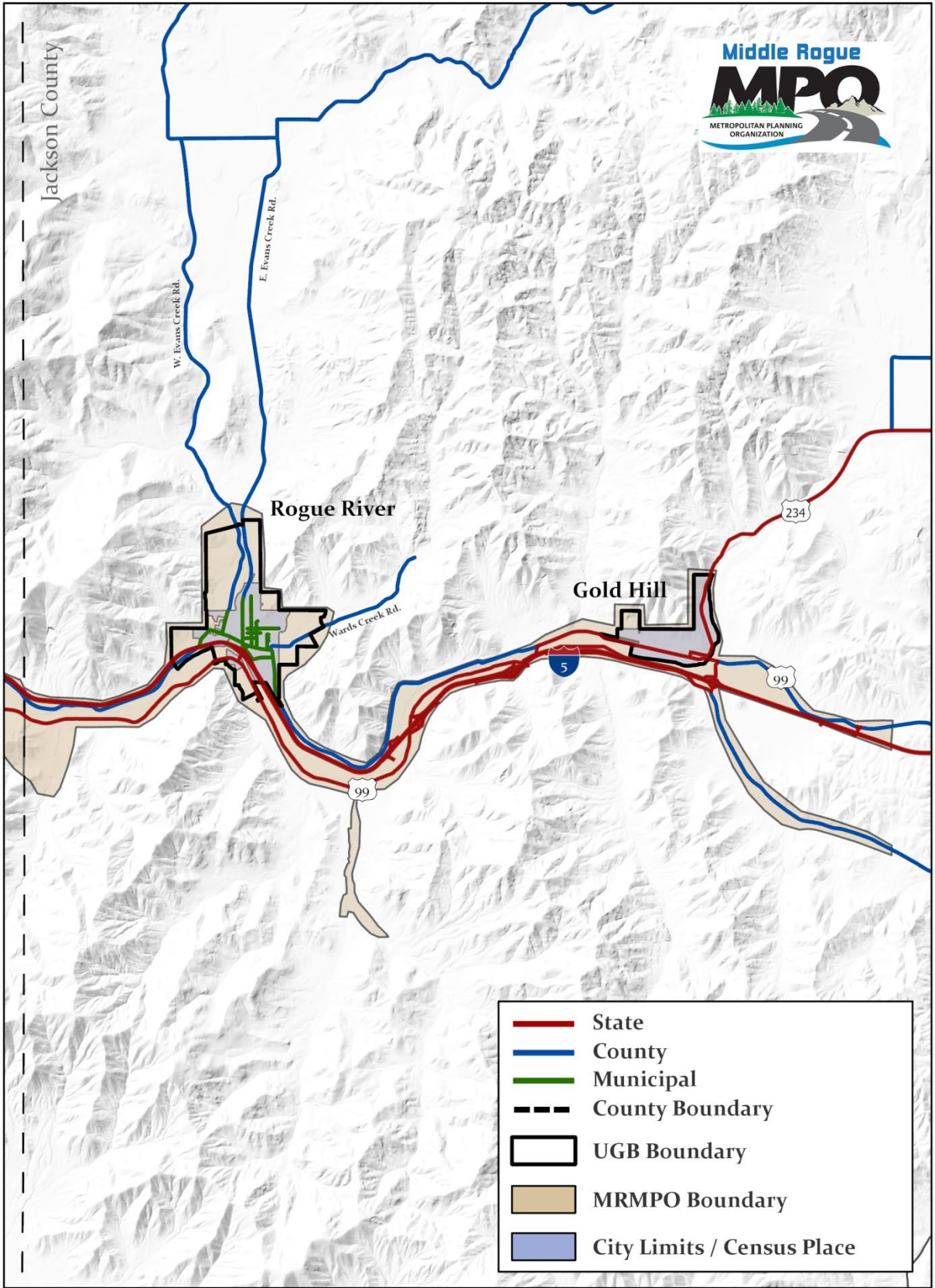
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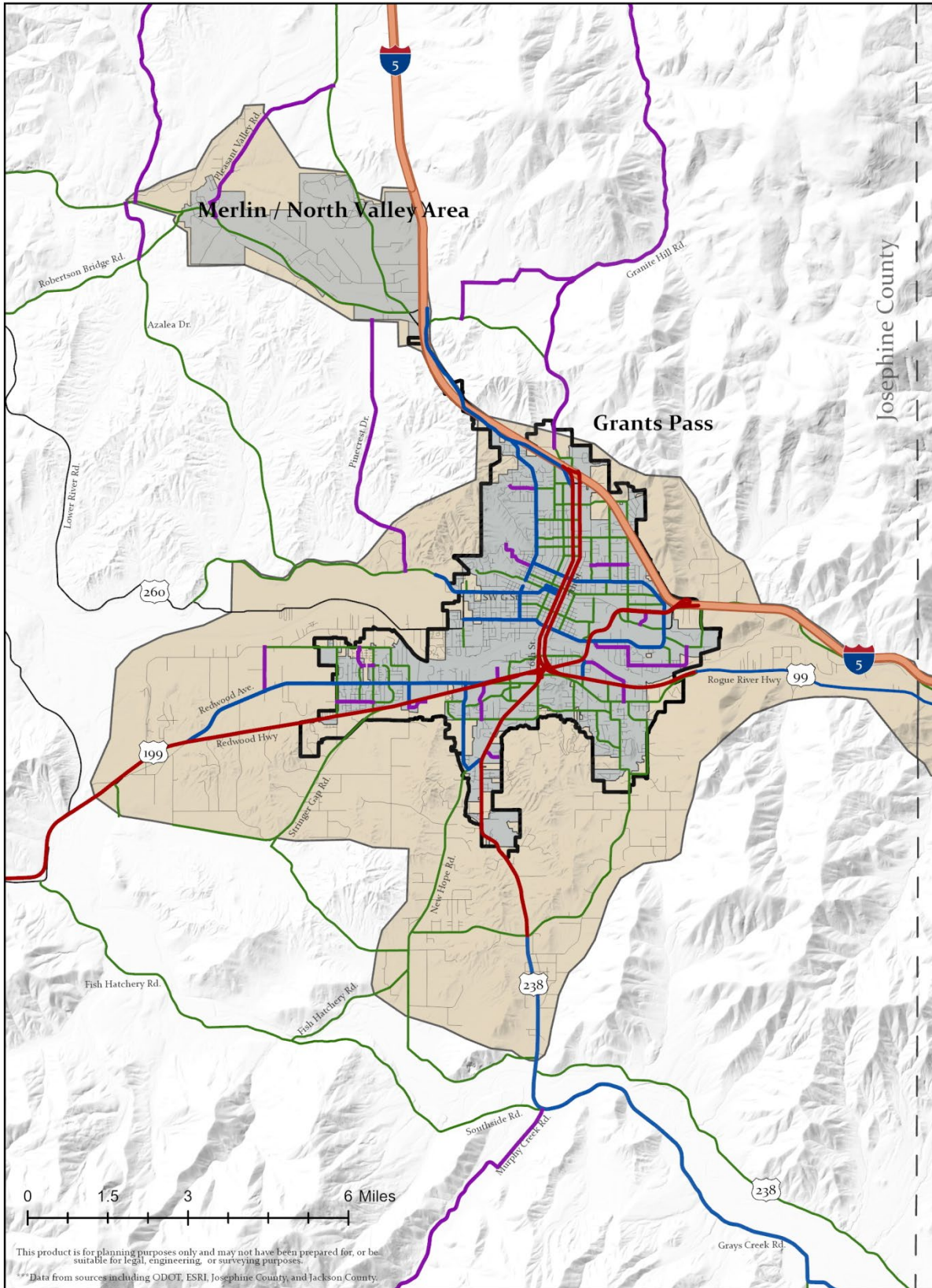
# Map 5-1 – Roadway Jurisdiction

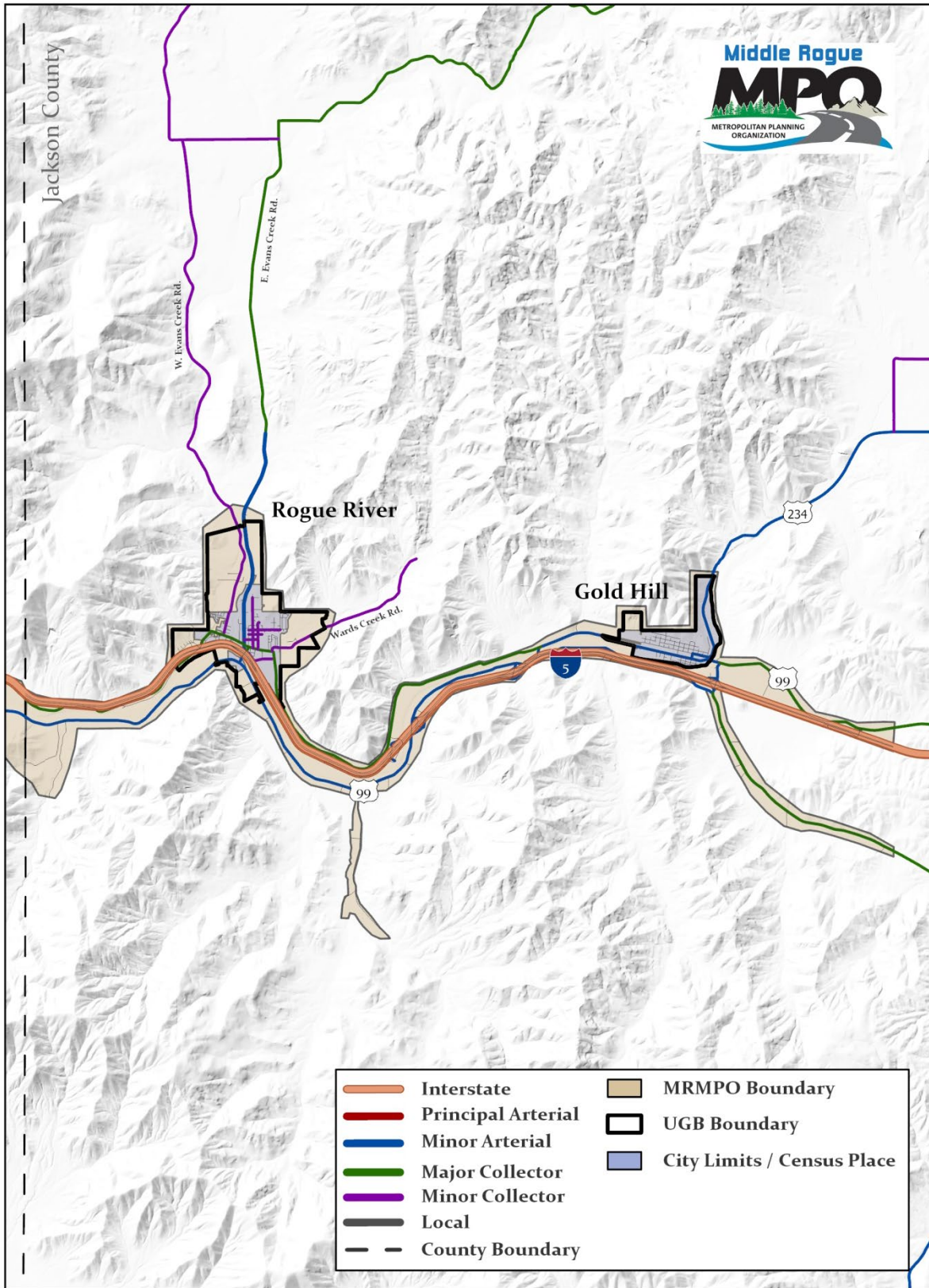




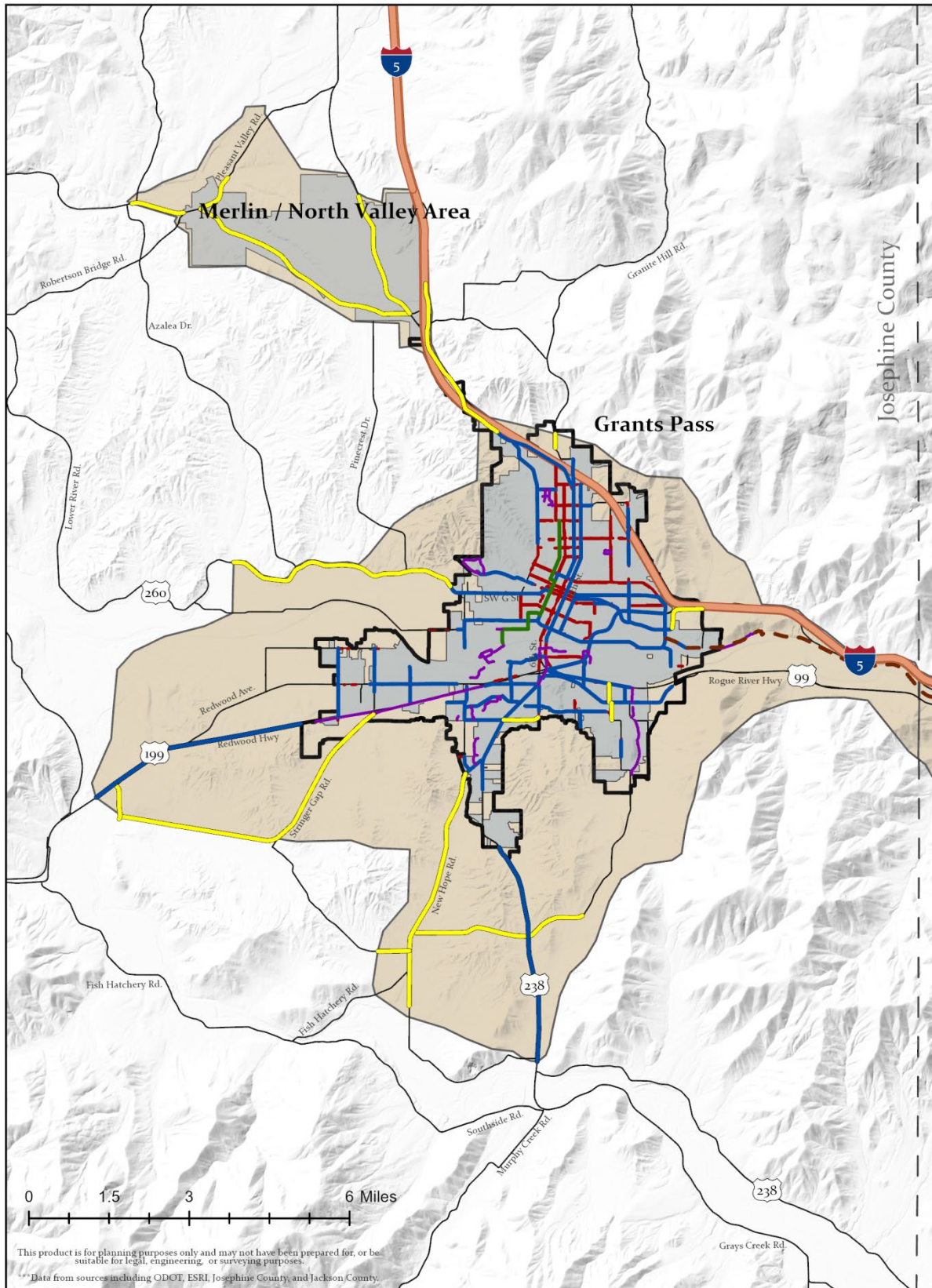


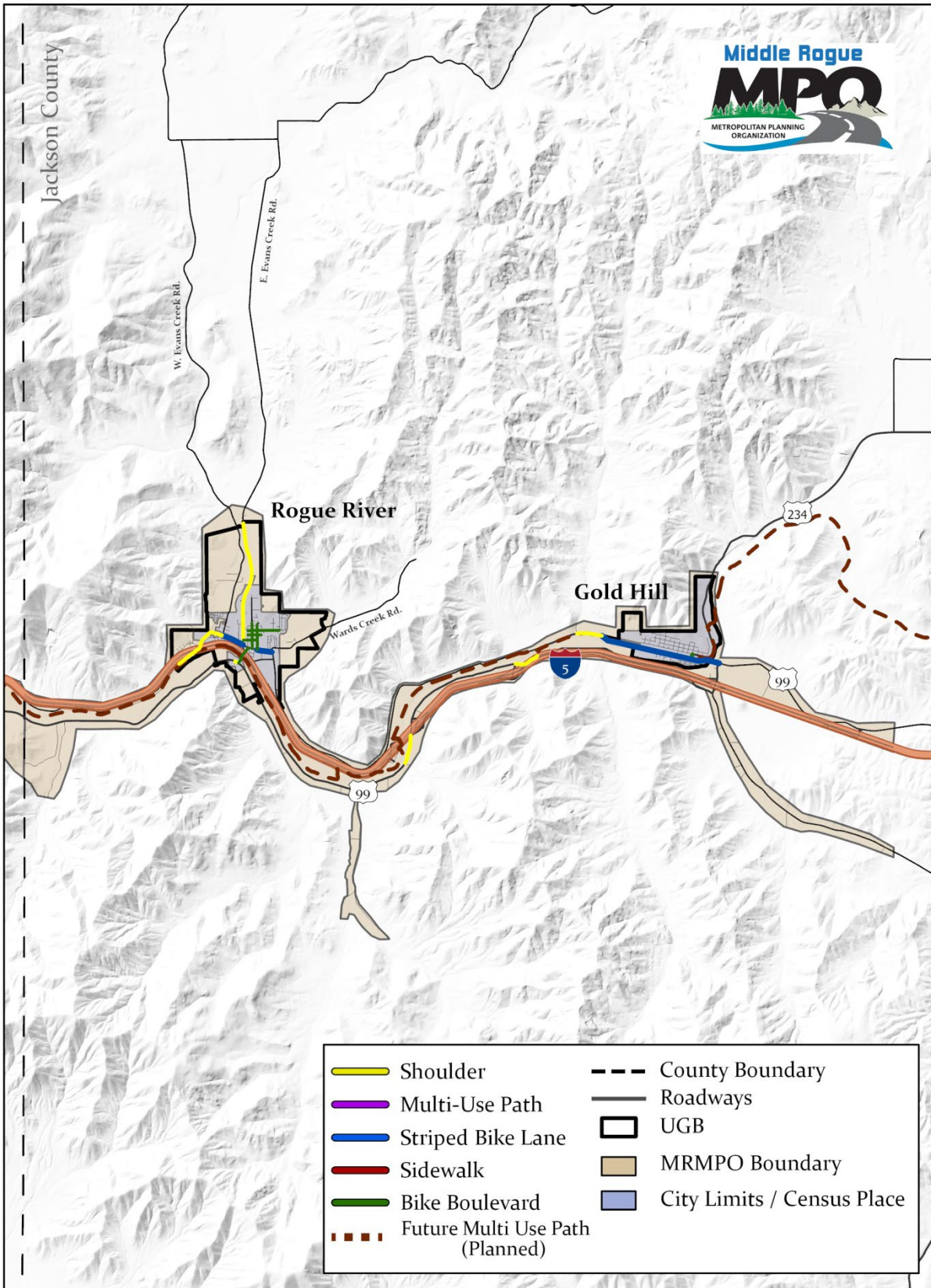
**Map 5-2 – Functional Classification**



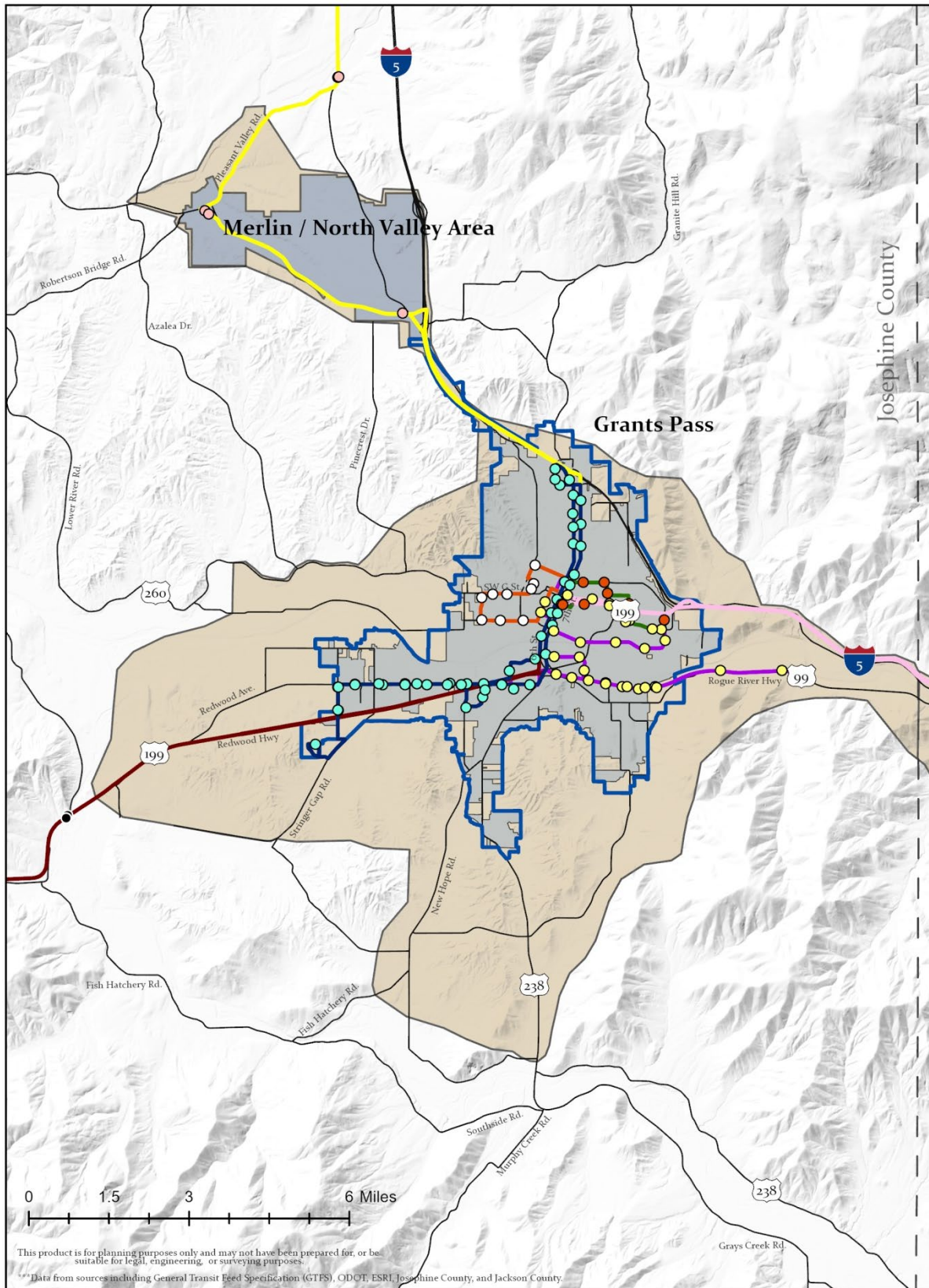


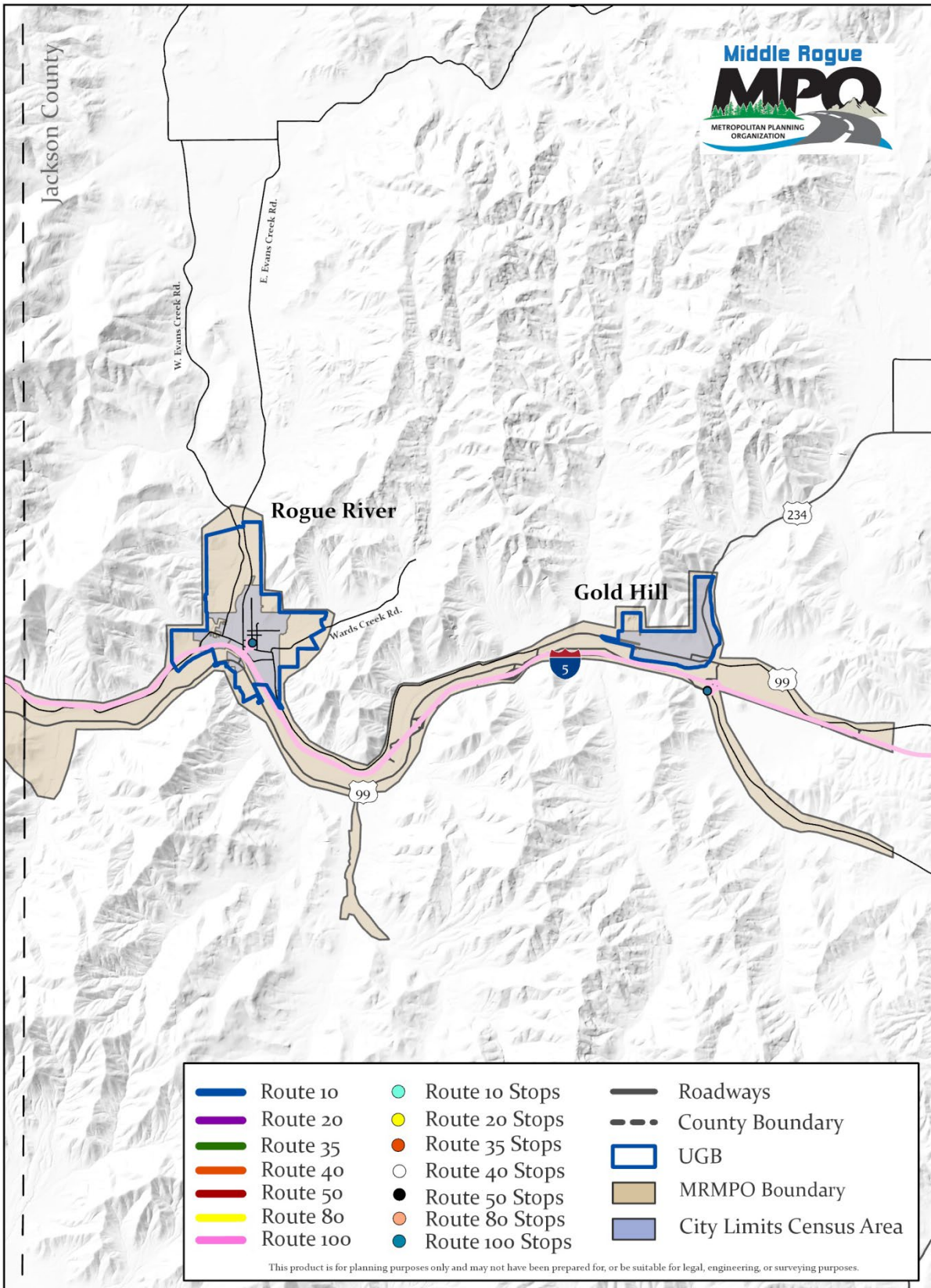
# Map 5-3 – Bicycle and Pedestrian Systems





# Map 5-4 – Transit Routes





# Chapter 6 – Plan Implementation

This section shows how the goals and policies in Chapter 2 are implemented through procedures and criteria that the MRMPO uses to identify projects. The sections in this chapter contain and address: how and what projects are listed in the RTP, the criteria used by the MRMPO to fund projects, and the RTP Project List located at the end of the chapter.

## A. Projects in the RTP

Requirements for metropolitan plans are described in Federal Highway Administration rules, 23 CFR Part 450.322. The plan must show through a horizon of at least 20 years the capital investment, operations and management strategies planned to lead to an integrated multimodal transportation system. Funding for all projects shown in the plan must be identified, or there must be a reasonable expectation for funding; meaning that the RTP Project List must be financially constrained.

The MRMPO developed the funding expectations for this plan in consultation with ODOT and the member jurisdictions. The estimates are the best available at the time, but are likely to change – especially in the long-range years (2036-2045). Details about the financial planning process and funding sources are shown in Chapter 8 *Financial Plan*.

It is important to note that not all transportation projects planned within the region are contained in this plan. Numerous local improvements are planned and implemented solely by the jurisdiction. Such projects are undertaken through the local Transportation System Plan (TSP), a state planning document required under Oregon land use law and generally incorporated into the local Comprehensive Plan.

Federal transportation planning regulations specify what types of projects to be included in the Regional Transportation Plan (RTP). These projects are:

*“Regionally significant projects” are defined as being on a facility that serves regional transportation needs, such as access to an area outside the region, major activity centers in the region, major developments and planned developments.*

- **Any regionally significant project, regardless of funding source;**
- **Any project that will require federal environmental clearance;**
- **Any project that will be programmed in the TIP; and**
- **Any project that will receive state or federal transportation funds.**

The Clean Air Act further defines the projects that must be included in MPO plans and included in analysis for the transportation conformity process. Because areas of the MRMPO have been designated by the Environmental Protection Agency as

“attainment and maintenance areas” for carbon monoxide and particulates, Clean Air Act requirements must be met in this plan (see details in Chapter 9 *Air Quality* and in the *Air*



*Quality Conformity Determination*, published separately).

### **1. Local Jurisdiction Transportation System Plans**

Transportation planning begins in the local jurisdictions through the state-required Transportation System Plans. These plans identify local goals, existing and future system deficiencies and needs, and describe the projects that will be undertaken to address those needs, generally over a 20-year period. Public input is a key component of the TSP process. Plans reflect the kind of transportation system the public believes the region should have. Because of the significance of the TSPs in the MRMPO, the MRMPO has followed a policy of drawing projects for the RTP Project List from the local TSPs.

The MRMPO planning process considers TSPs from a regional level, focusing primarily on improvements to roads – including construction of bicycle lanes, sidewalks and landscaping – and transit that serve the regional travel need.



### **2. Projects Not Specifically Identified in the RTP**

Oregon DOT Region 3 serves Coos, Curry, Douglas, Jackson, and Josephine County. The Region is subdivided into two separate Districts: District 7 - comprised of Coos, Curry, and Douglas Counties, and District 8 - comprised of Jackson and Josephine Counties. Beyond the capacity enhancement projects individually identified in the RTP, the RVMPO expects that ODOT Region 3 will expend additional dollars on projects classified under three categories: preservation, safety, and operations.

Preservation projects include, but are not limited to, projects such as: repaving of roadways, culvert replacements and installations, restriping of lanes, roadway treatments such as adding asphalt sealant and guardrail repairs.

Safety projects include, but are not limited to, projects such as: guardrail installation, restriping of lanes and/or reconstruction of lanes to promote safer vehicular movements along a road and/or through an intersection, installation of warning/caution signage, lane reflectors, rumble strips, etc.

Operation projects include, but are not limited to, projects such as: interconnection of traffic signals to promote more efficient operations of critical roadways, installation of Variable Message Signs along critical corridors, and/or interstates and TDM strategies.

Utilizing revenue estimates for the years 2013 through 2024, as provided by ODOT, MRMPO staff developed a yearly funding projection out to the year 2045 with an inflation rate of 2% applied to the average of the trend numbers for each category. Although ODOT does not program the funding by county and/or MPO in these broad categories the table below is a rough calculation of the totals per category.

Preservation	\$	168,983,913
Safety	\$	121,312,600
Ops	\$	120,216,082

Although Region 3 is comprised of two districts, the majority of the population is in District 8. Over a ten year period it is anticipated that roughly 60% of the funds in the three categories identified above may be spent in District 8 and roughly 40% will be expended in District 7.

## B. Project Selection Criteria

There are two project funding sources over which the MRMPO has discretion. Both are federal programs funded through the Highway Trust Fund. They are the Surface Transportation Block Grant Program (STBG), a flexible funding source where funds can be spent on a variety of transportation related projects; and the Congestion Mitigation and Air Quality (CMAQ) program, to deal with transportation related air pollution. Details of these two funding programs can be found in Chapter 8 *Financial Plan*, and in Chapter 9 *Air Quality*.

The MRMPO has developed criteria for evaluating and scoring applications for STBG performance categories:

- **Mobility**
- **Community Vitality and Livability**
- **Transportation Options**
- **Resource Conservation**

More than 18 project evaluation criteria have been developed related to the above performance categories. Each criterion has guidelines on how it would be applied in project evaluation. Table 6.1 further describes the performance categories.

**Table 6.1 – Policy Foundation for MRMPO Project Selection** (established prior to RTP adoption)

<b>MRMPO Recommended Goals and Objectives</b>		
<b>1: Mobility</b>		Plan for, develop and maintain a balanced multi-modal transportation system to address existing and future needs.
		Optimize safety and security of the transportation system.
<b>2: Community Vitality &amp; Livability</b>	Continue to work toward more fully integrating transportation and land use planning.	Use transportation investments to foster compact, livable communities. Develop a plan that builds on the character of the community, is sensitive to the environment and enhances quality of life.
		Use transportation investments to foster economic opportunities.
<b>3: Transportation Options</b>	Increase integration and availability of transportation options.	Use incentives and other strategies to reduce reliance on single-occupant vehicles.
<b>4: Resource Conservation</b>	Incorporate environmental and energy conservation into the MRMPO planning process.	Maximize efficient use of transportation infrastructure for all users and modes.
		Encourage use of cost-effective emerging technologies to achieve regional transportation goals.

### 1. Evaluation and Review

Evaluation procedures were developed by the MRMPO technical advisory committee and staff, and adopted by the Policy Committee. Projects are initially evaluated by staff, and those results as well as applicant information and evaluation materials are posted on the MRMPO website and advertised for public comment. The TAC reviews all materials (applications and staff evaluations) and makes any agreed upon adjustments. The TAC then will make their final funding recommendation to the Policy Committee, with the Policy Committee making all final project funding decisions.

### C. RTP Project List

This section of Chapter 6 shows all RTP projects by jurisdiction. These projects provide facilities for motorists, buses, bicyclists and pedestrians. They serve long-range needs for mobility and accessibility based on anticipated development.

Projects listed (referred to as Tier 1 projects) do not represent all of the transportation actions anticipated. Each jurisdiction will plan and carry out a multitude of local projects, which don't meet the criteria to be part of the MRMPO process. The local activities are based on the local Transportation System Plans (TSPs), which cities and the counties develop as part of their state comprehensive planning obligations. The MRMPO projects are first identified in the local TSPs.

This plan identifies nearly \$27 million expected to be available to invest in the regional transportation system through 2045. Details about the financial assumptions used to calculate these sums and financially constrain the projects in this chapter are provided in Chapter 8.

*Financial Plan.*

**1. Project Timing**

The project lists on the following pages provides a brief description of the work to be done, estimated cost based on year of construction or implementation (inflation adjusted) and the timing.

Projects are scheduled by the following timeframes:

- **Short Range – Between 2021 and 2024**
- **Medium Range – Between 2025 and 2035**
- **Long Range – Between 2036 and 2045.**

The project number, or “RTP number”, shown in the left hand column are internal tracking numbers for project identification within the MRMPO. As projects are implemented they are added to the MRMPO programming document, the Transportation Improvement Program (TIP) and forwarded into ODOT’s Statewide Transportation Improvement Program (STIP) for authorization to proceed. At the TIP-STIP stage, projects receive a programming Key Number, which differs from RTP numbers. The key number is useful for tracking projects through implementation.

Map 6.1 shows project locations by RTP number and is located at the end of this chapter, immediately following the project lists.

Table 6.2 – RTP Project List by Jurisdiction, Short Range Projects (2021 – 2024)

PROJECT NUMBER	LOCATION	DESCRIPTION	TIMING	COST	Conformity Status	Project Located in CO or PM10 Maintenance Area?
<b>Funds Available - Short Range</b>						
<b>Gold Hill</b>						
GH-001	Street Paving/ADA ramps		Short	\$40,000	Exempt	NA
<b>Short Range Total</b>					<b>\$40,000</b>	
<b>Grants Pass</b>						
GP-001	Expanding Access to Transit - Sidewalk Construction	Install 4 miles of sidewalks, replace missing/non-conforming sidewalks, Install stop sign/amenities (funds obligated prior to MPO designation)	Short	\$1,581,349	Exempt	PM <sub>10</sub>
GP-002	Allen Creek Rd. Improvements	Allen Creek Rd. from W. Harbeck to Denton will be upgraded to City Arterial standards (CMAQ & STP funds awarded prior to MPO designation).	Short	\$5,820,000	Exempt	PM <sub>10</sub>
<b>Short Range Total</b>					<b>\$7,401,349</b>	
<b>Jackson County</b>						
<b>Short Range Total</b>					<b>\$0</b>	
<b>Josephine County</b>						
JoCo-001	Highland Avenue	Sidewalk Improvements-Cooke Ave. to Vine Street	Short	\$352,200	Exempt	NA
JoCo-002	Beacon Drive	Full Depth Pavement Repair and Sidewalk Improvements-Madrone Ave. to Quail Crossing	Short	\$506,300	Exempt	NA
JoCo-003	New Hope Road	Sidewalk Infill Improvements-Bayard Dr. to Allen Crk	Short	\$169,500	Exempt	NA
JoCo-004	G Street	Sidewalk Infill Improvements-Lincoln Road to Leonard St.	Short	\$276,000	Exempt	NA
JoCo-005	Merlin Road	Bicycle Rail Crossing Improvements	Short	\$60,000	Exempt	NA
JoCo-006	Lincoln Rd./Lower River Rd.	Curb Ramps Transfer Agreement	Short	\$600,000	Exempt	NA
JoCo-007	Upper River Road	Cattle Undercrossing Removal	Short	\$60,000	Exempt	NA
JoCo-008	Josephine County	Safety Improvements, Phase II-Install curve warning signs, Various locations	Short	\$199,351	Exempt	NA
<b>Short Range Total</b>					<b>\$2,223,351</b>	
<b>Short Range RTP Total</b>					<b>\$9,664,700</b>	

Table 6.3 – RTP Project List by Jurisdiction, Medium Range Projects (2025 – 2035)

PROJECT NUMBER	LOCATION	DESCRIPTION	TIMING	COST	Conformity Status	Project Located in CO or PM10 Maintenance
<b>Grants Pass</b>					<b>Funds Available - Medium Range</b>	
<b>Gold Hill</b>						
0		No Medium Range Projects	No Medium Range Projects	Medium		
<b>Medium Range Total</b>						
<b>Grants Pass</b>						
GP-003		Leonard Road: Darnelle Lane to Devonshire	Full reconstruction of collector. 42' wide, bike lanes and sidewalk.	Medium	\$2,859,700	Exempt PM <sub>10</sub>
GP-004		Leonard Road: Dowell Road to Moon Glo Drive	Miscellaneous Sidewalks	Medium	\$146,500	Exempt PM <sub>10</sub>
GP-005		Bridge Street: Cottonwood to 4th Street	In-Fill sidewalks	Medium	\$505,600	Exempt PM <sub>10</sub>
<b>Medium Range Total</b>						
<b>Jackson County</b>						
JaCo-001		East Evans Creek Rd: Rogue River - Pleasant Cr.	Upgrade to rural major collector	Medium	\$2,890,000	Non-Exempt NA
<b>Medium Range Total</b>					<b>\$2,890,000</b>	
<b>Josephine County</b>						
JoCo-009		Lincoln Road	Street Improvements-G Street to Bridge St.	Medium	\$4,000,000	Exempt NA
<b>Medium Range Total</b>					<b>\$4,000,000</b>	
<b>Rogue River*</b>						
RR-001		Depot & Pine Street Intersection	Convert Pine St as through movement & Depot St to one-way	Medium	\$81,000	Exempt NA
RR-002		Pine & Main Street	Intersection improvement (Realigning, Signalize)	Medium	\$2,290,000	Exempt NA
RR-003		SB I-5	Lengthen ramp & queue storage, and widen I-5 bridge over Evans Creek	Medium	\$2,276,000	Exempt NA
RR-004		NB I-5	Add right turn lane	Medium	\$619,000	Exempt NA
RR-005		Depot & Main St	Convert Depot St to one-way	Medium	\$30,000	Exempt NA
<b>Medium Range Total</b>					<b>\$5,296,000</b>	
<b>Medium Range RTP Total</b>					<b>\$12,186,000</b>	



Table 6.4 – RTP Project List by Jurisdiction, Long Range Projects (2036 – 2045)

PROJECT NUMBER	LOCATION	DESCRIPTION	TIMING	COST	Conformity Status	Project Located in CO or PM10 Maintenance Area?
<b>Funds Available - Long Range</b>						
<b>Gold Hill</b>						
0	No Long Range Projects	No Long Range Projects	Long			NA
<b>Long Range Total</b>						
<b>Grants Pass</b>						
GP-006	Fruitdale Drive: Parkdale Drive to Cloverlawn Drive	Full reconstruction of collector. 42' wide, bike lanes and sidewalk.	Long	\$2,209,800	Exempt	PM <sub>10</sub>
GP-007	Lincoln Road: Bridge to G Street (design/ROW)	Full reconstruction of arterial with TWLTL	Long	\$3,500,000	Exempt	PM <sub>10</sub>
GP-008	Rogue River Highway: Hamilton to Fruitdale (Design/ROW)	Full reconstruction of arterial with TWLTL	Long	\$1,575,000	Exempt	PM <sub>10</sub>
GP-009	G Street: Lincoln Road to Leonard Street	Full reconstruction of arterial to include TWLTL, bike lanes, sidewalks, parking one side.	Long	\$890,000	Non-Exempt	PM <sub>10</sub>
GP-010	Shutzwohl Lane: West Hanbeck Road to Dowel Road (design/ROW)	New Collector Street	Long	\$2,500,000	Non-Exempt	PM <sub>10</sub>
GP-011	Vine Street: Highland Ave to Hawthorne Ave (design/ROW)	Full reconstruction of arterial to include bike lanes and sidewalks.	Long	\$1,250,000	Exempt	PM <sub>10</sub>
GP-012	Dimmick Street: Bellevue to G Street Design/ROW)	Full reconstruction of arterial with TWLTL	Long	\$1,250,000	Exempt	PM <sub>10</sub>
<b>Long Range Total</b>					<b>\$13,174,800</b>	
<b>Jackson County</b>						
JaCo-002	Old Stage Road, Blackwell Road: Winterbrook Lane (design/ROW)	Improve to rural two-lane with shoulder bikeways	Long	\$1,250,000		NA
JaCo-003	N. River Road: Rogue River - Gold Hill (Design/ROW)	Upgrade to collector	Long	\$1,150,000		NA
<b>Long Range Total</b>					<b>\$2,400,000</b>	
<b>Josephine County</b>						
0	No Long Range Projects	No Long Range Projects	Long	\$0		
<b>Long Range Total</b>					<b>\$0</b>	
<b>Rogue River</b>						
0	No Long Range Projects	No Long Range Projects	Long			
<b>Long Range RTP Total</b>					<b>\$15,574,800</b>	

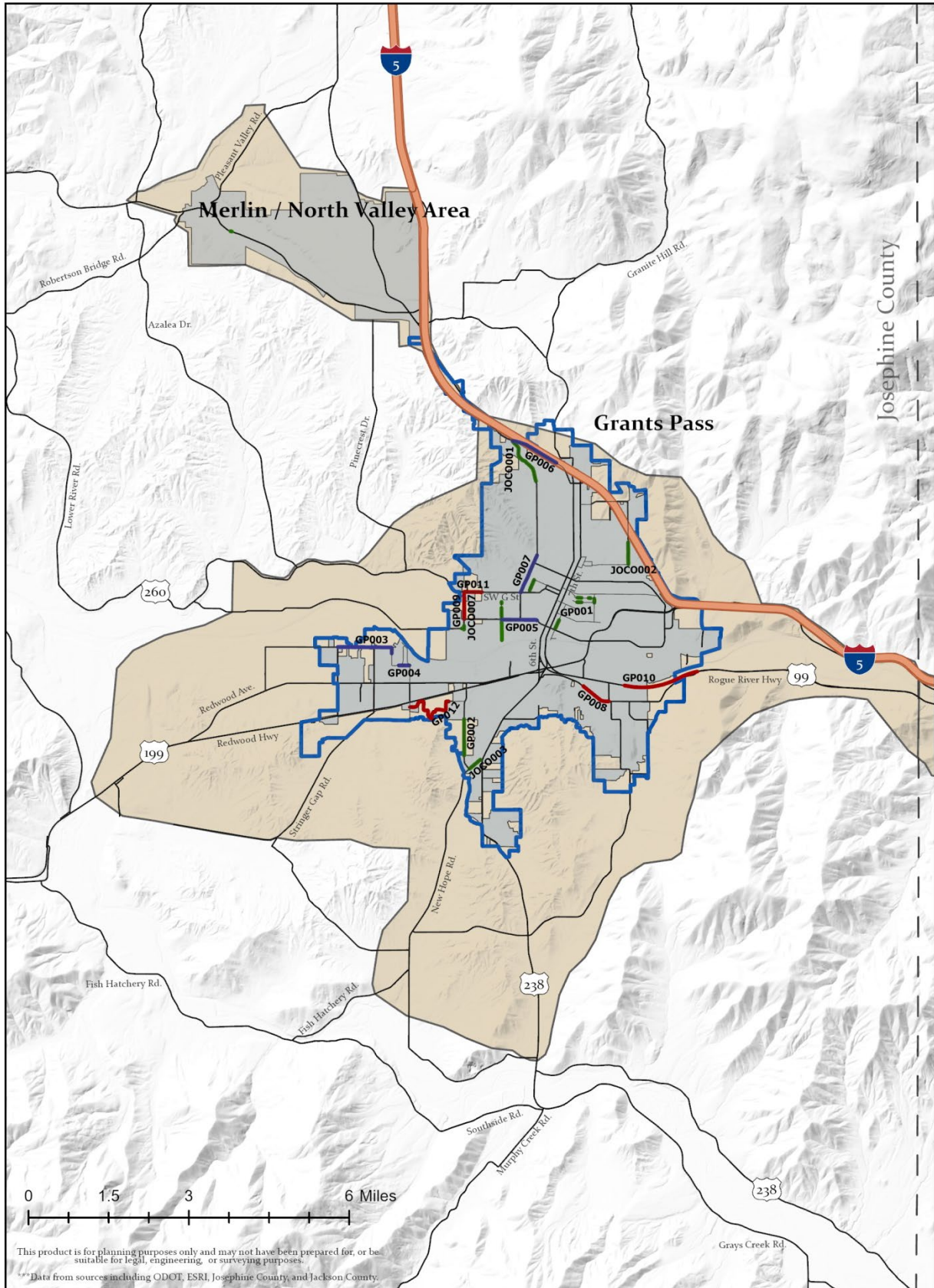


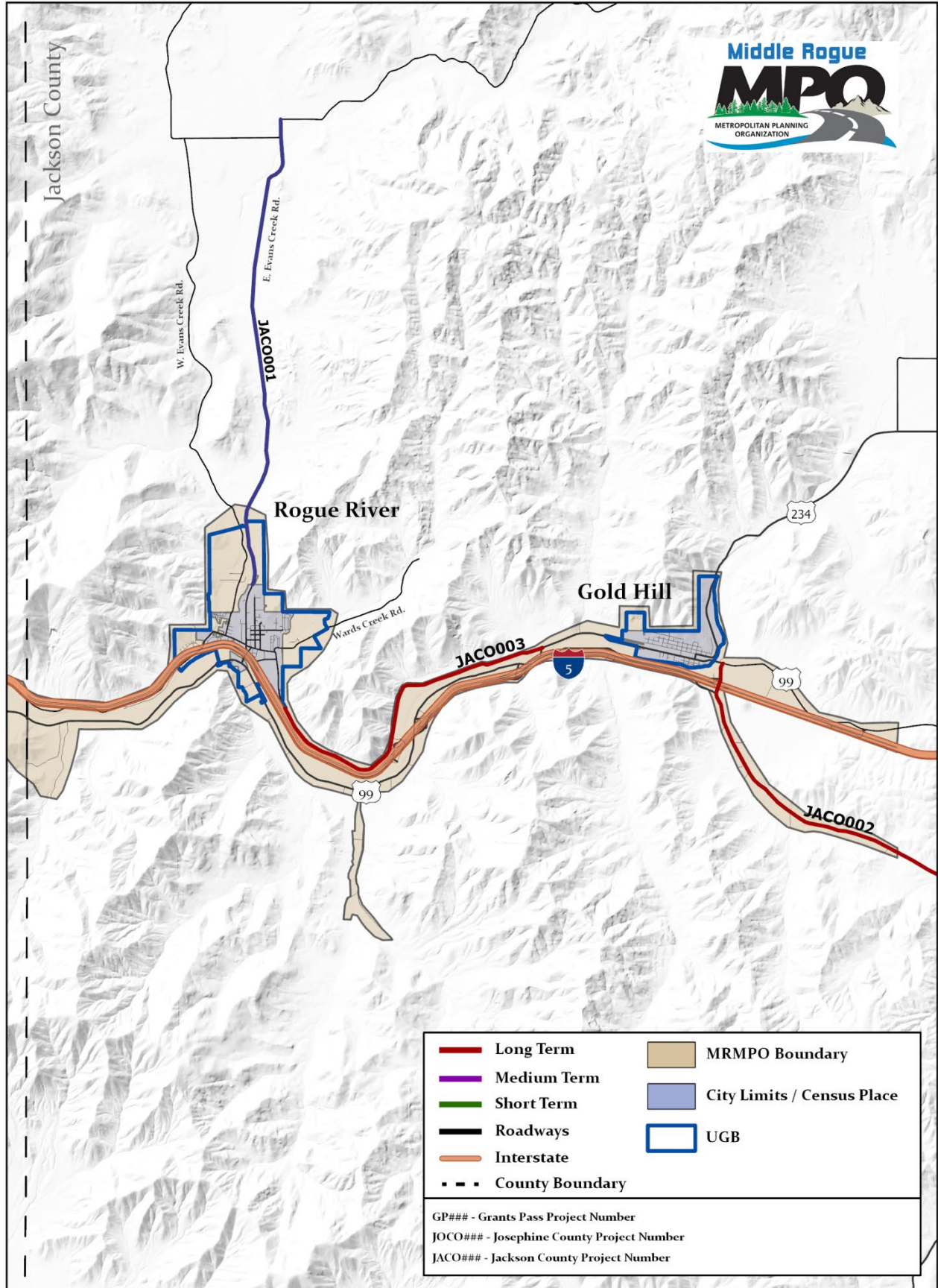
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# Map 6-1 – RTP Projects





# Chapter 7 - Transportation Sustainability

It is a goal of this Regional Transportation Plan to incorporate sustainability measures into the practice of transportation planning, programming, and project implementation to the extent possible.

## A. Defining Sustainability

There is no standard definition for Sustainability nor is there a standard definition for Sustainable Transportation. According to the Oregon Transportation Plan Update (2006), sustainability is creating a balance between the economy, social needs, and the environment in order to ensure healthy and equitable lifestyles and resources for future human, plant, and animal communities. The Oregon Revised Statutes (ORS 184.421) defines sustainability as follows:

*“Sustainability” means using, developing and protecting resources in a manner that enables people to meet current needs and provides that future generations can also meet future needs, from the joint perspective of environment, economic, and community objectives.”*

However, three distinctive characteristics distinguish Sustainable Transportation Planning from the traditional transportation planning. These are Stewardship of the Environment, Social Equity, and Economic Vitality of the community.

The Stewardship of the Environment includes:

1. Measures that reduce depletion of non-renewable resources
2. Measures that reduce air pollution, particularly Greenhouse Gases (GHG)
3. Measures that reduce noise pollution
4. Measures that reduce water pollution
5. Measures that reduce hydrologic impacts
6. Measures that reduce habitat and ecological degradation.

*“It is a goal of this Regional Transportation Plan to incorporate sustainability measures into the practice of transportation planning, programming, and project implementation to the extent possible.”*

The Social Equity includes:

1. Fair and equitable disbursement of transportation services to all people
2. Providing for the mobility of disadvantaged people
3. Affordability of services
4. Community cohesion
5. Aesthetics of built environment.

The Economic Vitality includes:

1. Creation of jobs

## **B. Recommended Sustainability Strategies**

The Sustainability recommendations of this Regional Transportation Plan are mainly derived from the transportation-related measures recommended in the Oregon Transportation Plan.

These are:

### **1. Environmentally Responsible Transportation System**

#### **Strategy 1.1**

Practice stewardship of air, water, land, wildlife, and botanical resources. Take into account the natural environments in the planning, design, construction, operation, and maintenance of the transportation system. Create transportation systems compatible with native habitats and species and help restore ecological processes, considering such plans as the *Oregon Conservation Strategy* and the *Oregon Plan for Salmon and Watersheds*. Where adverse impacts cannot reasonably be avoided, minimize or mitigate their effects on the environment. Work with state and federal agencies and other stakeholders to integrate environmental solutions and goals into planning for infrastructure development and provide for an ecosystem-based mitigation process.

#### **Strategy 1.2**

Encourage the development and use of technologies that reduce greenhouse gas emissions.

#### **Strategy 1.3**

Evaluate the impact of geological hazards and natural disasters including earthquakes, floods, landslides, and rockfalls, on the efficiency and sustainability of the location and design of new or improved transportation facilities as appropriate.

#### **Strategy 1.4**

Work collaboratively to streamline permit procedures and gain efficiencies to transportation system improvements while meeting or exceeding environmental benefits or regulations.

#### **Strategy 1.5**

In the construction and maintenance of transportation infrastructure and facilities, reduce the consumption of non-renewable construction materials, promote their efficient use and reuse, and reduce other environmental impacts such as stormwater impacts where appropriate.

#### **Strategy 1.6**

To determine the most cost-effective investments, consider using life-cycle costs in transportation maintenance, purchase of equipment, selection of materials, and design and engineering of infrastructure where appropriate.

#### **Strategy 1.7**

To accomplish environmental stewardship and increase efficiencies, use environmental management systems.

## **2. Energy Supply**

### **Strategy 2.1**

Support efforts to develop a long range plan for moving toward a diversified and cleaner energy supply. Work with federal, state, regional, and local jurisdictions and agencies as well as transportation providers, shippers, and the general public.

### **Strategy 2.2**

Support the conversion of passenger vehicles and public transportation fleets to more fuel-efficient and alternative fuel vehicles, especially to those using renewable and cleaner fuels. Review and change the tax credit provisions to encourage these activities as appropriate.

### **Strategy 2.3**

Work with federal, state, regional, and local jurisdictions and agencies as well as transportation providers, shippers and the general public to develop a contingency plan for fuel shortages affecting passenger and freight transportation.

## **3. Creating Communities**

### **Strategy 3.1**

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

### **Strategy 3.2**

Promote safe and convenient bicycling and walking networks in communities.

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

### **Strategy 3.3**

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

### **Strategy 3.4**

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

### **Strategy 3.5**

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

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

### **Strategy 3.6**

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

## **4. Economic Vitality**

### **Strategy 4.1**

Consider ways to promote economic vitality through:

- Considerations of infrastructure costs
- Consideration of costs to consumers
- Efforts to reduce traffic congestions
- Consideration of impacts on non-renewable resources.

# Chapter 8 – Financial Outlook for the 2020-2045 RTP Update

## A. Introduction

As required by federal law, the Regional Transportation Plan update must be financially constrained. Toward that effort the MRMPO has identified the primary federal funding streams for the MRMPO: Surface Transportation Block Grant (STBG) funds and Congestion Mitigation and Air Quality (CMAQ) funds.

In the case of the MRMPO CMAQ funds can only be expended within the Urban Growth Boundary of the City of Grants Pass. Because of this restriction only two jurisdictions have access to these funds; the City of Grants Pass and Josephine County (wherein the City lies). The availability of these funds is therefore somewhat competitive and will be addressed in the RTP and TIP on a case-by-case basis.

*“Federal regulations under 23 USC 134(g)(2)(B) and 23 CFR 450.322(b)(11) outline the requirements for the Metropolitan Planning Organization (MPO) to prepare a financial plan that demonstrates how the adopted long-range transportation plan can be implemented.”*

STBG funds are available to all of the member jurisdictions and they each have the opportunity to apply for funds on a tri-annual basis as each new Transportation Improvement Program is developed. These funds are distributed through a project selection process that is periodically reviewed and updated.

Local governments have several revenue sources that they can bring to bear as match for federal funding. Such sources include System Development Charges, Small City Allocations, Street Utility Fees, etc. In addition, it is extremely common for local governments to enter into a fund exchange with the Oregon Department of Transportation in order to pursue identified projects. In these cases, local match is not a requirement.

With a projected revenue stream (STBG) of roughly \$23 million dollars over 26 years that amounts to a little over \$885,000 per year. Given that that meager amount is to be vied for by two counties and three jurisdictions and given that, in most of the cases, fund exchanges are the norm rather than the exception, it is a reasonable expectation that the local jurisdictions will have more than sufficient local funds to match the available federal dollars.

The Oregon DOT will also pursue projects within the MRMPO Planning Boundary over the time-frame covered by this RTP update. These projects are automatically assumed to be fiscally constrained. While specific capacity-enhancing and regionally significant projects will be identified within the update itself there are three categories of projects that will be referred to contextually:

Preservation, Safety, and Operations. In this context, when specific projects are identified they will be amended into the TIP directly.

Oregon DOT Region 3 serves Coos, Curry, Douglas, Jackson and Josephine County. The Region is subdivided into two separate Districts: District 7 – comprised of Coos, Curry, and Douglas Counties, and District 8 - comprised of Jackson and Josephine Counties. Beyond the capacity enhancement projects individually identified in the RTP, the RVMPO expects that ODOT Region 3 will expend additional dollars on projects classified under three categories: preservation, safety, and operations.

- Preservation projects include, but are not limited to, projects such as repaving of roadways, culvert replacements and installations, restriping of lanes, roadway treatments such as adding asphalt sealant and guardrail repairs.
- Safety projects include, but are not limited to, projects such as guardrail installation, restriping of lanes and/or reconstruction of lanes to promote safer vehicular movements along a road and/or through an intersection, installation of warning/caution signage, lane reflectors, rumble strips, etc.
- Operation projects include, but are not limited to, such projects as interconnection of traffic signals to promote more efficient operations of critical roadways, installation of Variable Message Signs along critical corridors and/or interstates and TDM strategies.

Utilizing trend numbers for the years 2013 through 2021, as provided by ODOT, MRMPO staff developed a yearly funding projection out to the year 2045 with an inflation rate of 2% to the average of the trend numbers for each category. In the table below are the calculated totals per category:

Preservation	\$	169,000,000
Safety	\$	121,000,000
Ops	\$	120,000,000

Although Region 3 is comprised of two districts the majority of the population is in District 8. Over a ten year period it is anticipated that roughly 60% of the funds in the three categories identified above may be spent in District 8 and roughly 40% will be expended in District 7.



# Chapter 9 – Air Quality

## A. 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. See map 9-1 AQMA boundaries.

*“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.”*

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 to 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 2020-2045 Regional Transportation Plan and 2021-2024 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.

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

### 4. How the MRMPO Demonstrates Conformity

An AQCD is required whenever the Regional Transportation Plan (RTP) or Transportation Improvement Program (TIP) 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.

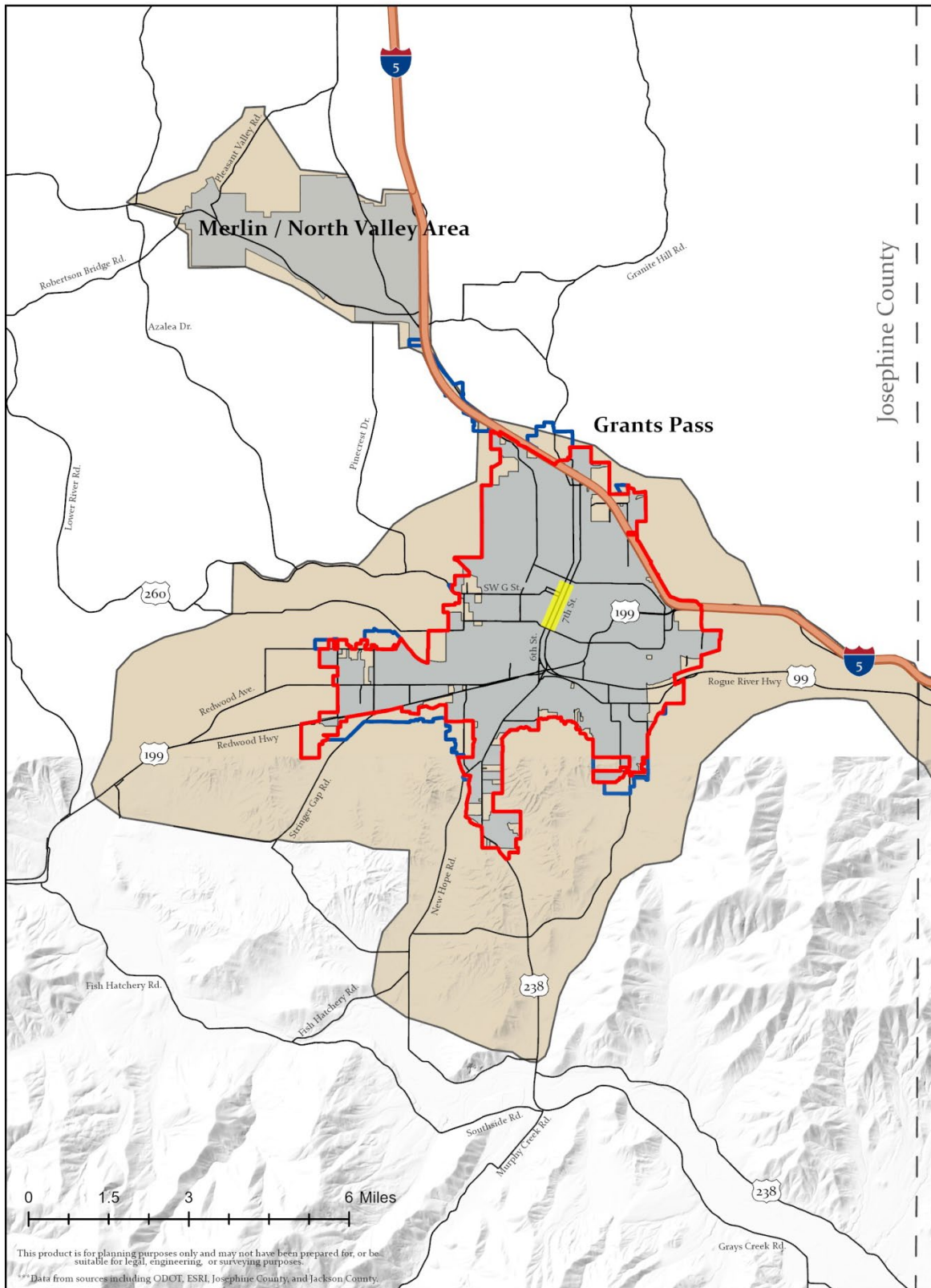
## **5. Actions to be taken**

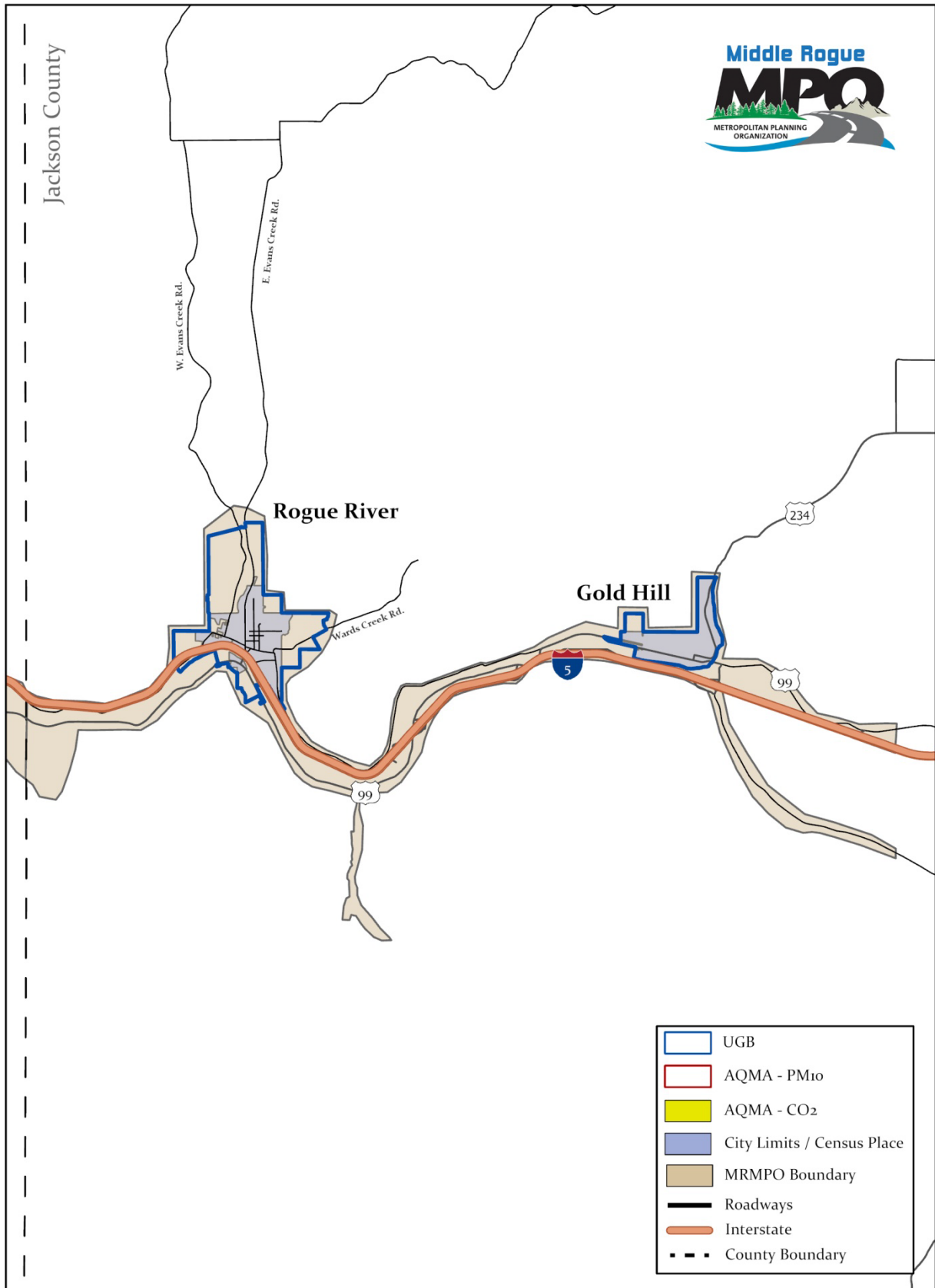
The MRMPO Policy Committee, as the policy board for the federally designated Metropolitan Planning Organization, must formally adopt the findings described in the AQCD. Then, USDOT and the federal Environmental Protection Agency confer on the analysis. Ultimately, USDOT will make a conformity determination based on the AQCD. At that time, the MRMPO's 2020-2045 plan will go into effect, as well as the 2021-2024 TIP.

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# Map 9-1 – Air Quality Maintenance Areas





# 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, tribal, wildlife, land management, and regulatory agencies, as shown on Table 10.1.

**Table 10.1**

<i>Agency</i>
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, 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 chapter.

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 10-5 depict information pertaining to:

- Prime Agricultural Soils, Viticulture Areas, Vineyards, and Orchards;
- Wetlands and Special Flood Hazard Areas;
- Fish Passage Barriers, Salmonid Habitat, and Water Quality (TMDL) Limited Streams;
- Wildlife Collision Hotspots;
- Historic Places; and

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 10-18.

### **Prime Agricultural Soils, Viticulture Areas, Vineyards, and Orchards, 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 and Special Flood Hazard Area, Map 10-2:**

Illustrates RTP projects that intersect the National Wetlands Inventory, Grants Pass Local Wetlands Inventory, and FEMA's Special Flood Hazard Area (100-year floodplain). Note: The National Wetlands Inventory has limitations for planning efforts including the lack of mapping wetlands smaller than one acre, farmland wetlands, and some other smaller features. Due to the lacking information, some mitigation opportunities and potential impact areas may be missed if better location information is not available. (DSL 2015)

### **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.

### **Wildlife Collision Hotspots Map 10-4:**

Illustrates RTP projects that overlap with high frequency wildlife mortality incidents (from Oregon Department of Transportation dispatch records of carcass reports). Includes only records of deer and elk.

### **Historic Places, Map 10-5:**

The National Park Service's National Register of Historic Places mapped with the RTP projects.

## **B. Environmental Justice**

Environmental Justice encompasses three fundamental principles:

1. Avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
2. Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
3. Prevent the denial of, reduction in, or significant delay of these protections for minority and low-income populations.

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://www.mrmppo.org/images/Planning%20Documents/MRMPO.TitleVIPlan.FHWA\\_2.2015.pdf](http://www.mrmppo.org/images/Planning%20Documents/MRMPO.TitleVIPlan.FHWA_2.2015.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 appropriate to begin considering the environmental consequences of any policy, project, and/or program that address 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 having a federal nexus. A project has a federal nexus if it involves federal funding, a federal permit or approval, use of federal lands, or a federal program.

### **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, floodplains, fish (salmonid) habitat, critical wildlife 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. Evaluation 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.
- 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. 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 to the greatest extent possible. Agency review (NOAA Fisheries 2015 and ODFW 2015) has also emphasized the importance of avoiding and minimizing 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, or State guidance ORS 196.600 to 196.655.

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 large contiguous habitat provides more benefits than small isolated habitats due to facilitated species movements, increased colonization rates, and decreased local extinction rates and 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.
  - ♦ Using best management practices to avoid introduction and spread of invasive species is another key issue. Road construction actions to avoid soil disturbance should be used to reduce the spread of noxious invasive plants.
  - ♦ Avoiding soil disturbance should be used to reduce the spread of noxious invasive plants.
  - ♦ Employing seasonal restrictions around bird nest sites during a critical season, thus avoiding and reducing short-term impacts to sensitive nest sites for a number of bird species in the area that could be affected, including bald eagle, golden eagle, and osprey.
- 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. Rogue Wild and Scenic River Designation

The Rogue Wild and Scenic River is best known for its outstanding natural scenery, fishing, whitewater boating, and wildlife and cultural resources. Eighty-four miles of the Rogue River was designated wild and scenic by Congress in 1968, under the Wild and Scenic Rivers Act, to preserve its outstanding qualities. The Applegate River (7 miles west of Grants Pass, Oregon) is the east boundary and Lobster Creek (11 mile east of Gold Beach, Oregon) is the west boundary.

The area gets over half a million visitors, annually. Recreation opportunities include: boating, fishing, guided motorized tour boat trips, guided whitewater fishing and float trips, camping, hiking, swimming, picnicking, wildlife viewing, and sun bathing.

Although the Wild and Scenic section is not within the MRMPO Boundary, consideration of downstream impacts of projects is recommended.

## **7. 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, State guidance ORS 196.600 to 196.655, or other agreement between appropriate agencies. Where feasible, the MPO will attempt to collectively conserve habitat areas that provide greater environmental benefits.

### **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 but 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.

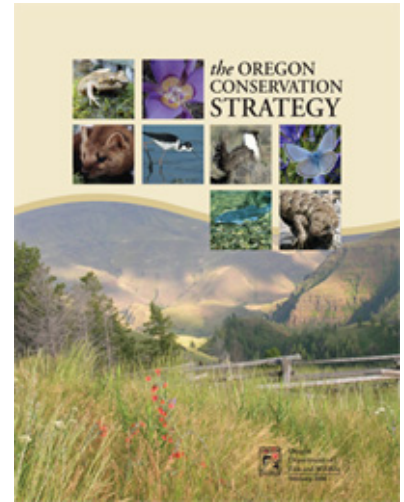
## **8. Wildlife Habitat**

The Oregon Department of Fish and Wildlife (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.



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 endemic species. In fact, the Klamath-Siskiyou region was included in the World Wildlife Fund's assessment of the 200 locations most important for species diversity worldwide.

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 are 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. ODFW is in the process of updating the COA's and has expanded the North Medford COA so that a portion of the MRMPO planning area is now included.

### **9. Barriers to Wildlife Movement**

Barriers to wildlife movement is identified in the Oregon Conservation Strategy as one of the key conservation issues facing Oregon's habitat and species. Highway and road networks are particularly disruptive to carnivore species that require long-distance movements to meet their life-history requirements, herptiles such as Pacific Giant Salamander, Northwestern Garter Snake, Common Kingsnake, Common Gartersnake and Western Pond Turtles in the area and migratory deer that are especially vulnerable during fall and spring to vehicle collisions. 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's 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)

### **10. Endangered Species Act**

The Endangered Species Act (ESA) provides for the conservation of species that are endangered or threatened as well as the conservation of the ecosystems on which they depend. Table 10.2 identifies a list of species (birds, fish, flowers, and mammals); their status at the local, state, or federal level, and if there is critical habitat in the MRMPO area.

**Table 10.2**

<i>Species common name</i>	<i>Species scientific name</i>	<i>Status</i>	<i>Critical Habitat (CH)</i>
<b>Birds</b>			
Northern Spotted Owl	<i>Strix occidentalis caurina</i>	T	Y
<b>Fish</b>			
Coho Salmon	<i>Oncorhynchus kisutch</i>	T	Y
North American Green Sturgeon	<i>Acipenser medirostris</i>	T	N
Pacific Eulachon	<i>Thaleichthys pacificus</i>	T	N
<b>Flowers</b>			
Gentner's Fritillary	<i>Fritillaria gentneri</i>	E	N
<b>Mammals</b>			
Gray Wolf	<i>Canis lupus</i>	E	N
Fisher	<i>Martes pennanti</i>	pT	N

The ESA allows agencies to issue permits to entities who conduct activities that may result in “incidental take” of a protected species. For the three fish species listed as threatened under the ESA potentially affected; Southern Oregon/Northern California Coasts (SONCC) Coho Salmon (*Oncorhynchus kisutch*), North American Green Sturgeon (*Acipenser Medirostris*), and Pacific Eulachon (*Thaleichthys pacificus*), as well as critical habitat designated for SONCC Coho Salmon, section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires entities to consult with NMFS when their actions adversely affect essential fish habitat (EFH) (NOAA Fisheries 2015).

### **11. 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, high levels of bacteria, 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 Clean 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 10.3 lists TMDL stream segments within the **MRMPO** along with their identified impairments.

**Table 10.3**

<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	bacteria and temperature

## **12. 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 use to be available through groundwater, as well as seeps, which is needed by streams and other surface waters during the summer months is no longer 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 are 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 aquatic and terrestrial species.

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 flow rates (seasonal peaks) which in turn causes 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 into a lake, stream, river, wetland, or coastal water. Anything that enters a storm drain untreated is discharged 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 aquatic and terrestrial habitats and associated fish and 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. In relation to fish and aquatic species, these pollutants are a source of potent adverse effects to the biotic ecosystem, even at ambient levels. They are known to accumulate in the prey and tissues of juvenile salmon where they cause a variety of lethal and sublethal effects including disrupted behavior, reduced olfactory function, immune suppression, reduced growth, disrupted smoltification, hormone disruption, disrupted reproduction, cellular damage, and physical and developmental abnormalities (NOAA Fisheries 2015). Therefore, care in the design of the transportation system is important. Stormwater discharge is regulated under the Clean Water Act, Section 402. Projects will need to meet requirements of any local programs (e.g., NPDES Phase II) and design manuals (e.g. Rogue Valley Stormwater Water Quality Design Manual).

### **13. Historic and Archaeological Considerations**

Protection of historic and archaeological 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 (NEPA) of 1969, the National Historic Preservation Act of 1966, the Archaeological 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.

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.

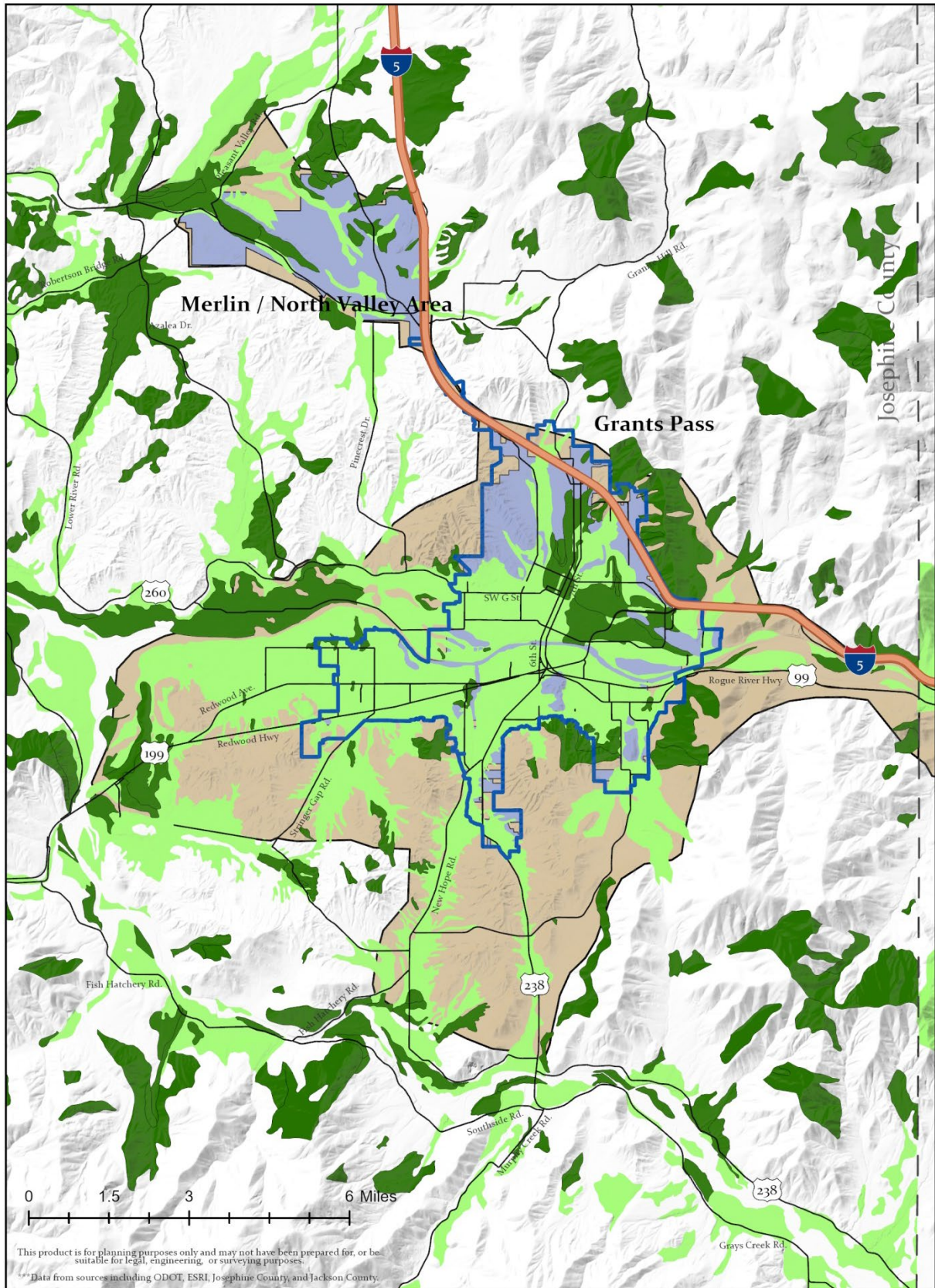
In order for FHWA field offices to make key determinations on projects having minor impacts or a net benefit on areas protected by Section 4(f), the agency issued several Nationwide Section 4(f) Programmatic Statements. Section 4(f) is considered by the preservation community to be one of the most effective 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.

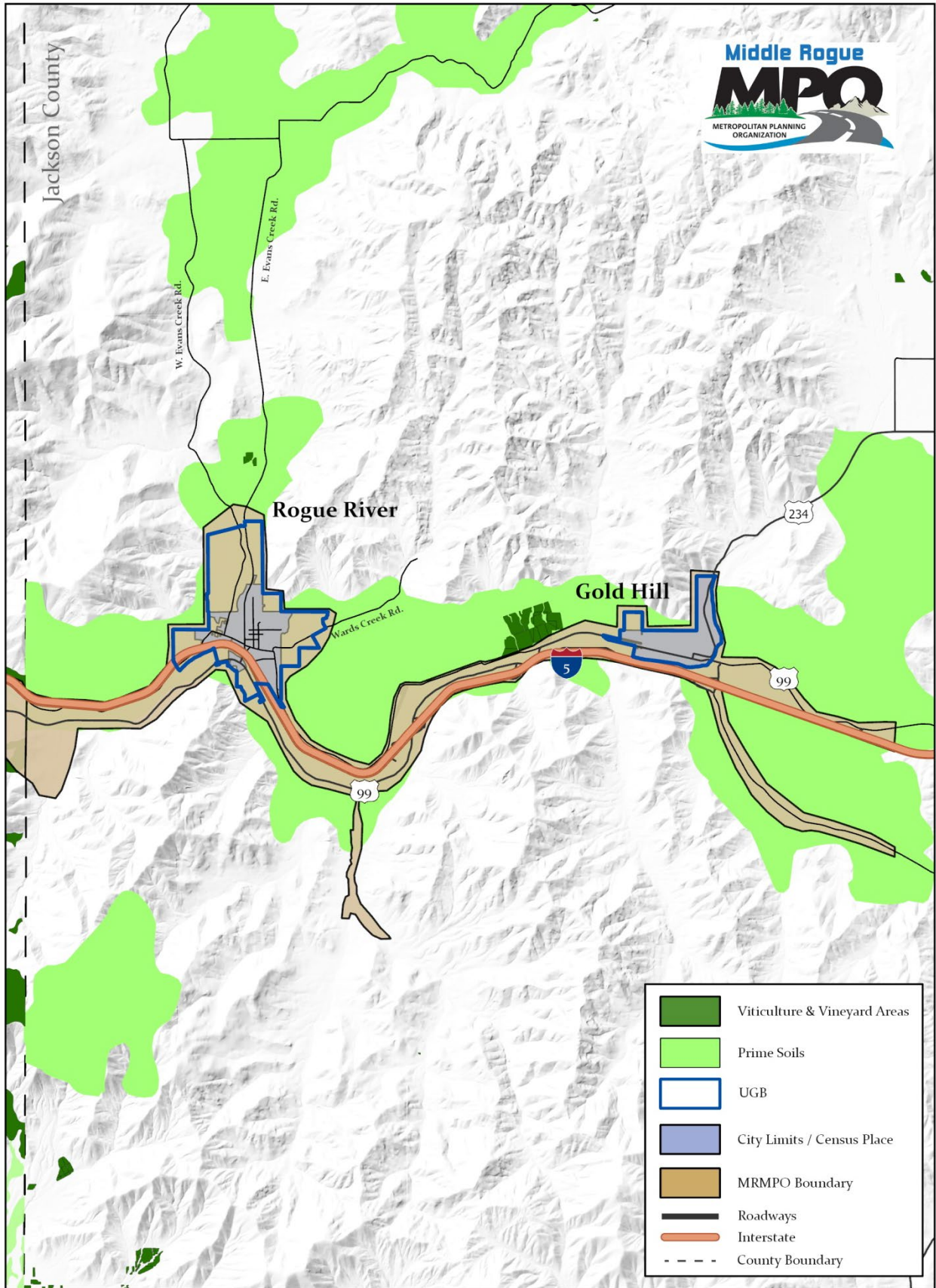
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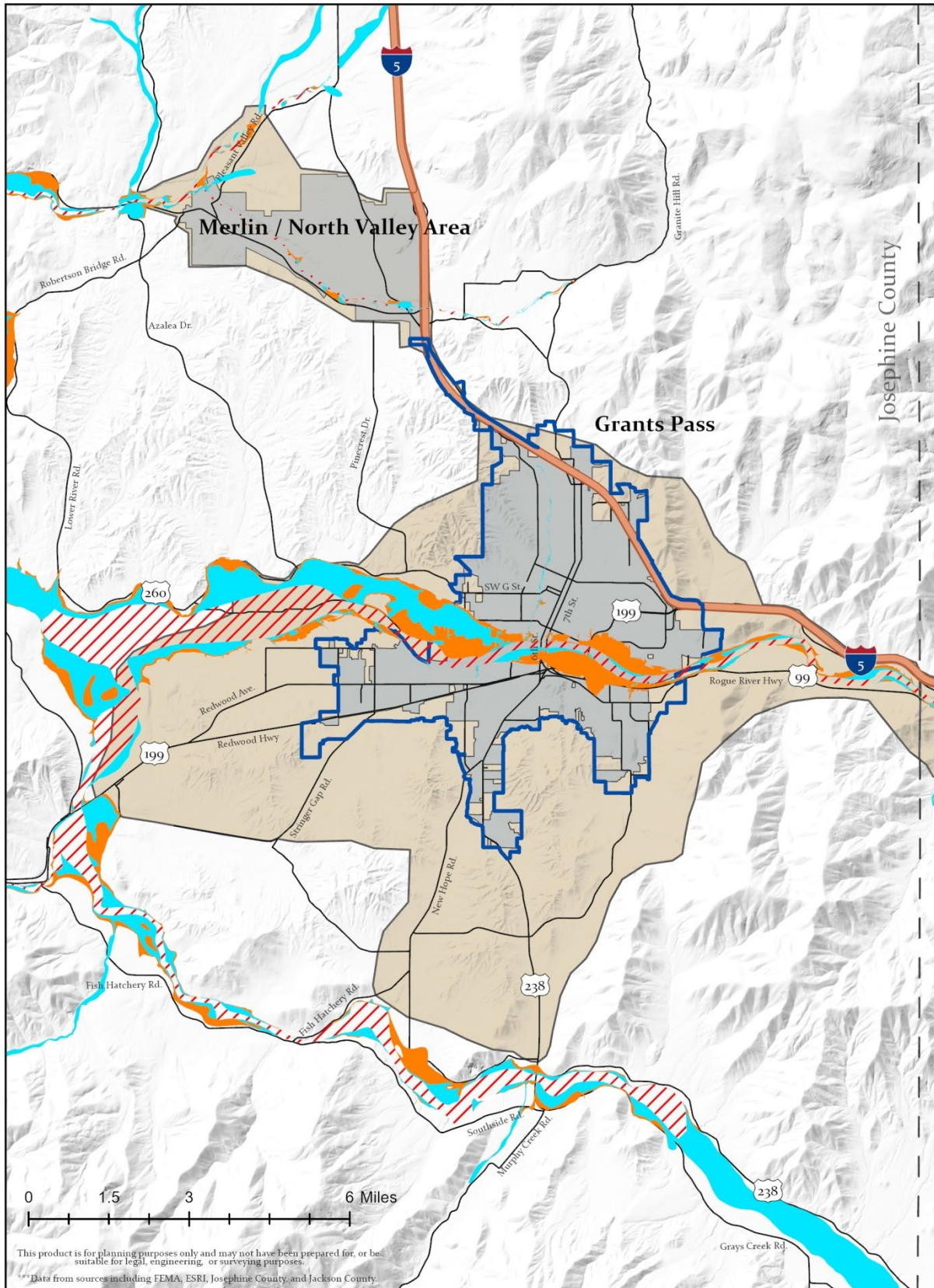


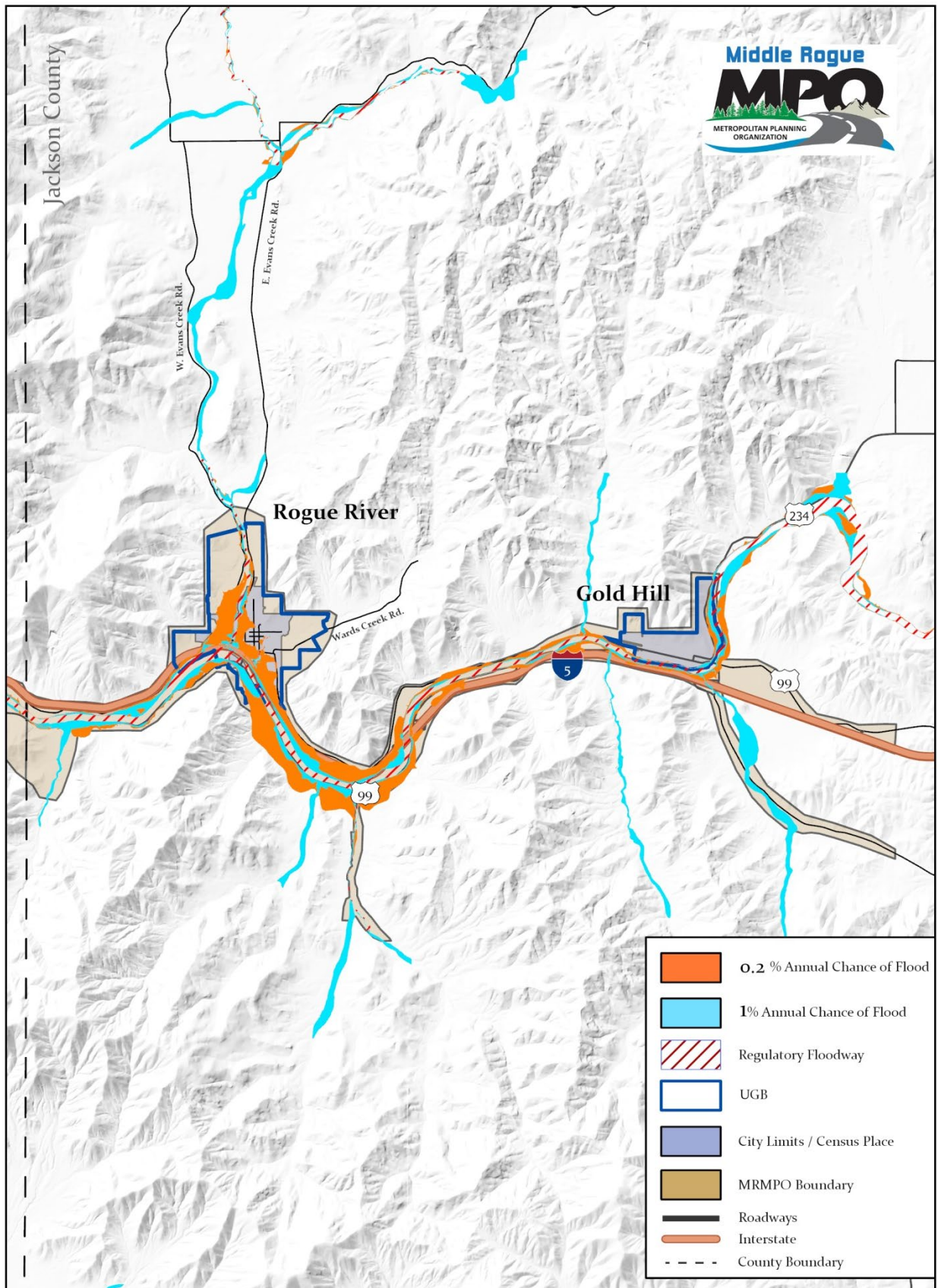
**Map 10-1 – Prime Agricultural Soils, Viticulture Areas, Vineyards and Orchards**



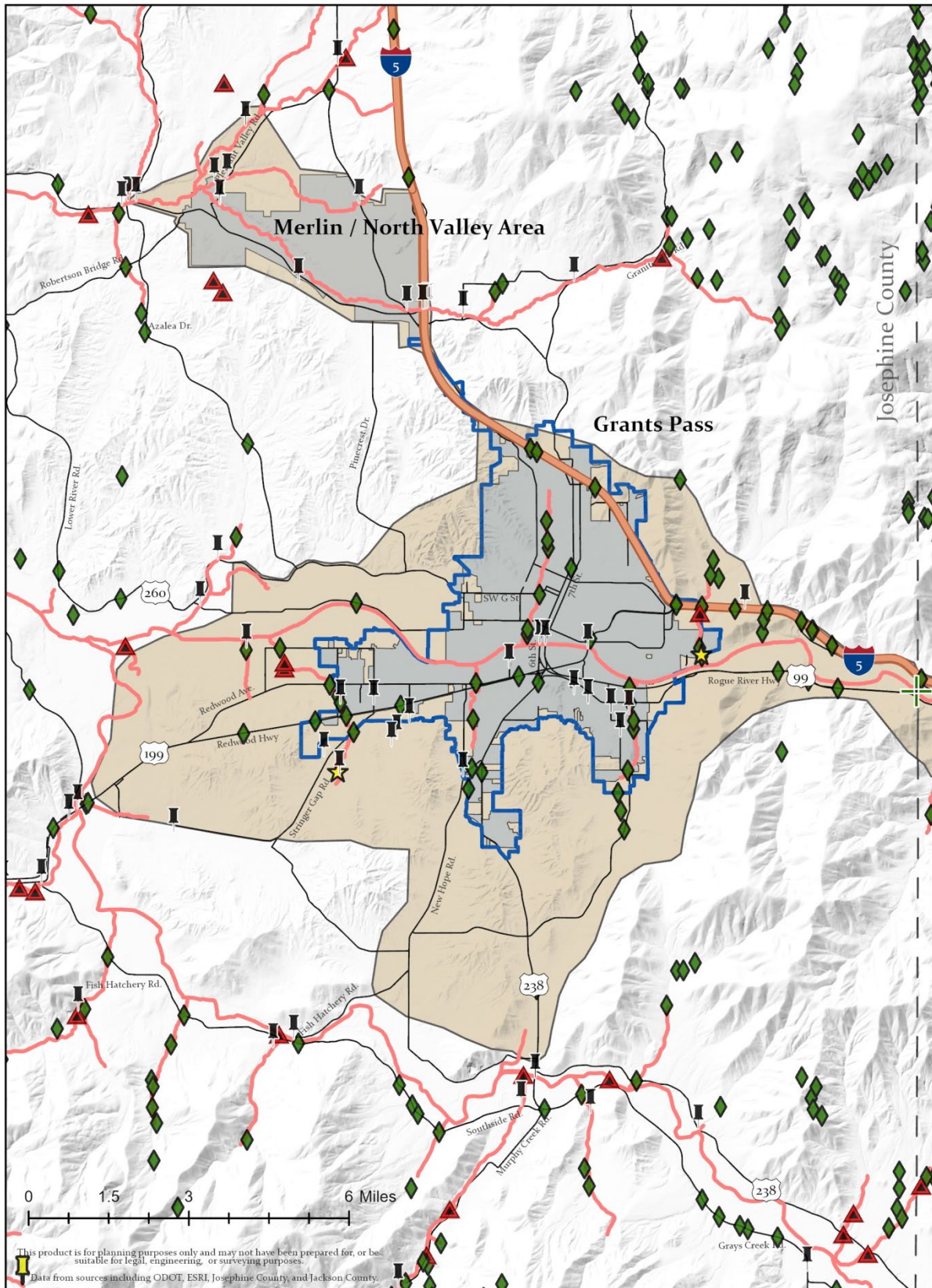


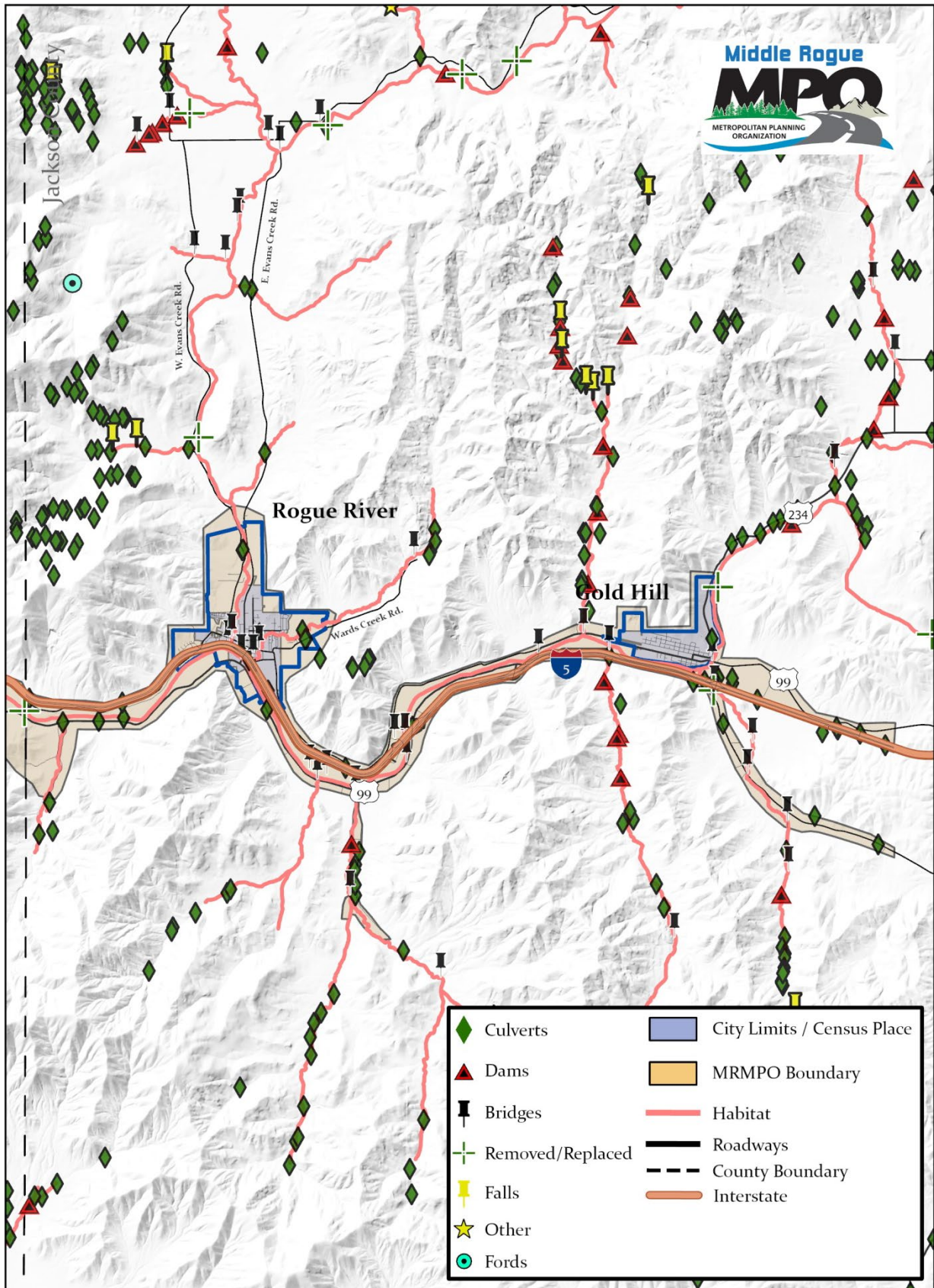
**Map 10-2 – Wetlands and Special Flood Hazard Area**



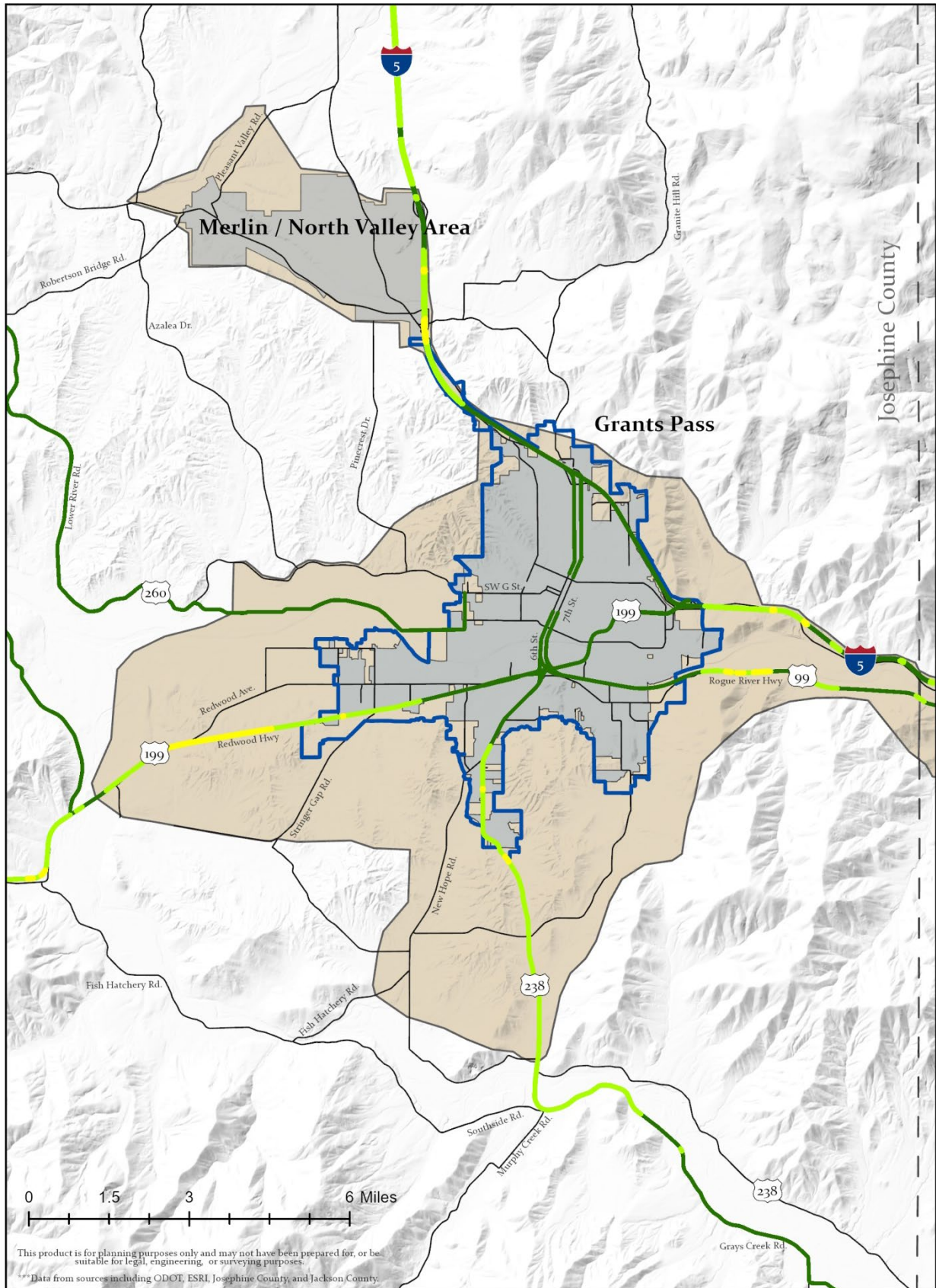


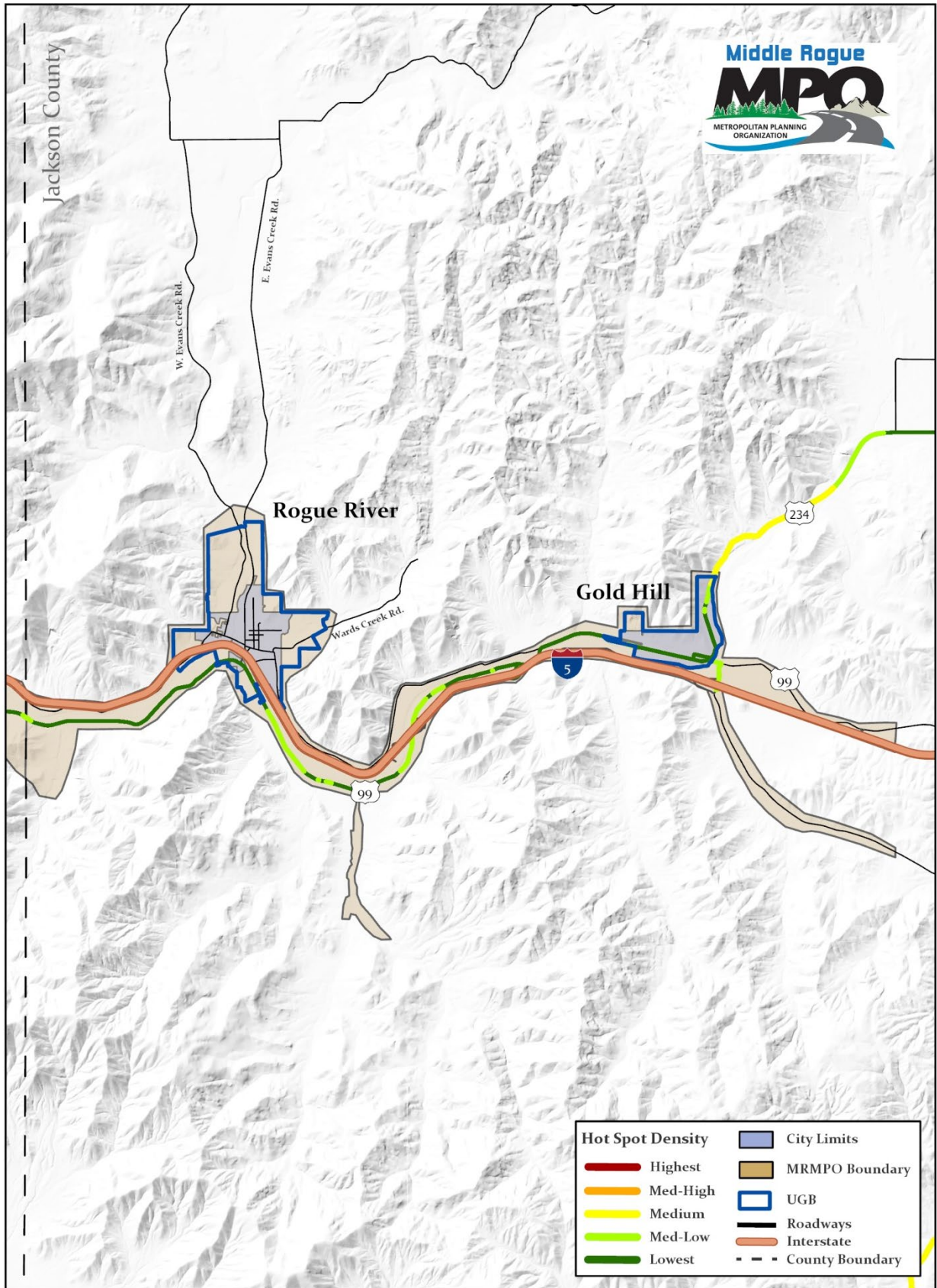
**Map 10-3 – Fish Passage Barriers, Salmonid Habitat, and Water Quality (TMDL) Limited Streams**





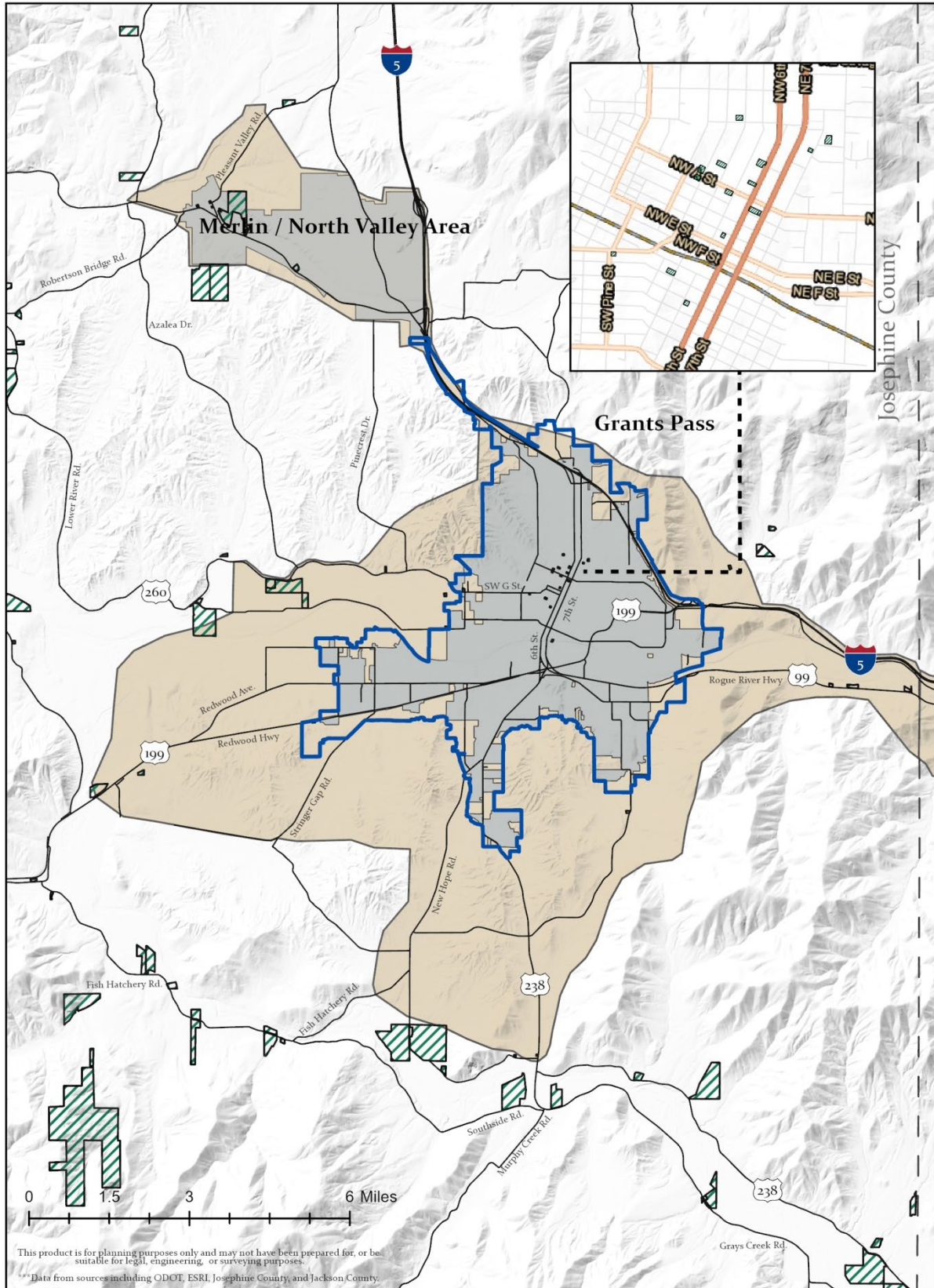
**Map 10-4 – Wildlife Collision Hot Spots**

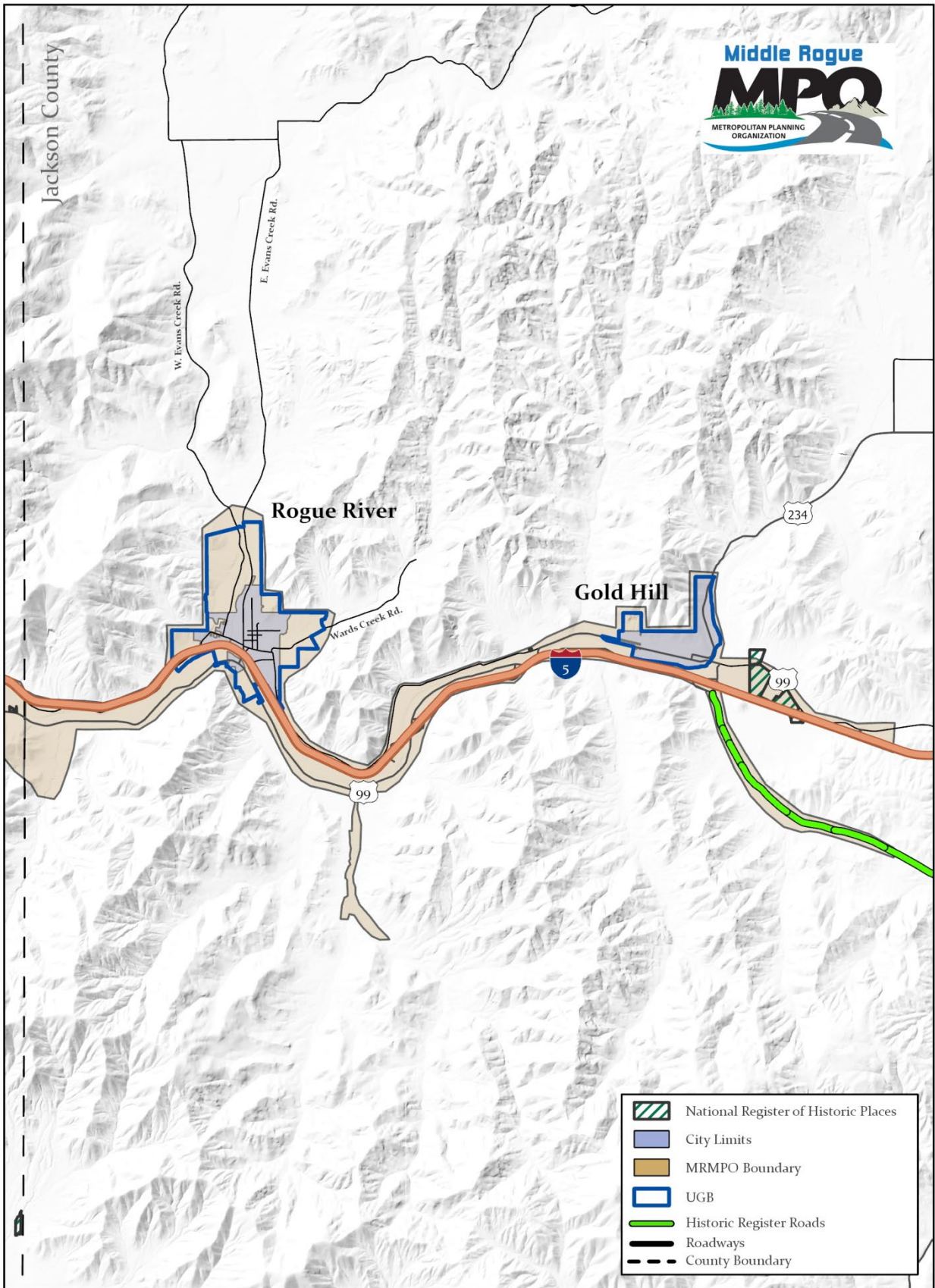






# Map 10-5 – Historic Places





# Chapter 11 – System Performance

This chapter will include the following once all the data has been received:

- Description of the Southern Oregon Activity Based Model and discussion of the pros and cons of the ABM vs the Oregon Small Urban Model
- Identification of existing and future areas of congestion (based on the model runs) including maps

DRAFT

# 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 rounds out at the regional and local planning levels. 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.

*“Public safety is by far the most important element considered in every transportation project.”*

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 problem crashes are unpremeditated unfortunate events. As such, they may be caused by driver error, driver 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. The Josephine County Sheriff's Department does not respond to crashes within the County's jurisdiction due to funding shortfalls. This may result in an under-reporting of crashes. In addition, the number of state police on the road has fluctuated but generally has remained below national average rates. Gold Hill does not have law enforcement; Jackson County Sheriff's department responds to crashes in Gold Hill. Crash records show that two common infractions have a significant impact on traffic crash rates and severity: failure to obey traffic controls and failure to obey posted speed signs.

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. Crash Data**

The Crash Analysis & Reporting Unit at ODOT provides motor vehicle crash data through database creation, maintenance and quality assurance, information and reports, and limited database access. Ten years of crash data is maintained at all times. Vehicle crashes include those coded for city streets, county roads and state highways. The following is a link to their crash data site.

<https://www.oregon.gov/odot/Data/Pages/Crash.aspx>

## 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 distinctly from transportation safety. Furthermore, in 2002 the 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 offer that redundancy.

### 1. Definitions

The simplest distinction between safety and security is that safety problems and 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.

*"The simplest distinction between safety and security is that safety problem – accidents are just that, unpremeditated, unfortunate events."*

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 12.6 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, one 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.

**Emergency Planning** - 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, 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.

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

#### 4. MRMPO Planning

Security planning efforts in the planning area are directed and managed by the emergency responders: police, fire, and medical - representing all 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 TIP scoring matrix and other specific funding program scoring matrices to ensure that security projects receive appropriate weighting and priority in the TIP.
- Regularly review the Tier 1 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.