



MEMORANDUM

Date: June 21, 2011 Project #: 10771
To: PMT
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Project: Medford UGB Amendment and TSP Update
Subject: Final Project Literature Review

This technical memorandum presents the project literature review for the City of Medford Urban Growth Boundary (UGB) Amendment and Transportation System Plan (TSP) Update. This memorandum summarizes the purpose of the documents reviewed and their relevance to both the current TSP and to the TSP update and UGB Amendment process. The documents reviewed include:

- City of Medford Transportation System Plan
- City of Medford Comprehensive Plan
- Oregon Statewide Planning Goals, including Goal 12 (Oregon Administrative Rule 660-12)
- Oregon Transportation Plan
- Oregon Highway Plan (OHP)
- Oregon Public Transportation Plan
- Oregon Bicycle and Pedestrian Plan
- Oregon Department of Transportation (ODOT) Statewide Transportation Improvement Program (STIP)
- Rogue Valley Regional Transportation Plan (RTP)
- Rogue Valley Metropolitan Planning Organization (RVMPO) Freight Study
- Jackson County Comprehensive Plan
- Jackson County Transportation System Plan
- Greater Bear Creek Valley Regional Plan
- Bear Creek Valley Greenway Management Plan
- South Medford Interchange Area Management Plan (IAMP)

The following section summarizes the review of these documents and the key transportation issues that need to be addressed as part of the TSP update.

Key Transportation Issues

The following summarized several of the key transportation issues identified through the project literature review:

- The update and UGB Amendment processes needs to comply with the Regional Problem Solving process with regards to utilizing Urban Reserve Areas, coordinated population forecasts, and development of refinement plans for any URA areas.

- The Statewide Planning Goals provide a framework for the requirements of the update and amendment processes, particularly Planning Goal 12 – Transportation which provides the required elements of a Transportation System Plan.
- Existing and no-build performance standards for State facilities should be measured against the Oregon Highway Plan mobility standards, noting exceptions for the interim South Medford Interchange and the Stewart Avenue/Pacific Highway (OR 99) intersections.
- Projects identified within the Statewide Transportation Improvement Program should be considered as part of horizon year transportation system. Projects in the Rogue Valley Regional Transportation Plan should be included as part of the financially constrained modeling efforts.
- Pedestrian, bicycle, and transit improvements should be an integral part of the transportation improvement packages and should be considered prior to major capital roadway investments. Multi-modal travel and reduction of single occupant vehicle trips is a primary mitigation strategy identified within the RTP. Multimodal improvements should focus on treatments that enhance connectivity, safety, and accessibility. In particular, preservation, enhancement, and interconnectivity of the Bear Creek Greenway's function as a regional trail should remain a City priority.
- Medford will remain an important regional freight center, particular for truck traffic. Strategies that address freight connectivity, reliability, and geometric needs should be an integral and important priority for system improvements.

City of Medford Transportation System Plan

The City of Medford Transportation System Plan was adopted in November 2003 and considered a horizon period of 2023. The TSP contains a comprehensive assessment of the pedestrian, bicycle, transit, freight, air, pipeline, railway, and vehicular systems. The TSP provides detailed inventories of each of the systems, identifies phased goals and strategies, and identifies revenue forecasts and options.

The TSP includes a literature review element capturing the plans reviewed for consistency. New plans and plan updates subsequent to the TSP preparation should be amended into the literature review section. The existing conditions section of the TSP summarizes roadway jurisdiction, traffic volumes, locations of signalized intersections, intersection performance, and intersection and highway segment safety. The TSP discusses each of the systems serving the transportation modes and includes inventories of the supporting modal infrastructure, with this data compiled between 1999 and 2002.

Population and land use forecasts used to inform the horizon period needs for the TSP were based on forecasts that preceded the Regional Plans and current estimates of coordinated population and employment forecasts. The City's Transit Oriented Development areas had been designated within the current TSP, though detailed refinement plans had not been identified and the various TOD areas were expected to have unique land use goals requiring an individualized approach. Within the needs section, the City identified a number of intersections that failed to meet performance targets and potential improvement mitigations and strategies (including alternative City performance standards). The TSP noted that the highest congestion and roadway system needs were along the State highway and interstate system.

Modifications to roadway cross-sections included separation of arterials and collectors into *minor* and *major* categories to provide additional flexibility and distinguish between 3- and 5-lane sections. The City elected to retain an LOS "D" intersection performance standard for City roadways.

Updated TSP Needs

Existing conditions information presented within the TSP is based on data from 1999 to 2002 and should be considered for updates (particularly roadway safety). Roadway cross-section standards should consider further refinements to better reflect the multi-modal travel goals or high mobility functions, particularly within TOD areas or along regional connections such as Foothill, Biddle, Table Rock, and Stage Road. The designation and management of regional roads would better connect the region and improve freight movements. While the Crater Lake Highway expressway is mentioned within the TSP, specific plans for the extension were not complete when the TSP was adopted.

Transit service changes should also be updated based on RVTDs current 10-year plan. Goals such as identifying stable transit funding mechanisms, extending service to identified TOD areas, and improving service frequency, coverage, and accessibility should be revisited as these items have been identified as key mitigation strategies within the Regional Transportation Plan as well as the 2003 TSP.

The pedestrian and bicycle system inventories should also be reviewed alongside the transit routes, TODs, schools, and major activity centers to identify system connectivity needs based on subsequent land use changes and improvements. Due to the regional significance of the Bear Creek Greenway, further identification of the at-grade roadway crossing treatment needs and system interconnectivity should be identified within the TSP.

As the City extends the horizon period from 2023 to 2034 with revised land use and population forecasts the City may consider a revised look at alternative City intersection performance standards for budgetary and multi-modal reasons.

The remainder of this document assesses the plans and policies relative to the 2003 TSP for the City.

City of Medford Comprehensive Plan

The City of Medford Comprehensive Plan adopted an abbreviated version of the existing Medford TSP as the Transportation System Plan Element of the plan. Specifically, the Executive Summary, the Transportation and Land Use Chapter, the Goals, Policies, and Implementation Strategies, and various other significant maps or tables were included in the Comprehensive plan. The entire table of contents of the TSP is referenced as well. This element was adopted in November 2004 and more recently amended in October 2008.

2003 TSP Assessment Relative to the City of Medford Comprehensive Plan

Given that the Comprehensive Plan has adopted portions of the TSP to serve as the transportation element, any update to the TSP will likely require adoption into the Comprehensive Plan as well. As such, the TSP update effort should consider this adoption step during development.

Statewide Planning Goals

Oregon's Statewide Planning Goals first originated in 1973 to provide a coordinated vision of state land use policies. There are nineteen planning goals within OAR 660-015. Of these, Goal 15 is only relevant to the Willamette Greenway and Goals 16 through 19 are relevant only to coastal communities. While not all of the goals are mandatory, each has been adopted as an Oregon Administrative Rule (OAR) to be followed by government agencies. A summary of the planning goals is provided below.

- Citizen Involvement (Planning Goal 1) – To develop a citizen involvement program that provides the opportunity for engagement in all phases of the planning process.

- Land Use Planning (Planning Goal 2) – To establish land use planning process and policy framework as a basis for all decisions and actions related to use of land, and to assure an adequate factual base for such decisions and actions.
- Agricultural Lands (Planning Goal 3) – To preserve and maintain agricultural lands.
- Forest Lands (Planning Goal 4) – To conserve forest lands by maintaining the forest land base and to protect the state's forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting of forest tree species as the leading use on forest land consistent with sound management of soil, air, water, and fish and wildlife resources and to provide for recreational opportunities and agriculture.
- Natural Resources, Scenic and Historic Areas, and Open Space (Planning Goal 5) – To protect those resources that promote a healthy environment and a natural landscape that contributes to Oregon's livability for present and future generations.
- Air, Water, and Land Resources Quality (Planning Goal 6) – “to maintain and improve the quality of the air, water, and land resources of the state”.
- Areas Subject to Natural Disasters and Hazards (Planning Goal 7) – “to protect people and property from natural hazards”, such as floods, landslides, earthquakes, tsunamis, coastal erosion and wildfires.
- Recreational Needs (Planning Goal 8) – to satisfy citizen and visitor's recreational needs. Also, to provide for the siting of necessary recreation facilities (including destination resorts), where appropriate.
- Economy of the State (Planning Goal 9) – To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens.
- Housing (Planning Goal 10) – To provide housing needs for the residents of the state.
- Public Facilities and Services (Planning Goal 11) – “to plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development”.
- Transportation Planning (Planning Goal 12) – To develop a coordinated transportation system plan that is safe, convenient, and economical, minimizing reliance on any single travel mode.
- Energy Conservation (Planning Goal 13) – to manage and control lands and associated land uses in order to “maximize the conservation of all forms of energy, based on sound economic principles.”
- Urbanization (Planning Goal 14) – To provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide livable communities.

While all of the goals will help set the necessary policy framework for the TSP and UGB Amendment processes, Goal 12 (OAR 660-015-0000 (12)) in particular provides the framework that must be followed as part of the preparation of the updated TSP. Specifically, sections 660-012-0020 through 660-012-0045 outline the requirements and implementation guidance. For compliance with Goal 12, the TSP must *provide and encourage a safe, convenient and economic transportation system* that is coordinated with urban and rural development.

The TSP must include strategies to reduce reliance on any single travel mode (provide mode choice), facilitate movement of goods and people, develop a system hierarchy for orderly and efficient multimodal travel, and preserve and protect streets and highways for their intended function. The TSP must be coordinated with and consistent with statewide, regional, and local plans. Within Metropolitan Planning Organizations, such as RVMPO, the TSP must identify strategies to reduce reliance on single-occupant vehicle travel. These strategies must address travel demand management (TDM), transportation system

management (TSM), parking, pedestrian improvements, bicycle improvements and transit system improvements.

2003 TSP Assessment Relative to the Statewide Planning Goals

The City's adopted TSP and Development Code both include general requirements to provide safe and convenient pedestrian, bicycle and vehicular travel and are generally compliance with the statewide goals. Additional measures could be incorporated into both to strengthen the implementation of the identified strategies and specifically to develop an integrated pedestrian and bicycle system.

The TSP discusses four Transit Oriented Development (TOD) areas throughout the City that are intended to help implement the regional multi-modal goals. At present, none of these areas has been developed in the manner intended. Additional consideration of implementation strategies and incentives may be explored as part of the TSP or as part of future Development Code updates. The role of the TODs in fulfilling needed increased densities

The automobile component of the TSP assesses capacity and safety needs at key intersections throughout the city. In an effort to minimize major capital expenditures that don't have a high benefit/cost ratio, the concept of alternative Level of Service was explored as part of the 2003 TSP. This assessment only focused on the number of intersections that would need capacity improvements rather on associated costs and impacts to other modes. As part of the TSP update, if alternative standards are again considered, additional technical information may be necessary to strengthen the documentation necessary to consider adoption and implementation. Further, the adoption of new standards may be an integral component of the UGB amendment process in order to support higher densities within the existing UGB. As noted within the current TSP, the City's concurrency standard (LOS D) can limit the ability to implement higher densities, potentially conflicting with other land use goals.

Oregon Transportation Plan (OTP, 2006)

As stated, the goal of the Oregon Transportation Plan (OTP) is to provide "a safe, efficient and sustainable transportation system that enhances Oregon's quality of life and economic vitality." It outlines seven goals and related policies that guide local, regional and state planning. The goals include:

- Goal 1 – Mobility and Accessibility
- Goal 2 – Management of the System
- Goal 3 – Economic Vitality
- Goal 4 – Sustainability
- Goal 5 – Safety and Security
- Goal 6 – Funding the Transportation System
- Goal 7 –Coordination, Communication and Cooperation

The Oregon Transportation Commission (OTC) adopted the first OTP in September 1992 and an updated OTP in September 2006. In addition to establishing a statewide vision, the OTP meets a legal requirement that the OTC develop and maintain a plan for a multimodal transportation system for Oregon, addressing economic development and efficiency, safety, and environmental quality. The OTP also implements the Federal Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU, 2005) requirements for a state transportation plan. As the Oregon Transportation System Plan, the OTP meets a number of statewide planning goals, including land use planning requirements for State agency coordination and Goal 12, the Transportation Planning Rule.

As part of the policy and implementation elements of the OTP goals, a framework is provided for cooperation between ODOT and local agencies and guidance is provided for the development of local TSPs and modal plans. As part of the implementation of OTP Goal #6, local governments must prepare an analysis of future city, county and state funding for the short, medium and long term planning horizons and develop alternative transportation improvement projects that reflect a revenue-constrained funding scenario.

To support the OTP, the state has adopted individual modal components that provide more detail regarding policies and implementation. Table 1 identifies the relevant modal elements as well as the year of adoption by the Oregon Transportation Commission.

Table 1 OTP Modal Plan Components

Oregon Transportation Plan Element	Year Adopted
Aviation System Plan	Originally adopted in 2000; the Oregon Aviation Plan was updated in 2007
Bicycle and Pedestrian Plan	Originally adopted in 1995; this plan is currently being updated
Transportation Safety Action Plan (TSAP)	Originally adopted in 1995; the TSAP was updated in 2004 and amended in 2006
Public Transportation Plan	1997
Highway Plan	Originally adopted in 1999 (with subsequent amendments)
Rail Plan	2001

2003 TSP Assessment Relative to the OTP

Per the OTP, the 2003 includes a framework for a multimodal system that generally addresses the seven goals outlined. The TSP does include a financial plan inclusive of near-term, mid-term, and long-term funding projections based on various types of revenue streams. The revenue forecast was premised on a reduced SDC rate structure beyond 2014 with the repayment of revenue bonds. These estimates forecast a \$53 million revenue shortfall between the identified system needs through 2023 and available funding. Identified project needs within the TSP were prioritized within a three-tiered system based on funding status and time period needed. The updated TSP will need to address current revenue projections and respond to the need for a financially constrained system within an MPO.

Oregon Highway Plan

The Oregon Highway Plan (OHP) defines policies and investment strategies for Oregon’s State highways for the next 20 years. Additionally, it refines the goals and policies of the OTP and is part of Oregon’s Statewide Transportation Plan. The OHP has three main elements:

- A Vision for the future of the State highway system that describes economic and demographic trends in Oregon, future transportation technologies, the policy and legal context of the Highway Plan, and pertinent information on the current highway system;
- Goals, policies, and actions items for: system definition, system management, access management, travel alternatives, and environmental and scenic resources; and
- An analysis of State highway needs, revenue forecasts, descriptions of investment strategies and implementation strategies, and performance measures.

The OHP provides policy and investment guidance for local corridor plans and TSPs, but it leaves the responsibility for identifying specific projects and modal alternatives to these plans.

The OHP has been amended several times since its original adoption in 1999. These amendments have addressed the designation of expressways, changes in mobility standards, designation of Special Transportation Areas, and other changes affecting the classification and standards for highways throughout the state.

OHP Amendment 00-04 established alternative mobility standards for the Rogue Valley MPO affecting the South Medford Interchange (SMI) and the OR 99/Stewart Avenue intersection. Under this amendment, the SMI can exceed a volume-to-capacity ratio of 1.0 for up to four hours per day, and the OR 99/Stewart intersection can exceed a volume-to-capacity ratio of 1.0 for up to two hours per day. When the improvements for the SMI are fully constructed and operational, the alternative mobility standards will expire and the SMI will be subject to standards consistent with its statewide designation.

Per the OHP, the following intersection performance measures are applicable for facilities within Medford:

- Volume-to-capacity (v/c) ratio of 0.80 for I-5, given its classification as an Interstate Highway within a Metropolitan Planning Organization (MPO). For the I-5 ramp terminals, the applicable volume-to-capacity ratio depends on the designation of the cross-street. If the crossroad requires a v/c smaller than 0.85 than the crossroad dictates; otherwise the applicable ramp terminal standard is a v/c of 0.85.
- Volume-to-capacity ratio of 0.80 for OR 62 given its classification as a Statewide, NHS Expressway (east of Delta Waters Rd) and Freight Route (east of I-5) within a Metropolitan Planning Organization (MPO) east of OR 99. The Freight Route designation for OR 62 ends at I-5, continuing west as a Truck Route.
- Volume-to-capacity ratio of 0.90 for OR 238 and OR 99 given their classification as District Highways within an MPO.

The highway standards above reflect signalized performance standards. At stop-controlled intersections, the appropriate mobility standard is based on the classification of the intersecting roadway.

2003 TSP Assessment Relative to the OHP

The Oregon Highway Plan was and will continue to be relevant in the assessment of ODOT facilities in the current and updated TSPs. The OHP describes the classification and management goals for State facilities throughout Medford (I-5, OR 238, and Pacific Highway – OR 99). State mobility standards for the existing and no-build conditions will be developed based on the designations and the adopted alternative mobility standards contained within the OHP.

Oregon Public Transportation Plan

As a modal element of the OTP, the Oregon Public Transportation Plan provides a long range vision for the public transportation system in Oregon. This system incorporates public and private transportation providers and is comprised of ridesharing and volunteer programs, taxis and minibus service, and intercity and intracity bus and passenger rail services. The Public Transportation Plan outlines three primary goals and associated policies and strategies that guide the public transportation through the year 2015. In recognition of limited resources, the Plan prioritizes elements that deliver service to “those Oregonians most dependent on the public transportation system (seniors, disabled, low-income, and youth).

2003 TSP Assessment Relative to the Public Transportation Plan

Per the Transportation Planning Rule (TPR), all local transportation system plans (TSPs) within MPOs must contain a public transportation plan. The existing TSP includes a Public Transit Plan. This Plan incorporates strategies to enhance the designated Transit Oriented Districts, develop an interconnected

pedestrian, bicycle, vehicular, and transit system, and further enhance the transit system. These strategies will also contribute to RVMPO Regional Plan goals.

The TSP update will not include technical analyses of the Public Transportation Plan. Rather, Rogue Valley Transit District's long-term plans and strategies will be incorporated into the updated TSP. Public transportation will continue to be an integral part of providing Medford's citizens, workers, and visitors with a reliable, efficient and accessible transportation system.

Oregon Bicycle and Pedestrian Plan

The Oregon Bicycle and Pedestrian Plan outlines key characteristics that should be considered related to accommodating bicycles and pedestrians when planning and designing state facilities. The Oregon Bicycle and Pedestrian Plan does not require specific standards for non-ODOT facilities. However, the plan recommends that land use patterns, transportation system layout, public transportation system design, and other planning related issues should consider the impact to bicycle and pedestrian users and to the bicycle and pedestrian system as a whole. To this end, the plan provides specific design recommendations for bicycle and pedestrian friendly facilities.

The updated Bicycle and Pedestrian Plan has not yet been finalized nor adopted by the OTC. The draft plan recognizes the role that safe, attractive, convenient and easy to use bicycle and pedestrian facilities plan in the provision of the state and local transportation systems. The draft includes seven chapters that provide guidance on on-road bikeways, restriping, bicycle parking, walkways, street crossings, intersections and shared use paths. While not adopted, the draft plan can serve as a good resource for state and local planning efforts.

2003 TSP Assessment Relative to the Oregon Bicycle and Pedestrian Plan

The existing TSP contains a non-motorized transportation plan that addresses bicycle and pedestrian system needs, goals and policies. Like the Public Transportation element, the TSP update will not include specific technical analyses relative to the bicycle and pedestrian plan but will continue to recognize the important role that these modes play in the provision of a sustainable, safe and efficient transportation system.

South Medford Interchange (27) Interchange Area Management Plan

The South Medford Interchange (27) Interchange Area Management Plan (IAMP) was prepared in September 2007. The IAMP identifies and evaluates anagement measures to ensure the long-term viability of the now constructed single point urban interchange (SPUI) that provides access to the new Garfield-Highland Connector. This IAMP included analyses of years of 2010 and 2030 and found that the SPUI provides adequate capacity to accommodate the horizon year projections. Recommendations to extend the viability of the interchange beyond the horizon period include strategies to reduce single-occupant vehicles, improve transit, manage parking, prioritize system management, and require development to assess their impacts to the State facilities at this location.

2003 TSP Assessment relative to the IAMP

The TSP was adopted prior to the IAMP. However, the current TSP acknowledges that the City must adopt access management plans and signal spacing standards within the interchange vicinity as part of future TSP updates. These requirements are intended to preserve the long-term integrity of the operations of the interchange and the associated local street infrastructure. This provision is also a requirement of the IAMP.

As part of the TSP update, assumptions made regarding future land use patterns in the vicinity of the interchange should be compared to current modeling efforts.

ODOT I-5 Rogue Valley Corridor Plan

The I-5 Rogue Valley Corridor Plan includes an evaluation of the I-5 corridor from south of Ashland (Interchange 11) north beyond Central Point (Interchange 35). The purpose of this study is to document traffic conditions along the corridor under existing conditions and two future year scenarios (2034 and 2050). The 2034 conditions were forecast based on the 2034 financially constrained Rogue Valley Metropolitan Planning Organization (RVMPO) travel demand model; the 2050 scenario is based on a scenario developed by the 2050 RVMPO Regional Problem Solving efforts.

Currently, the ongoing ODOT I-5 Rogue Valley Corridor Plan process is evaluating conceptual future alternatives. The analysis conducted to date has showed that none of the study facilities exceed mobility standards under existing conditions. However, the interchanges through Medford are forecast to exceed capacity under both of the future year scenarios.

Future alternatives for the study corridor include considerations such as adding ramp metering to on-ramp facilities and include adding travel lanes in each direction on I-5 through the Medford area. The cost of the latter alternative, and potentially other alternatives, are greatly increased by the required widening of the Medford Viaduct. Other alternatives through the Medford area include constructing improvements on alternative facilities to I-5 to alleviate congestion, including OR-99 and local roadways. These alternatives will be evaluated further and a final recommendation will be included in the final report for this study.

2003 TSP Assessment relative to the Corridor Plan

The development of the I-5 corridor plan is currently on-going. The study considers a holistic look at the overall I-5 corridor through Medford and throughout the Rogue Valley. The study identifies the long-term freeway needs from a management and operations perspective, and will identify a preferred alternative to guide future facility investments.

Within the corridor study there is the consideration that as congestion increases along the I-5 corridor some level of traffic may reroute to parallel facilities, particularly Highway 99. An account of both facilities is included within the corridor analysis to understand these inter-related needs. As the corridor plan identifies improvement and investment strategies for the Interstate and Highway 99 these improvements should be incorporated into the TSP update.

Statewide Transportation Improvement Program

The Statewide Transportation Improvement Program (STIP) is the State's four-year transportation capital improvement program. It includes identifies the funding and schedule for multimodal transportation programs and projects. It also fulfills the requirements of the Federal Safe, Accountable, Flexible, Efficient, Transportation Equity Act: a Legacy for Users (2005).

The current STIP lists the transportation projects programmed for the four-year period from 2010 to 2013. It is a compilation of projects utilizing various Federal and State funding programs, and includes projects on the State, county and city transportation systems as well as projects in the National Parks, National Forests, and Indian Reservations.

2003 TSP Assessment relative to the STIP

The 2003 TSP incorporated the STIP projects that were programmed at the time of its development. The TSP Update will incorporate relevant projects into all of the future scenarios that are analyzed.

There are a number of projects identified within the current STIP in Medford, including:

- 15497: Develop Transportation Management Plan for RVMPO (2010, \$94,000)
- 15691: Street sweeper purchase for City streets (2010, \$250,000)
- 15667: Street sweeper purchase for Jackson County (2010, \$170,000)
- 15666: Rogue Valley Transit District on-board diagnostic system (2011, \$110,000)
- 15692: Crater Lake Avenue & Jackson Street Alley paving (2012, \$1,219,000)
- 17240: Garfield Avenue (Columbus to Peach) roadway reconstruction to include bicycle lanes, sidewalks, curb and gutter (2010-2011, \$1,572,000)
- 17241: Adaptive Signal Timing: Install adaptive signal equipment along Crater Lake Avenue (2010, \$275,000)

Although each of these is important to the maintenance and operations of the transportation system, not all of these are specifically relevant to the TSP update. The completion of projects 15497, 17240 and 17241 will inform the analyses of future scenarios within the TSP update.

Rogue Valley Regional Transportation Plan

The current Rogue Valley Regional Transportation Plan (RTP) was adopted in April 2009. The RTP is a collaborative effort encompassing the City of Medford, White City, Eagle Point, Phoenix, Ashland, Talent, Jacksonville, Jackson County, Rogue Valley Transit District, ODOT, and Rogue Valley Council of Governments. The plan assesses horizon year 2034 conditions, and includes a 20-year horizon for air quality attainment goals.

There are nine goals with associated policies and actions identified in the RTP. The goals include:

- “Plan for, develop and maintain a balanced multi-modal transportation system that will address existing and future needs.
- Optimize Safety and Security of the transportation system.
- 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.
- Maximize efficient use of transportation infrastructure for all users and modes.
- Use incentives and other strategies to reduce reliance on single-occupant vehicles.
- Provide an open, balanced, credible process for planning and developing the transportation system.
- Encourage use of cost-effective emerging technologies to achieve regional transportation goals.
- Use transportation investments to foster economic opportunities.”

The regional plan encompasses local plans and project priorities, but is focused on regionally significant projects and impacts of regional planning on travel behavior and environment. The following projects are included in the RVRTP and are within, or in the direct vicinity of, Medford city limits. The projects are labeled as short-term, medium-term, or long-term goals, as identified in the RTP.

- Garfield Avenue, Kings Highway to Peach Street – Add continuous turn lane with bike lanes and sidewalk (Short-Term)

- S. Holly Street, Garfield Avenue to Holmes Way – Construct new 3-lane street with bike lanes and sidewalks (Short-Term)
- Columbus Avenue, McAndrews Road to Sage Road – Extend Columbus to Sage, with center turn lane, bikes lanes, sidewalks (Short-Term)
- Coker Butte Road, OR 62 to East of Crater Lake Avenue – Move Coker Butte Road north, realign Crater Lake Avenue, add sign (Medium-Term)
- Standford Road, Coal Mine Road to Cherry Lane – Construct new three lane street with bike lanes and sidewalks (Medium-Term)
- Owens Drive, Crater Lake Avenue to Foothill Road – Construct new three lane street with bikes lanes and sidewalks (Long-Term)
- Lear Way, Coker Butte Road to Vilas Road – Construct new two lane street with bike lanes and sidewalks (Long-Term)
- Coker Butte Road, Lear Way to Haul Road – Construct new five lane street with bike lanes and sidewalks (Long-Term)

2003 TSP Assessment relative to the RTP

The existing TSP was prepared when the 2001 – 2023 RTP was in-place. The existing TSP highlights compliance of the TSP with the policies and projects that were relevant at the time.

The TSP Update will need to be consistent with the 2009 RTP and will incorporate strategies and projects that help the region achieve the performance standards. Further, the regional travel demand model, RVMPO.2 was updated as part of the 2009 RTP. The regional model forecasts travel demand in order to identify the near-term, mid-term, and long-term system needs. These forecasts were prepared based on the coordinated population forecasts presented within the Jackson County TSP, which identify a growth in Medford's population from 80,233 people in 2009 to 123,569 in 2034. Employment forecasts were derived from the Regional Problem Solving (RPS) process and show Medford employment increasing 30 percent between 2009 and 2034 (from 55,684 today to 72,659 jobs in the future). This model will serve as the basis for the forecasts for the TSP Update.

Rogue Valley Transportation Improvement Program

The current Rogue Valley Transportation Improvement Program (RVTIP) was adopted in March 2009. Based on a review of the projects included within the program, the only capacity enhancing project that is currently funded is a signalization project at the OR 238/Ross Lane intersection. The improvement was identified with a year 2010 construction date.

2003 TSP Assessment Relative to the RVTIP

The existing TSP included those projects that were relevant at the time of adoption. The TSP Update will incorporate the OR 238/Ross Lane intersection improvement in the consideration of all future scenarios. Coordination with RVMPO staff will ensure that any additional projects included in the TIP are incorporated into the TSP update as well.

RVMPO Freight Study

The 2006 RVMPO Freight Study addresses the various freight modes that are served within by the transportation system within the MPO, including trucking, pipeline, rail and air. In general, the report creates a profile of the freight industry, identifies the goods that are being moved throughout the area,

identifies the strengths and weakness of the current system, and recommends ways in which the system can be improved.

There are two rail providers in the Medford area: Central Oregon and Pacific Railroad (abbreviated as CORP) and White City Terminal and Utilities (WCTU). CORP is a feeder line to Union Pacific, though it was noted that some companies in Medford truck goods to Portland for a more direct and reliable connection to the Burlington Northern Santa Fe (BNSF) line given the challenging terrain and size limitations along the CORP line.

Based on 2002 data, the study notes that trucks represent 40 – 50 percent of the total traffic volumes on I-5 within Medford. Further, trucks carry 98 to 99 percent of all freight (by tonnage and value) through the Medford area. Approximately half of the freight along the I-5 corridor is destined to or for or local to the RVMPO area; only half of the freight traffic on the MPO transportation system is “through travel”.

The study also acknowledges that Medford serves as a key interstate freight hub. This is partially attributed to the laws that prevent the use of triple trailers in California. The City serves as a transfer center where triple trailers are removed for travel to the south or added for trips to the north.

The study forecasts that truck traffic will continue to be the predominant freight mode in the future. As a result, Medford is faced with the challenge of designing and maintaining facilities that can accommodate the dimensional/geometric, compatibility, and reliability challenges faced by freight traffic within an urban area.

Surveys of various freight carriers and businesses cited that key barriers to freight movement within the MPO are:

- Poor signal timing
- Congestion
- Highway locations
- Unreliable rail
- Cost
- Affordable employee housing
- Weather

The Freight Study designates the following facilities as freight routes in Medford:

- Biddle Road
- Airport Road
- Coker Butte Road
- Cardinal Avenue
- Lear Way
- Delta Waters Road
- Sage Road
- Rossanley Road
- Ross Lane
- West Main (portion)
- Columbus Avenue
- East Main (portion)
- Jackson Street
- South Holly
- East 4th
- Lozier Lane
- Barnett Road
- North Phoenix Road
- Stewart Avenue
- Garfield Street
- South Sage Road

Finally, the Freight Study notes the following existing system deficiencies: lack of direct access to industrial sites, congested conditions along the Crater Lake Highway, and a lack of north-south alternative routes to I-5.

2003 TSP Assessment Relative to the Freight Study

The 2003 TSP includes a freight plan with a focus on the regional truck system. The TSP identifies needs and deficiencies, proposed City freight routes and freight-related improvement strategies.

The TSP update will be consistent with the Freight Study. Further, major revisions to the Freight Plan element of the 2003 TSP are not anticipated as part of the update. Any future multimodal improvement projects identified in the TSP update will reflect the need to provide needed improvements along established freight routes, particularly along bottleneck areas, that improve reliability, allow increased use of industrial or resource lands and support the economic vitality of the region. Improvements that better accommodate intermodal freight travel (e.g., truck to rail) or connectivity should also be prioritized.

Greater Bear Creek Valley Regional Plan

The Bear Creek Valley Regional Plan responds to urbanization pressures on productive resource lands on the valley floor. As part of the plan, the Bear Creek Valley jurisdictions participated in a collaborative effort to identify ways to satisfy Oregon planning goals and land use rules while providing for the projected 50 percent population increase through the 20-year planning horizon. The jurisdictions utilized Regional Problem Solving (RPS) as a collaborative approach to the land use rules that provided greater flexibility given the unique aspects of the Bear Creek Valley.

The key outcomes of these efforts included a coordinated designation of urban reserve areas (URAs), increased residential densities (approximately 12% increase), and the retention of lands between communities to provide a buffer to maintain the unique “regional neighborhood” identities within the Bear Creek “regional community”.

Within each of the URAs, lands are designated as residential, industrial, commercial, institutional, or open space/parks (4,493 total acres of 9,082 allocated to Medford). Final determination of urban reserve land use designations will be provided at the time of UGB expansion. Land use efficiency models noted that nodal development, coupled with transit enhancements, provided the most effective development pattern.

Changes to the regional plan, such as UGB amendments or substantial changes to zoning, will require a plan amendment process.

2003 TSP Assessment Relative to the Greater Bear Creek Valley Regional Plan

The 2003 TSP focuses on the transportation system needs within the existing Medford UGB.

The TSP Update will also focus on the needs within the existing Medford UGB. The UGB Amendment process will analyze the potential incorporation of the URA lands, as appropriate. This analysis must address compliance with the Transportation Planning Rule (Statewide Planning Goal 12).

Bear Creek Valley Greenway Management Plan

The Bear Creek Greenway includes a regional hard-surface and ADA accessible trail system that connects Nevada Street in Ashland to Pine Street in Central Point (a 21-mile trail). Within the City of Medford the Bear Creek trail approximately follows the I-5 alignment. This trail is planned for expansion from Pine

Street to the Seven Oaks interchange, with long-term plans to extend to Emigrant Lake and the City of Rogue River. The Bear Creek Valley Greenway Management Plan was adopted in 2005 and identifies the needed management, maintenance, and safety elements to guide the overall trail operations and protect and enhance the more than \$22 million investment in the system.

2003 TSP Assessment of the Greenway Management Plan

The TSP identifies the completion and interconnection of the Bear Creek Trail as a key element of the Non-Motorized Plan, and identifies the need to widen the trail segments not currently meeting the City's 10-foot width standard. The TSP also identifies the need to provide adequate sight distance at trail intersections, and notes that crash records show that the intersection of paths and roadways experiences higher crash frequency. No changes to this are anticipated as part of the TSP update.

Rogue Valley Transportation District (RVTD) Ten-Year Long Range Plan

Within Jackson County, RVTD provides fixed-route service, paratransit service (Valley Lift), and medical transportation (TransLink), manages the regional Transportation Demand Management Plan (Way to Go! Program) and coordinates transportation planning with other agencies. In addition to providing accessible transportation to all users, the continued provision of transit service is integral to meet the regional goals and air quality conformity requirements.

The updated RVTD Ten-Year Long Range Plan was adopted in December 2007. The updated plan focuses specifically on the viability of future funding sources; at the time of plan preparation, funding shortfalls required route and service reductions.

As noted within the plan, nearly 75 percent of all regional employment occurs within ¼ mile of a transit route, and approximately 50 percent of all households within its service boundaries are located within ¼ mile of a route. Potential UGB expansions could reduce the proximity of jobs and housing to transit service or require the costly addition of new routes.

The plan notes some individuals must rely on paratransit due to the lack sufficient sidewalk connectivity between to the fixed route transit stops. Given the relatively high cost of paratransit relative to fixed route transit service, the plan notes that RVTD could experience nearly \$370,000 in annual savings if 20 percent of the paratransit riders used the fixed route system instead.

Specific to Medford, the Plan highlights the following:

- All of the fixed-route bus lines begin and end in downtown Medford; any future improvement projects in the city will need to support and acknowledge the downtown as a key intermodal transfer point;
- The development of the City's TOD areas will provide densities and land uses supportive of higher levels of transit usage and mode share. Funding shortfalls may provide challenges to providing service that is sufficient to support the build-out phases of the TOD. For this reason, alternative funding mechanisms may be required.
- Transit Signal Priority within Medford is needed to provide efficient and reliable transit service in the future.
- A fareless square in the downtown area is needed in the future.
- Major activity centers within Medford served by RVTD include Rogue Community College, Providence Hospital, Rogue Valley Medical Center, and Rogue Valley Mall.

2003 TSP Assessment:

The TSP was prepared prior to the updated RVTD plan. The TSP highlights the existing and future needs and deficiencies and a series of goals, strategies and transit improvement projects. Key near-term and long-term initiatives in the TSP include the following:

- Identification of stable funding sources.
- Expanded transit service (longer hours and weekends).
- Land use planning that accounts for transit service, including designation of major transit routes and stops (TSP Figure 7-1).
- Improvements to the collector and arterial street system including transit-supportive components such as pedestrian connectivity, convenience, and safety.
- TDM strategies and multi-modal provisions, particularly at park-and-ride lots and transit transfer facilities.
- Increased collaboration between City and RVTD staff in land use and route planning and in securing funding sources.

As noted previously, the TSP Update will incorporate the most recent RVTD plans. No additional analyses will be performed.

Jackson County Comprehensive Plan

The current Jackson County Comprehensive Plan was adopted in 2005 and completed as part of the RPS process previously described. This document serves as the long-range general land use policy document for the County and strives to meet statewide planning goal.

Several policies included in the Jackson County Comprehensive Plan are relevant to the UGB Amendment and TSP Update, including

- Conflicts between agricultural and nonagricultural land uses shall be minimized by implementing buffers and setbacks from farm uses on the periphery of urban areas, requiring lower residential densities in buffer areas, and preventing further in-fill on existing residential uses adjacent to farmland;
- Identifying suitable lands for housing;
- Coordinated residential land provisions with rural communities and unincorporated cities;
- Reductions and reallocations of density and intensity of rural and suburban lands to minimize further degradation of air quality, reduce energy consumption and reduce the long-range cost of providing public facilities and services;
- Accommodate types of industrial and commercial activities near the airport and accommodate urban area growth;
- Prohibit expansion or development of subdivisions on rural lands;
- Future major amendments to the Medford or Phoenix urban growth boundaries should consider the option of including a portion of the Highway 99 area in each boundary;
- Consider lands impacted by adjacent development for future urbanization following detailed assessment.

2003 TSP Assessment relative to the Jackson County Comprehensive Plan

The 2003 TSP was consistent with the 1994 Jackson County Comprehensive Plan. The TSP Update and UGB Amendment process will need to be consistent with and coordinated with the 2005 Update. In particular, the potential rezoning of lands within the current UGB boundaries to increase internal density will need to comply with these policies.

Jackson County Transportation System Plan

The most recent Jackson County Transportation System Plan (TSP) was adopted in March 2005. The purpose of this document is to guide the management and transportation investments throughout Jackson County through 2023. This plan analyzes all areas within Jackson County outside of the urban growth boundary and includes County requirements for areas within the MPO area. The development of the Jackson County TSP occurred simultaneous with the RPS process; coordinated land use and population estimates were provided as part of the TSP efforts though the RPS process although formal adoption was not complete prior to the TSP.

The County TSP identifies the County's intersection performance standards for MPO areas (v/c ratio of 0.95 or better) and defines various volume thresholds for each of the County's roadway classifications. The plan identifies County-wide corridor needs, including the OR 62 Expressway and the future South Stage extension east.

The County TSP notes that regional planning must require a transportation component, and UGB expansions must include a refinement plan to be amended to the City's TSP.

The County TSP was developed based on the coordinated population forecasts and is largely consistent with the RTP strategies and needs. Subsequent to the County TSP, development of the Regional Transportation Plan in 2009 has identified many of the final solutions developed as part of the RPS process and integrated key elements of the County TSP. The County TSP will be especially relevant in consideration of potential UGB amendments that extend outside of the UGB.

2003 TSP Assessment relative to the Jackson County Transportation System Plan

The 2003 TSP was prepared for consistency with the transportation element of the 1994 County Comprehensive Plan.

The TSP Update and UGB Amendment processes will need to be consistent with and coordinated with the 2005 Jackson County TSP.

Please let us know if you have any questions on these materials at (541) 312-8300.