CENTRAL LANE
METROPOLITAN PLANNING ORGANIZATION

2045 Regional Transportation Plan

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CENTRAL LANE MPO

LCOG

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CHAPTER 1: SETTING THE STAGE

The *2045 Regional Transportation Plan* (RTP) for the Central Lane Metropolitan Planning Organization (referred to in this Plan as CLMPO or Central Lane MPO) is the Eugene-Springfield urban area's long-range transportation planning document. It represents a coordinated planning process between local jurisdictions and the region's transportation agency and presents the region's goals for a safe, accessible, and efficient multimodal transportation system that will accommodate forecasted growth through a 2045 horizon year. The RTP supports policy direction and priorities identified in local planning documents to guide the project, programs, plans, and management strategies for the regional transportation system through 2045.

The 2045 RTP is an update to the CLMPO's 2040 RTP and is compliant with the requirements of the current federal transportation act, Fixing America's Surface Transportation (FAST) Act of 2015. The 2045 RTP supports forecasted land use, population, and employment growth allocations with a fiscally constrained list of projects and strategies. The 2045 RTP is also the CLMPO's first to establish a performance-based planning and programming framework to achieve the region's goals and measure progress along the way.

Transportation is at a crossroad with multiple competing demands on the current multimodal system, climate change impacts not limited to wildfires and water shortages, a global pandemic, the fundamental need for equity and housing, cutting edge innovations in technology and autonomous vehicles, and stresses on fiscal resources. These conditions make travel demand and needed forecasting increasingly challenging, but also increasingly important. This RTP is intended to provide a flexible and strategic framework from which to meet the current and future needs of the Central Lane MPO's growing community.

Two bicyclists wait to board a bus in Springfield.

CENTRAL LANE METROPOLITAN PLANNING ORGANIZATION

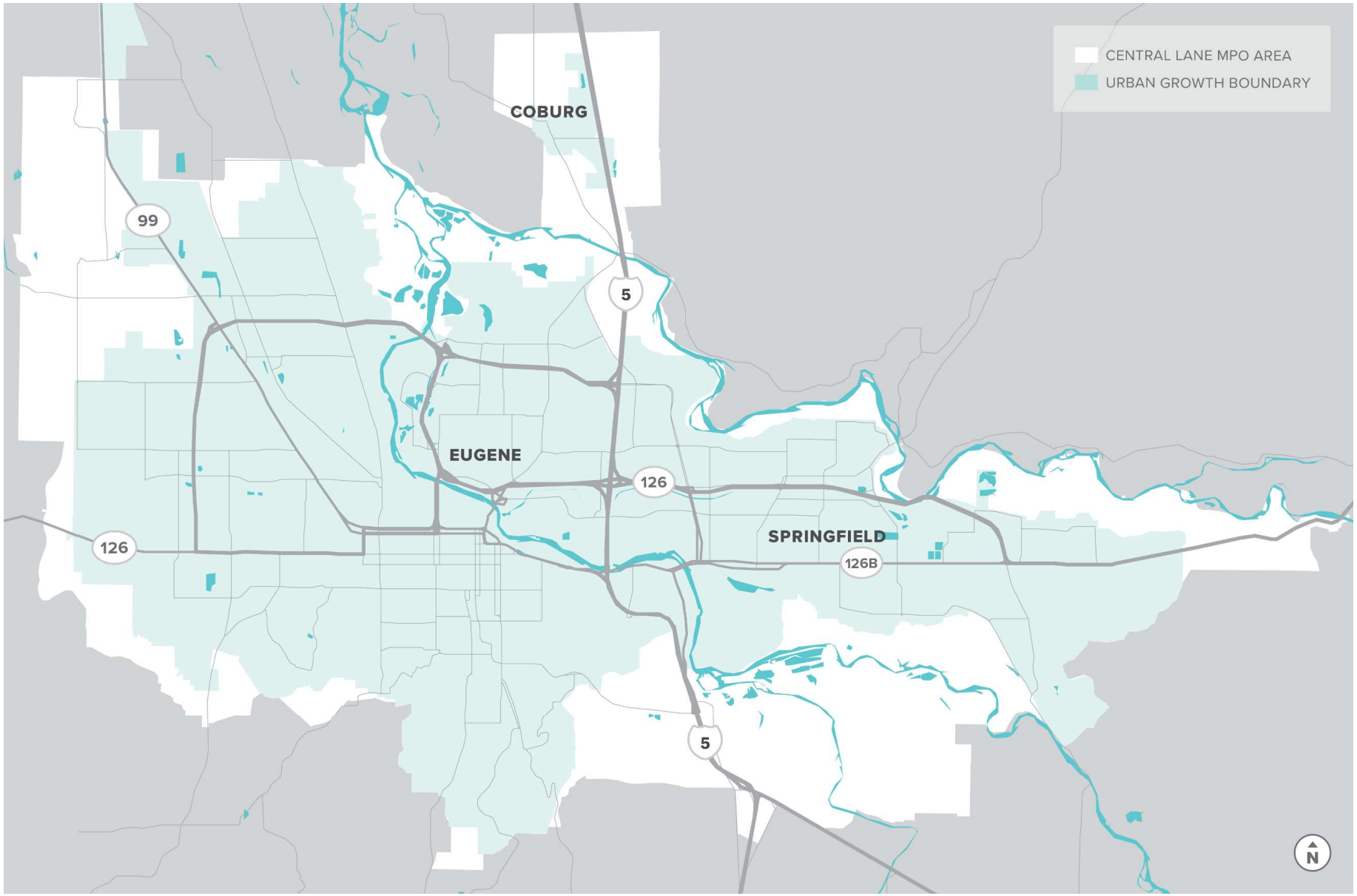
Federal legislation requires that any urbanized area with a population greater than 50,000 must have a Metropolitan Planning Organization (MPO). MPOs ensure that existing and future expenditures for transportation projects and programs are based on a continuous, cooperative, and comprehensive planning process. Among other functions and requirements, MPOs cooperate with state agencies and public transportation operators to program federal funds for eligible transportation projects. The Governor of Oregon designated LCOG as the MPO for the for the urban area which now includes the cities of Eugene, Springfield, and Coburg. CLMPO is one of over 400 MPOs across the country and one of 10 MPOs in Oregon. As such, CLMPO is the lead agency for regional transportation planning and distributing federal transportation dollars, serving as a forum for cooperative transportation decision-making by channeling federal funding for transportation projects and programs through a sound planning process that is comprehensive, cooperative, and continuing. Partner agencies include the cities of Eugene, Springfield, and Coburg, Lane County, Lane Transit District, and the Oregon Department of Transportation (ODOT).

CLMPO's policy board and decision-making body is called the Metropolitan Policy Committee (MPC). MPC is composed of public officials from Springfield, Eugene, Lane County, Coburg, Lane Transit District, and ODOT. Additional details on the decision-making structure as it relates to this planning effort are depicted in the *Decision-Making Structure* section below.

Intergovernmental coordination is a foundational role for CLMPO. This coordination is facilitated through the development of the Unified Planning Work Program and budget. Please see Appendix A for a summary of the interagency coordination that guides CLMPO's work and follows the framework identified in 23 Code of Federal Regulation (CFR) 450.316.

The MPO planning area covers the area within the urban growth boundaries of Eugene, Springfield, and Coburg and a small area of Lane County adjacent to these urban areas, as shown in Figure 1.

FIGURE 1. CLMPO PLANNING AREA



It is CLMPO's responsibility to meet federal requirements to receive funding as the U.S. Congress authorizes funding for transportation improvements nationally through multi-year authorization legislation. The primary source of federal requirements addressed in this Plan is the FAST Act. The FAST Act is federal transportation legislation that authorizes funding and establishes the requirements for the metropolitan transportation planning process that governs CLMPO's activities. The FAST Act was signed into law in 2015 and includes the requirement for transportation performance management, which defines the decision-making framework for selecting transportation projects and programs that are tied to national goal areas. In addition, system performance is tracked by applying a combination of measures and targets to assess ongoing progress towards these goals.

In combination, these requirements call for development of a multimodal transportation system plan that is integrated with the region's land use plans and meets federal and state planning requirements.

In addition to the federal requirements addressed with this RTP, CLMPO is required to maintain a Congestion Management Process (CMP). This process is documented in Appendix B and summarized in Chapter 2. The connections between the RTP and CMP are described in Chapter 2.

REGIONAL TRANSPORTATION PLAN

The federally required metropolitan transportation planning process establishes a continuous, cooperative, and comprehensive regional framework for multimodal transportation planning. As part of this process, CLMPO is required to produce an RTP that:

- Describes long-range goals, objectives, and needs for the next 20 to 25 years
- Supports the seven national goal areas summarized in Figure 2.
- Considers projects and strategies that address the ten federal planning factors shown in Figure 3.

The RTP is a blueprint to guide investments for all forms of travel – motor vehicle, transit, bicycle, and walking – and the movement of goods and freight throughout the CLMPO area. It identifies current and future transportation needs, investments needed to meet those needs, and what funds the region expects to have available over the next 25 years. The RTP is updated every four years to reflect changing conditions in the region and respond to federal and state regulatory developments.

The 2045 CLMPO RTP presents the region's vision for a multimodal transportation system that addresses future growth and demographic trends. The RTP builds upon and supports policy direction and priorities identified in local planning documents to guide the development and management of the regional transportation system through 2045.

FIGURE 2. NATIONAL PLANNING GOALS

FIGURE 3. FEDERAL PLANNING FACTORS

Federal Planning Factor 9 "Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation" and Planning Factor 10 "Enhance travel and tourism" were added to 23 CFR 450.306(b)(9) and required in RTPs after CLMPO's 2040 RTP was adopted. CLMPO staff prepared white papers to consider how both may be integrated into this RTP. Please see the following Appendices:

- Appendix C: Planning Factor 9 White Paper
- Appendix D: Planning Factor 10 White Paper

COORDINATION WITH THE CONGESTION MANAGEMENT PROCESS AND INTELLIGENT TRANSPORTATION SYSTEMS PLAN

CLMPO's RTP was developed in conjunction with two other regional plans: the Congestion Management Process (CMP) and the Intelligent Transportation Systems (ITS) Plan. The combination of the RTP, CMP, and ITS Plans uniquely connects the region's technology and transportation options priorities and strategies to address growth, congestion, environmental hazards, and transportation advancements. Figure 4 depicts the relationship between the three plans. As shown, projects from the ITS Plan are incorporated into the RTP. The CMP will inform the planning and investment decisions embedded in the RTP and subsequent implementation through projects, programs, and other implementation activities.

This integrated and concurrent approach to update the RTP, CMP, and ITS Plans resulted in an integrated set of strategies, solutions, and implementation measures.

FIGURE 4. RELATIONSHIP BETWEEN REGIONAL AND LOCAL TRANSPORTATION PLANS

PUBLIC INVOLVEMENT AND DECISION-MAKING PROCESS

The RTP's Public Involvement Plan (Appendix E) established a collaboration between CLMPO staff and the public to inform and provide direction throughout the RTP development. The CLMPO conducted outreach throughout the RTP update to share information about the project with the public and solicit input about transportation needs and funding priorities (See Appendix F for the full summary). CLMPO conducted surveys to understand how members of the public currently use the transportation system and their preferences for future developments. Due to the impact of the COVID-19 pandemic, all public engagement activities were conducted online, remotely, and through mailers, and included:

- An online open house
- A travel behavior survey
- Outreach with regional advisory committees and community groups

Online Open House

To gather feedback to inform the update of the RTP, the project team developed an online open house that included an issues map and asked people to respond to a series of questions about their thoughts and ideas regarding transportation needs and funding priorities. To increase participation from those who may not have access to the internet or who may not have known about the online open house, a bilingual mailer in Spanish and English was sent to traditionally underrepresented or excluded community members with the same questions that were in the online open house. Additionally, the team reached out to Downtown Languages to distribute a bilingual paper survey. This survey had the same questions that were in the online open house.

Advertisements for the online open house were made through the project website, social media posts, news releases to the local media, bilingual (Spanish/English) mailer and flyer, email blasts and presentations at community group meetings.

Overall, 190 people participated, with 125 participating in the online open house, 46 completing and sending back the mailer, and 19 completing the bilingual survey. Online open house participants were given the opportunity to identify specific transportation system locations in the CLMPO area where they have concerns, issues, or ideas for improvement. Seventy-nine unique users submitted a total of 268 comments. Comments from the online open house came from nine different zip codes.

Table 1 provides a summary of the number of comments by responder home region.

TABLE 1: ONLINE OPEN HOUSE RESPONDERS HOME REGION

HOME OF RESPONDER (ZIP CODE)	NUMBER OF COMMENTS
SOUTH EUGENE (97405)	29
WEST EUGENE (97402)	19
CENTRAL EUGENE (97401)	16
NORTHWEST EUGENE (97404)	13
CENTRAL SPRINGFIELD (97477)	11
EAST SPRINGFIELD/UNINCORPORATED (97478)	5
SOUTHEAST EUGENE (97403)	5
COBURG (97408)	4
UNINCORPORATED PLEASANT HILL (97455)	1

Overall, people were most focused on safety, with the primary concern being bike/pedestrian safety at intersections. The next most common concern centered on bike/pedestrian safety due to lack of bike lanes, narrow sidewalks, and/or bad signage. The third most common theme across the comments was network connectivity and connections between the different modes of transportation.

Figure 5 and Figure 6 provide snapshots of the public engagement conducted through the online open house, with a full list of the comments provided in Appendix F.

FIGURE 5. SNAPSHOT OF ONLINE OPEN HOUSE MENU

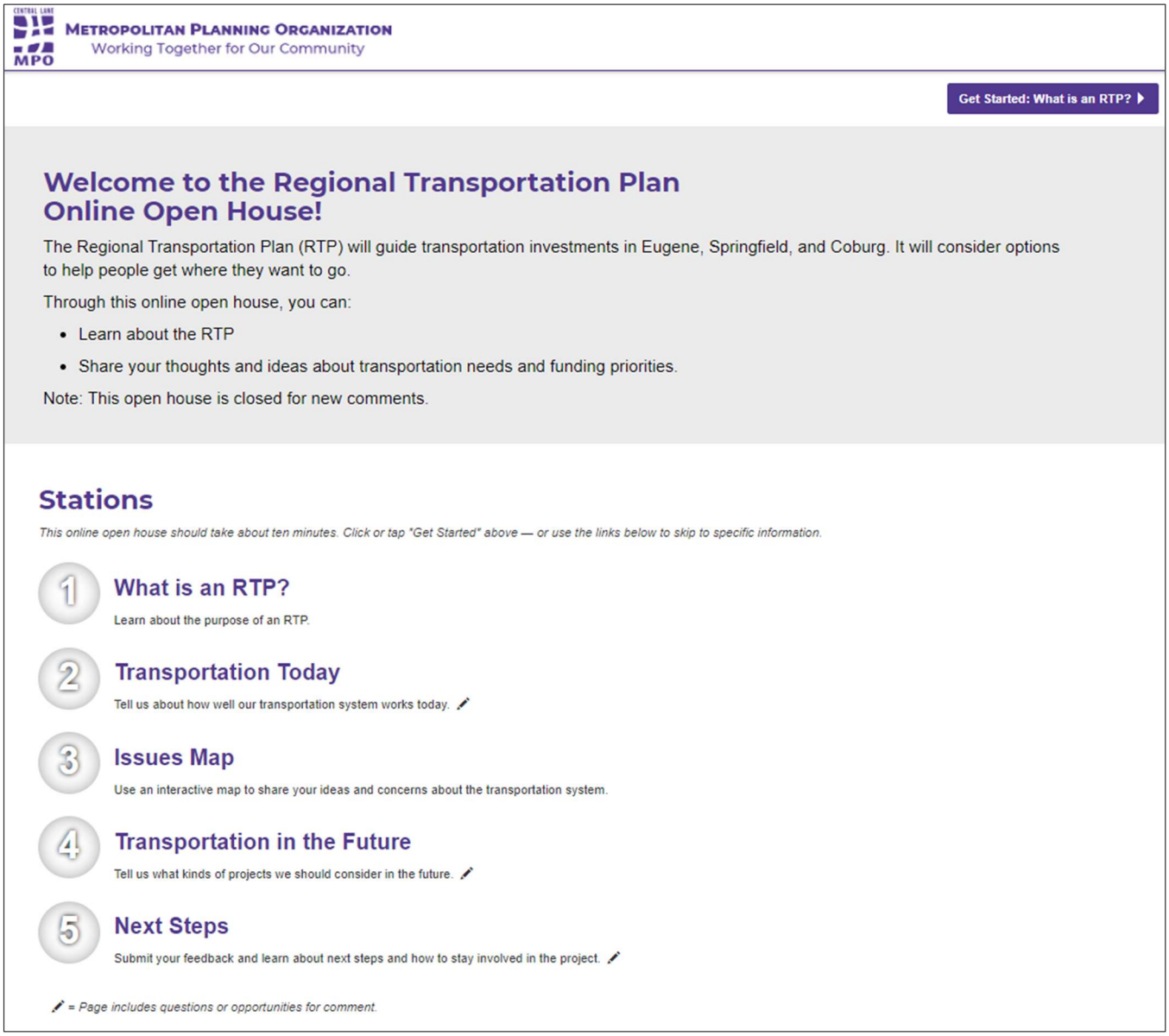


FIGURE 6. SNAPSHOT OF ISSUES MAP GENERATED THROUGH ONLINE OPEN HOUSE

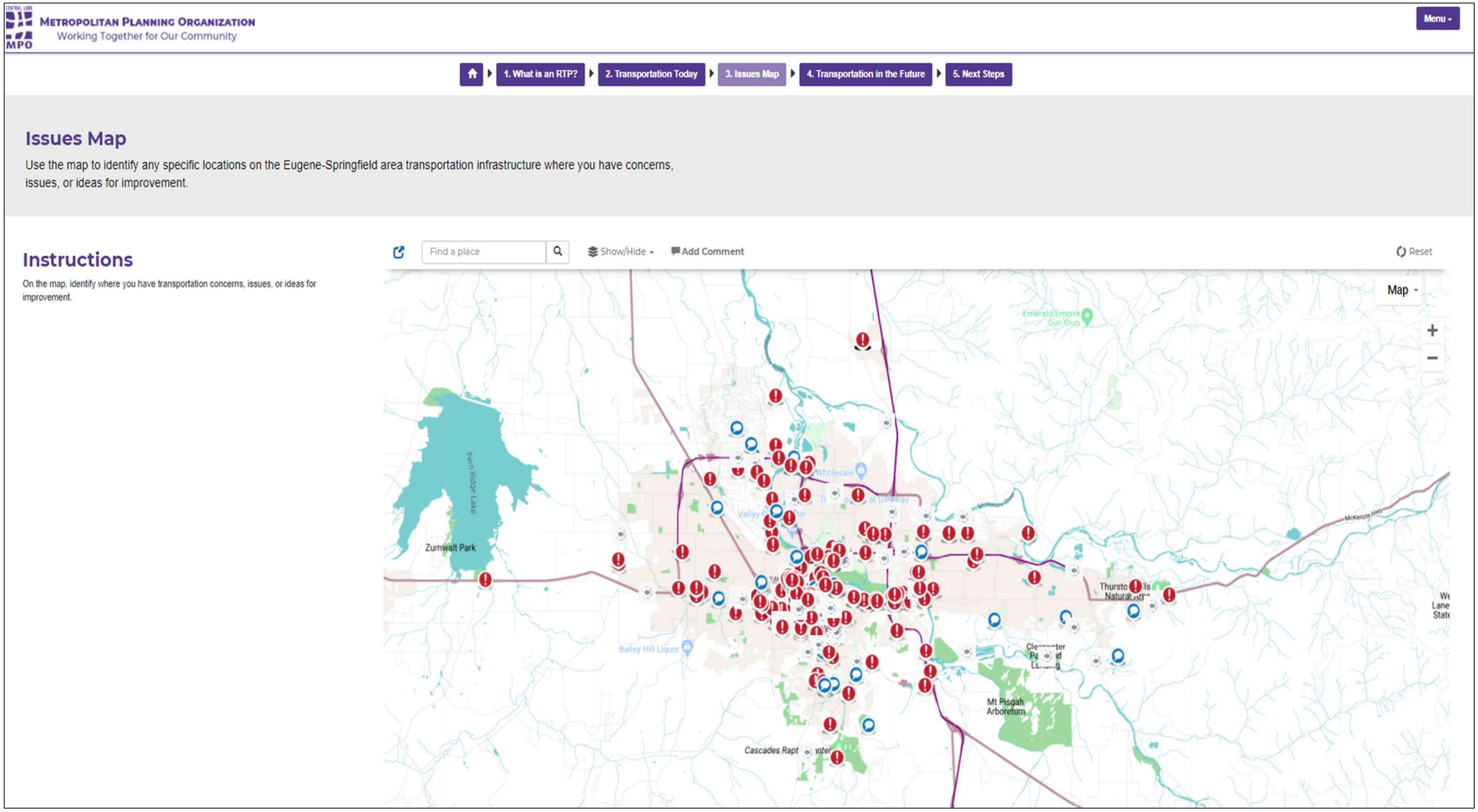
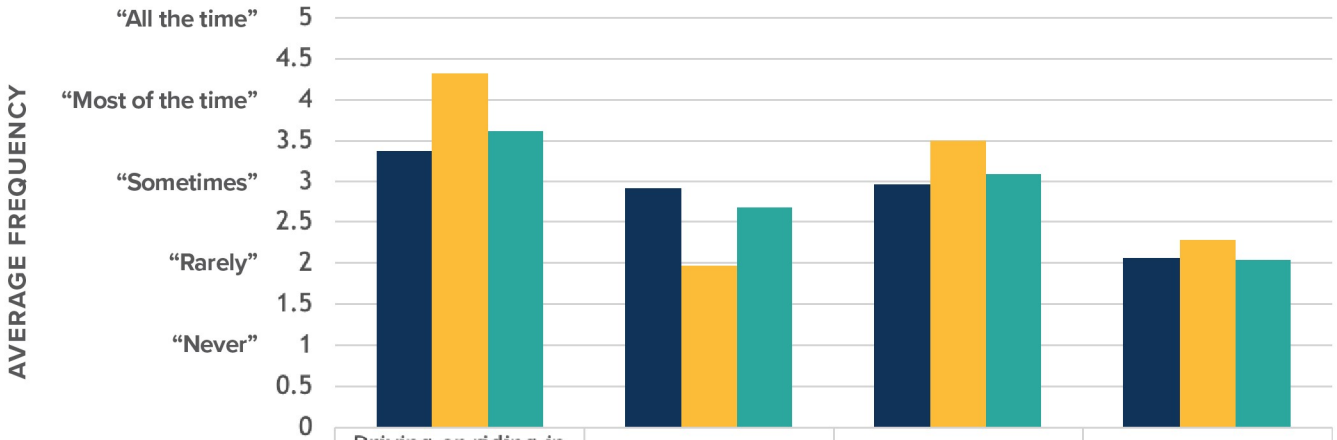


Figure 7 summarizes data from the online open house and data from the bilingual mailer for how often people use various modes of transportation. The data from the online open house have been converted from qualitative data to quantitative data where "All the time" equates to 5, "Most of the time" to 4, "Sometimes" to 3, "Rarely" to 2, and "Never" to 1, which aligns with the rating scale used in the mailer. Driving or riding in a car or other vehicle is the most used mode of transportation.

FIGURE 7. MODE USE SURVEY – FREQUENCY OF TRAVEL MODE USE



	Driving or riding in a car or other motor vehicle	Riding a bike	Walking	Taking the bus
Online Open House	3.37	2.91	2.95	2.05
Bilingual Mailer	4.33	1.97	3.50	2.28
Combined	3.62	2.69	3.09	2.03

The bilingual survey was developed as an alternative to the online open house, which was offered in English. Originally, the survey was offered in Spanish only and posted on the home page of the online open house as an opportunity for Spanish-speakers to answer the same questions that were in the open house. There were no initial responses to the Spanish Language survey; therefore, English translations of all the questions were added to the survey to make it bilingual so that it could be shared with students of Downtown Languages, a nonprofit in the Eugene-Springfield area that provides language, literacy, and other educational programs. Students from Downtown Languages who completed the survey between May 1-31, and who provided their contact information, were provided a $20 Visa gift card. Of 22 total responses, 19 people completed the survey and left their contact information.

Travel Barriers and Benefits Survey

A travel barriers and benefits survey conducted between June 25 and July 10, 2020 provides insights into regional perceptions towards travel and a better understanding of travel priorities and behavior. This survey was a follow-up to a similar survey conducted by DHM Research in 2014 and is intended to become a regular part of the public involvement process in upcoming RTP updates to provide a temporal snapshot of travel behaviors and perceptions. The survey was a hybrid of telephone and text-to-online. The sample size of 502 residents was statistically significant for the

CLMPO region and was sufficient to assess opinions generally and to review findings by multiple subgroups, including age, gender, area, and party affiliation. Appendix G provides a thorough report of the survey, responses, and findings. The summary of observations included:

- Expanding bus transportation, reducing traffic congestion, and improving road conditions are the top transportation issues for residents of the CLMPO Area.
- Driving alone is the most frequently used mode of transportation followed by driving with others in the household and walking.
- The top reasons people bike and walk for transportation are for enjoyment and for health benefits.
- There is a desire among some residents to bike or walk more often for transportation purposes.
- The top reasons people ride the bus are limited car access, financial considerations, and enjoyment.
- There is a desire among some residents to ride the bus more often for transportation purposes.
- Some residents are interested in programs that promote multimodal transportation options.
- Nearly half of residents believe telecommuting for work and school are more likely in the future.

Regional Advisory Groups and Committees

CLMPO staff conducted outreach with regional advisory committees and community groups, including:

- The Eugene Active Transportation Committee
- The Springfield Bicycle and Pedestrian Advisory Committee
- 350 Eugene
- Eugene InMotion
- League of Women Voters
- Confederated Tribes of the Coos, Lower Umpqua and Siuslaw Indians
- Confederated Tribes of the Siletz Indians
- Lane Independent Living Alliance
- Our Children's Trust
- Asian Pacific Island Community Action Team
- Centro Latino Americano
- Active Bethel Citizens
- 4J Safe Routes to School
- Springfield Safe Routes to School
- Bethel Safe Routes to School
- Springfield Alliance for Equality and Respect
- Catholic Community Services of Lane County
- Springfield Planning Commission
- Lane Kids
- Equity and Community Consortium
- Grupo Latino de Accion Directa of Lane County

- Lane County Equity and Access Advisory Board
- University of Oregon LiveMove
- Better Eugene Springfield Transportation
- Lane Community College, Native American Student Program
- University of Oregon Tribal Government Relations
- Amazon Neighbors
- Cal Young Neighbors
- Churchill Neighbors
- Downtown Neighborhood Association
- Fairmount Neighbors
- Far West Neighbors
- Friendly Area Neighbors
- Goodpasture Island Neighbors
- Harlow Neighbors
- Industrial Corridor
- Jefferson Westside Neighbors
- Laurel Hill Valley Citizens
- Northeast Neighbors
- River Road Community Organization
- Santa Clara Community Organization
- South University Neighborhood Association
- Southeast Neighbors
- Southwest Hills Neighborhood Association
- Whitaker Community Council
- Neighborhood Leaders Council
- City of Eugene's Community Bulletin

Additional outreach with local, state, and federal stakeholders and partners was sought through the RTP's Air Quality Conformity Determination (Appendix I) and Environmental Analysis (Appendix H) interagency coordination. Please see those documents for a full summary of interagency coordination for those components, which in brief included:

- Eugene Airport
- ODOT
- United States Environmental Protection Agency
- United State Army Corps of Engineers
- Oregon Department of Environmental Quality
- Oregon State Historic Preservation Office
- Oregon Division of State Lands
- Oregon Department of Land Conservation and Development

- National Marine Fisheries Service
- United States Fish and Wildlife Service
- Oregon Department of Fish and Wildlife
- Lane Regional Air Protection Agency
- Confederated Tribes of the Grand Ronde Community in Oregon
- Confederated Tribes of Siletz Indians
- Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians
- University of Oregon Tribal Government Relations
- Lane Community College Native American Student Program

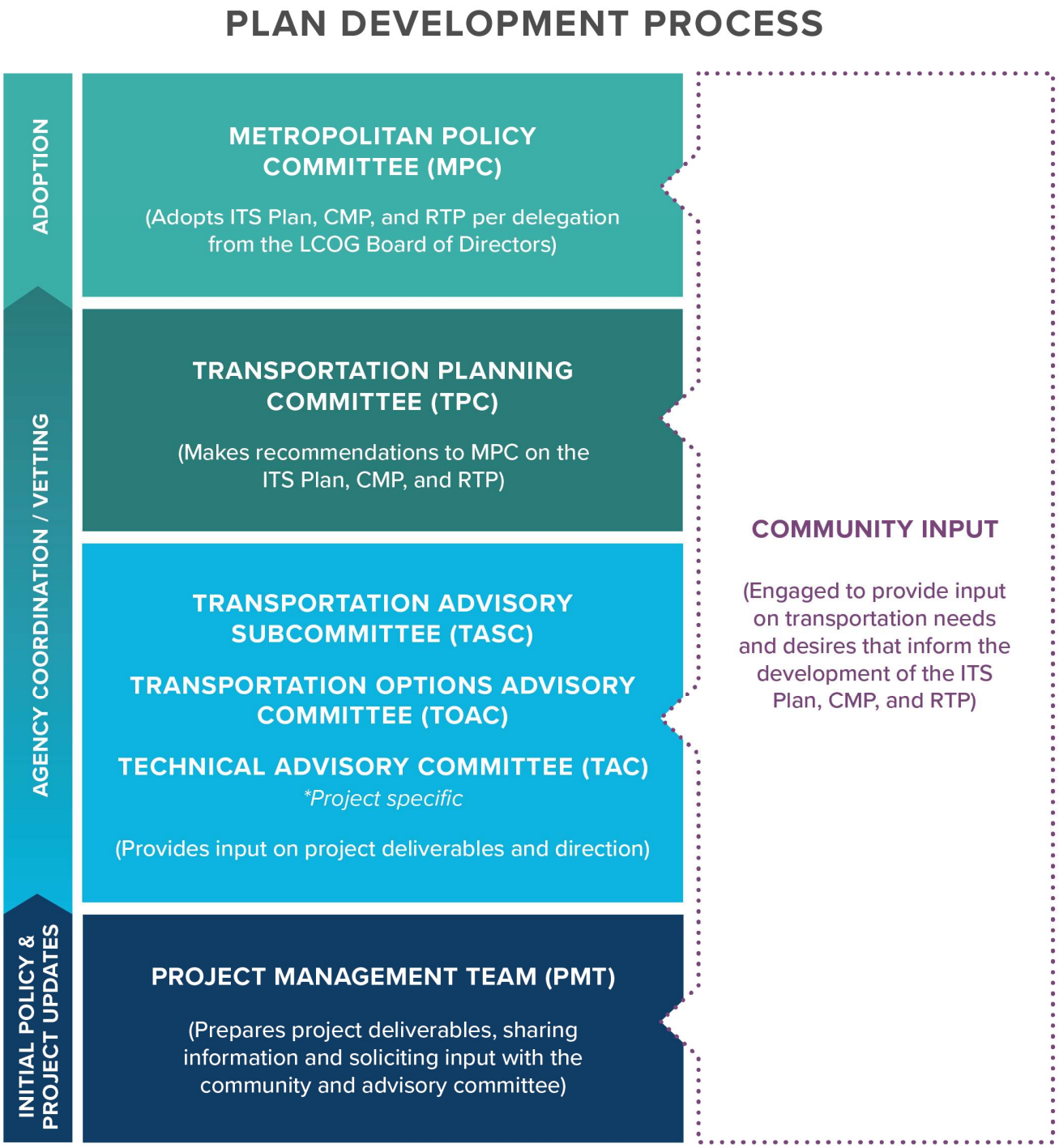
DECISION-MAKING STRUCTURE

Figure 8 displays the regional transportation decision-making structure, which primarily utilized standing committees composed of agency staff members and stakeholders. Community input from public involvement informed the decision-making process and project direction. MPC provided project feedback and direction throughout the RTP update and is the ultimate decision-maker. The Transportation Planning Committee (TPC) is composed of staff representation from the cities of Eugene, Springfield, and Coburg, Lane County, Lane Transit District, and ODOT. TPC is a technical and planning advisory committee that provides recommendations to the MPC. The Transportation Advisory Subcommittee (TASC) is a subcommittee to TPC. It is an advisory committee with a full multimodal purview. The Transportation Options Advisory Committee (TOAC) advises on active modes of travel and regional programs promoting and supporting safe and equitable transportation options including Safe Routes to School (SRTS) and the Safe Lane Coalition.

A Technical Advisory Committee (TAC) was established specifically for the ITS planning efforts. The ITS Plan's TAC was composed of transportation operations, planning, and design staff from the cities of Eugene, Springfield, and Coburg, Lane County, Lane Transit District, and ODOT. The TAC provided strategic direction, identified priorities for ITS implementation in the region and had the opportunity to review and comment on all ITS Plan-related deliverables. The members of the TAC agreed on the final project list that is incorporated into the RTP.

The Project Management Team (PMT) coordinated and provided guidance for the project. The PMT included CLMPO staff and the consultant team.

FIGURE 8. CLMPO COMMITTEE STRUCTURE FOR TRANSPORTATION DECISION-MAKING



REGIONAL MULTIMODAL TRANSPORTATION SYSTEM

The regional transportation system supports the mobility of residents and visitors within, through, to, and from the CLMPO area. The RTP's focus is on the regional multimodal transportation facilities that are defined both by the function they serve and where they are located. Facilities are included

in the regional transportation system based on their function within the regional transportation system rather than their geometric design, ownership, or physical characteristics.

The regional transportation system includes:

1. Regional motor vehicle network facilities, including all state-owned transportation facilities and all city- or county-owned arterial facilities, shown in Figure 9.
2. Regional active transportation facilities, including:
    - Pedestrian facilities, primarily sidewalks, shown in Figure 10.
    - Bicycling facilities, including bike lanes and shared streets with bicycling street markings, shown in Figure 11.
    - Regional trails, shown in Figure 12.
3. Transit network facilities and the Lane Transit District service area, shown in Figure 13 and Figure 14 respectively.
4. Passenger intermodal facilities, including the Eugene Airport, Eugene Depot/Amtrak Station, and park and rides where multiple modes may come together, shown in Figure 15.
5. Freight network and freight-related intermodal facilities, shown in Figure 16.

Together, these facilities constitute an integrated and interconnected system that supports the region's land uses and provides travel options.

A school bus drives past a pedestrian crossing.

REGIONAL MOTOR VEHICLE NETWORK

Federal Functional Classification is the system by which roads are grouped according to the type of service and amount of traffic the facility carries. Functional Classification is used to determine design standards of roads and determines Federal Aid funding eligibility. Federal Functional Classification is assigned to all public roads using federal guidelines and is approved by the Federal Highway Administration (FHWA). After each U.S. Decennial Census, the FHWA requires states to review and update their Federal Aid Urban Boundaries and Federal Functional Classification. CLMPO, along with the State of Oregon, will begin this review process in the summer of 2022 once the urban data are received from the U.S. Census Bureau. It is a process that will require cooperation of all local agencies within the region that own or manage public roads.

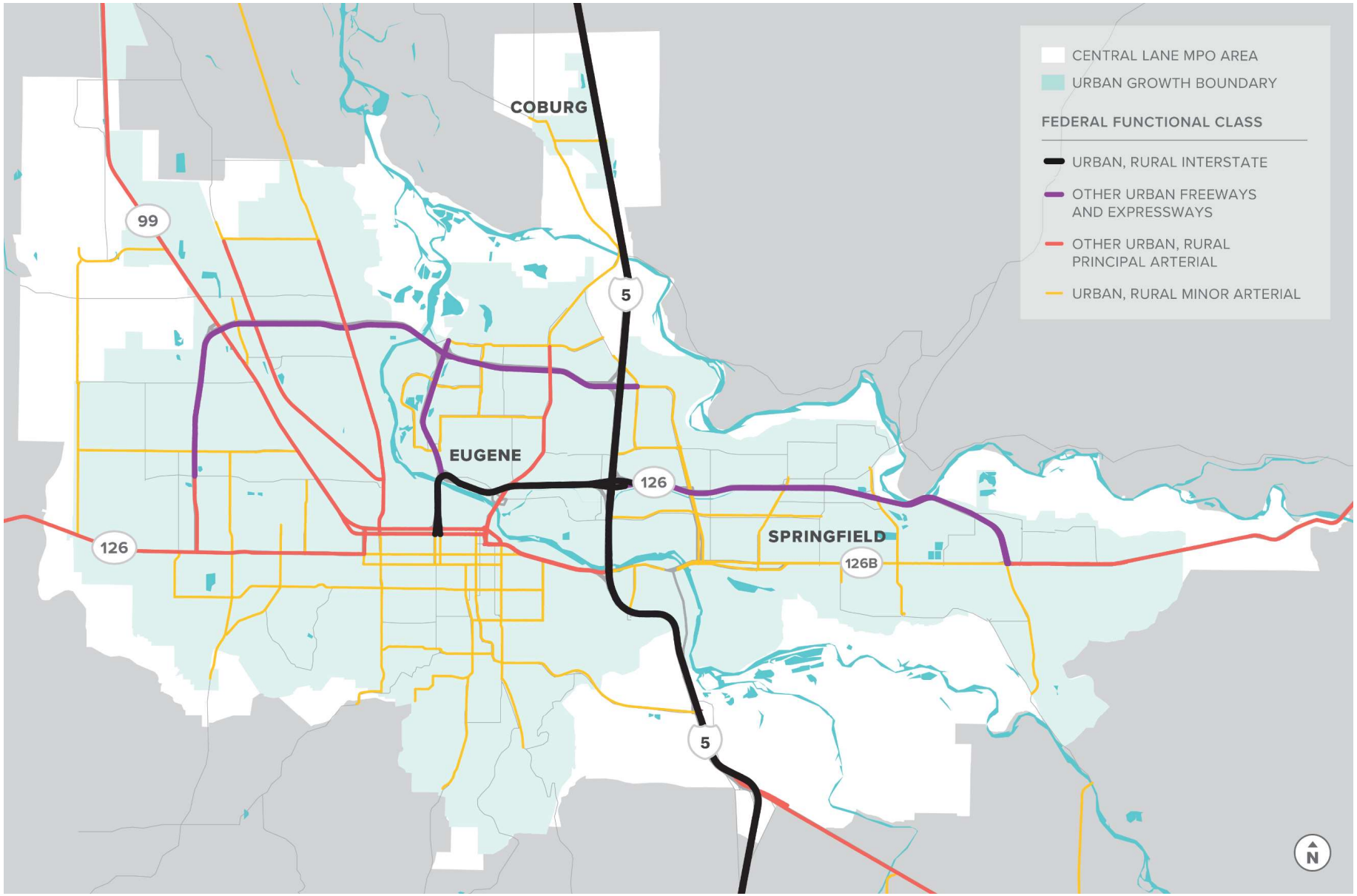
Federal Aid eligible roads include roads federally designated as:[1]

- Interstate (Urban and Rural)
- Freeways and Expressways (Urban and Rural)
- Principal Arterial (Urban and Rural)
- Minor Arterial (Urban and Rural)

The Federal Functional Classification of Roadways is shown in Figure 9.

[1] In addition to the eligible roads listed and shown in Figure 9, Major Collectors and Minor Arterials (both Urban and Rural) are also eligible for Federal Aid. For the purposes of the regional scale of this RTP, they were not included in the mapping.

FIGURE 9. FEDERAL FUNCTIONAL CLASSIFICATION OF ROADWAYS



REGIONAL PEDESTRIAN AND BICYCLE NETWORKS

Walking and biking are essential modes of transportation, serving critical connections and offering opportunity and choice in the multimodal transportation system that supports people, places, and the economy.[2] Investing in walking and biking can help create a safer, more connected, and accessible system. The benefits resulting from walking and biking networks to the local economy, health, safety, sustainability, and accessibility are well documented:

Economic Growth Benefits

A growing body of research has shown that walking and biking can contribute to a healthy economy. Benefits range from relatively direct impacts for users, such as reductions in travel costs, to more indirect impacts, such as growth in businesses related to the bike industry or congestion relief for converting short trips to walking or biking. Increases in walking and biking have potential direct and indirect impacts to the state or local economy through:

- Growth in active transportation-related industries (e.g. bike shops, bike and walking tour companies)
- Jobs created through design and construction projects related to pedestrian and bicycle improvements
- The ability for people to access employment through what may be their only source of transportation
- Increased ability for some industries to attract and retain employees due to the presence of transportation choices
- The attraction of out-of-state spending from visitors who participate in walking or bicycle tourism
- Improved livability and community attractiveness

Health Benefits

Investing in pedestrian and bicycle infrastructure, supporting educational and encouragement programs, and supporting active transportation options help to encourage physical activity for better health and may reduce health care costs by decreasing rates of chronic disease. This can be particularly beneficial when educating and encouraging youth to participate in these activities so they can learn to be more active at an early age. In addition to walking and biking, connections to transit are also essential to health, as access to transit is critical in helping those who cannot or choose not to drive to reach needed health services such as medical care.

For older adults, accessibility is a critical issue. This need will continue as the population of older adults is expected to increase significantly across the state. In addition, having places for older adults to walk and bike may help to maintain their muscle mass, which can prevent falls and reduce hospitalizations.

[2] Oregon Bicycle and Pedestrian Plan: https://www.oregon.gov/odot/Planning/Documents/OBPP.pdf

Beyond access to health services and the benefits of physical activity, access to walking or biking can be important in creating transportation options that allow for increased mobility and reduce the possibility of isolation, which can lead to mental and physical health issues.

Safety also plays a role in overall community health and health care costs, where safety improvements can help to reduce personal injuries and deaths. Other important findings about the correlation of walking and biking with improved health include:

- Active transportation facilities that are designed to be comfortable, safe, accessible, and near desirable destinations are more likely to attract a wide range of users, including people who suffer from an increased health risk due to inactivity
- Physical activity and health care cost benefits are greatest if people with increased health risks use walking and biking facilities

Four bicyclists cross an intersection using the designated bicycle crossing.

Environmental Benefits

Walking and biking are zero emission modes that play an important role in reducing fuel consumption, air and noise pollution, and carbon emissions. Increasing walking and biking for transportation is a key strategy in helping Oregon and CLMPO achieve greenhouse gas (GHG) reduction goals. As transportation is one of the highest emitting sectors, contributing to about one third of all GHG emission in the state, strategies for reducing transportation-related emissions are essential.

The ODOT *Statewide Transportation Strategy: A 2050 Vision for Greenhouse Gas Reduction* (STS) estimates the potential for people to walk or bike shorter distances is great, and that it would take approximately 40 percent of people who currently drive shorter distances to walk or bike instead in order to achieve the GHG reduction levels shown in the STS vision. According to the U.S.

Environmental Protection Agency (EPA), for every one mile pedaled or walked instead of driven, nearly one pound of carbon dioxide is saved.

The role walking and biking can play in reducing emissions is further emphasized in research that shows that motor vehicle trips contribute to disproportionately high levels of per-mile emissions, and if short trips shift from driving to walking or biking, the amount of air pollutants can be reduced.

Mobility Benefits

For people walking and biking, safe and appropriate facilities that offer direct connections to destinations and routes and provide end-of-trip accommodations, such as bicycle parking, encourage higher levels of mobility. Improving or preserving ease of movement on walking and biking networks also promotes accessibility to key destinations and improved connectivity to other modal systems, such as public transportation.

Transportation disadvantaged, including, but not limited to, mobility-limited individuals, low-income households, communities of color, seniors, youth, persons with disabilities, and those with limited English proficiency, often do not have access to a car or cannot drive. The availability of walking and biking options is critical to meeting these populations' needs.

The availability, quality, and connectivity of walking and biking facilities is especially important for older adults and people with disabilities. These individuals may not drive due to issues of poor health, limited physical or mental abilities, concerns with safety, or because they have no car. Access to modes of travel other than driving is essential to not only their mobility, but also their independence. These non-driving groups are more isolated than their driving counterparts, especially those living in rural or suburban communities and/or communities of color.

For youth, it is important to recognize the benefits of having a safe and well-connected network to access schools and other frequent destinations, such as neighborhood parks. Since school aged children often rely on walking and biking to access destinations, it is important to build a safe and robust walking and biking network so that younger populations can use the transportation system.

To ensure pedestrians' mobility, the transportation system requires frequent and safe street crossings and short distances between origins and destinations. For people who bicycle, enhanced mobility may result from protected bike lanes, bicycle parking, and other transit-oriented amenities that make it easier to integrate a bicycling trip with use of public transportation, which can be essential in making longer trips.

To further assure mobility for all users, the Americans with Disabilities Act (ADA) is instrumental in setting forth design requirements and regulations to make walking and biking options available and accessible to all.

Walkability Action Institute

The Center for Chronic Disease and Prevention (CDC) and National Association of Chronic Disease Directors (NACDD) assert that all states and communities should be designed to support physical activity and non-motorized forms of transportation so that people can have the policy, system, and

environmental supports needed to engage in active lifestyles, whether recreationally or through essential daily functions like commuting to and from work, to community destinations, and/or places of interest (community events, schools, shopping, etc.).

In 2019, the CDC and NACDD collaborated for the fifth year in a row to host a Walkability Action Institute (WAI) as a multi-day "course" for interdisciplinary teams and a CLMPO team was accepted to attend. Team members represented the Lane County Public Health, Eugene's mayor, Eugene's Traffic Operations, Springfield's Planning Commission, Lane Transit District planning, and CLMPO. Through the WAI, the CLMPO team developed an Action Plan with SMART (Specific, Measurable, Attainable, Realistic, and Timely) goals to coordinate community events that cross jurisdictional boundaries; develop a tactical urbanism implementation plan; align health and transportation data and performance measures to better inform policy, project, and programmatic decision-making around health and equity; and integrate partnerships between health and transportation throughout Lane County Public Health and transportation planning processes.

The Action Plan establishes clear goals and attainable actions, some of which have been achieved, including tactical urbanism projects. Other identified actions remain as opportunities to pursue and will be pursued in future planning and collaboration efforts.

Current Regional Pedestrian and Bicycle Networks

Walking is the most basic form of transportation, whether using a mobility device or strolling. Everyone walks, and while some choose to take their entire trip by foot, others connect to different modes by walking, such as to and from their car or the bus stop. Walking is an active form of transportation and a low-cost travel option. For purposes of this RTP, every time the term "walk" or "walking" is referenced, it is inclusive of those who stroll by foot or are using a mobility device such as a wheelchair or mobility scooter. The regional inventory of the pedestrian network is shown in Figure 10.[3] Pedestrian facilities include sidewalks, access ramps, crosswalks, and furnishings that create pedestrian-friendly streets such as benches and lighting. The presence of a sidewalk network and other developed pedestrian paths is an important ingredient for a walkable environment.

The regional bicycle network is shown in Figure 11. The regional bicycle network includes traditional bike lanes, as well as some emerging facility types that are considered more comfortable for people who bike, including shared use paths, neighborhood greenways, and protected and buffered bike lanes. The regional bicycle routes work together to form a comprehensive network spanning jurisdictional boundaries that allows people to bike to transit, schools, employment centers, parks, natural areas, and shopping.

The regional trail network is shown in Figure 12. Regional trails are a critical part of the active transportation network. Trails provide some of the most comfortable and safe facilities for walking and bicycling. They not only provide recreational opportunities but offer significant off-street connectivity between regional on-street transportation facilities.

[3] Based on available data from prior collection efforts and may not include recent improvements to the system.

FIGURE 10. REGIONAL PEDESTRIAN NETWORK

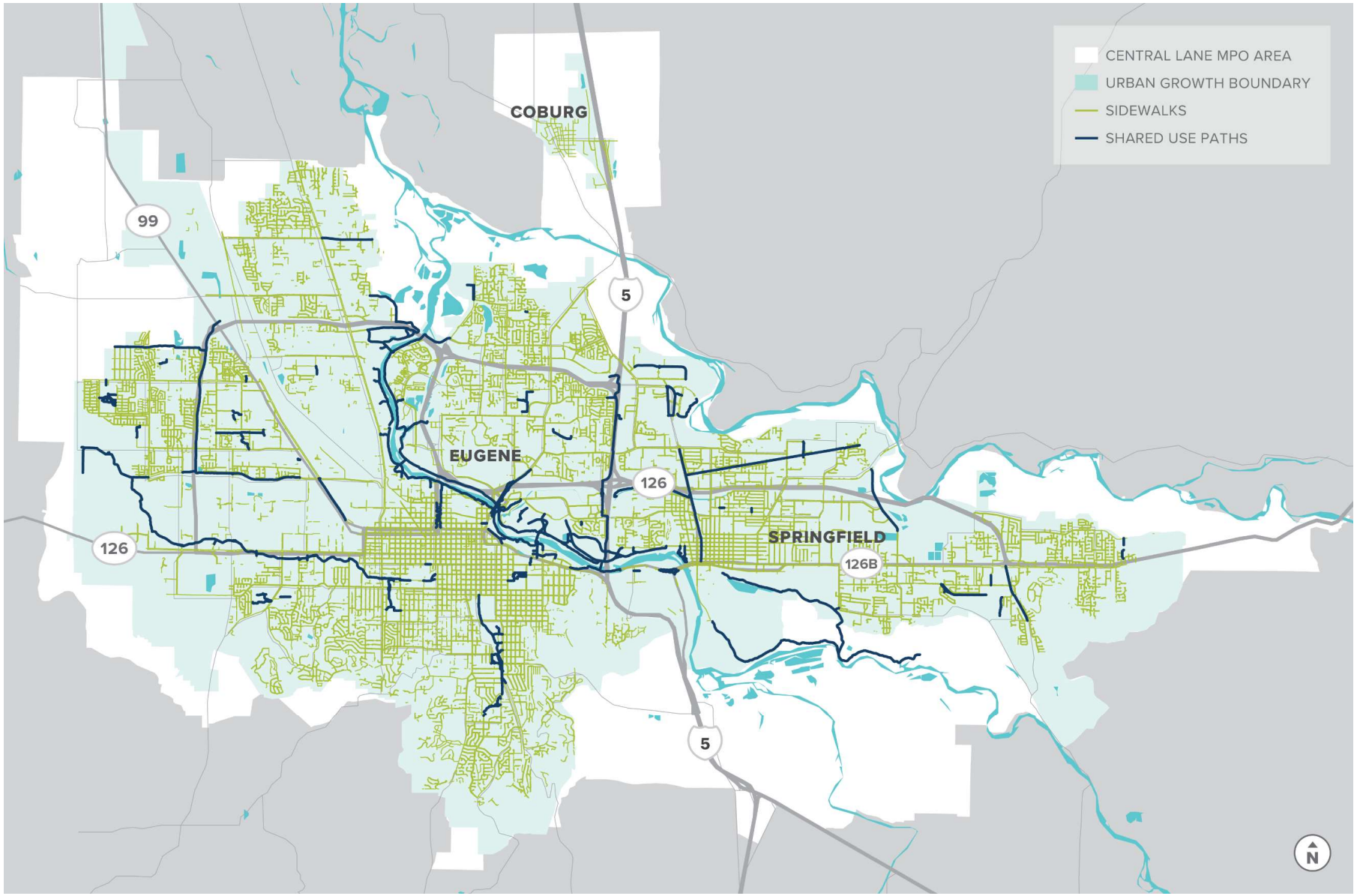


FIGURE 11. REGIONAL BICYCLE NETWORK

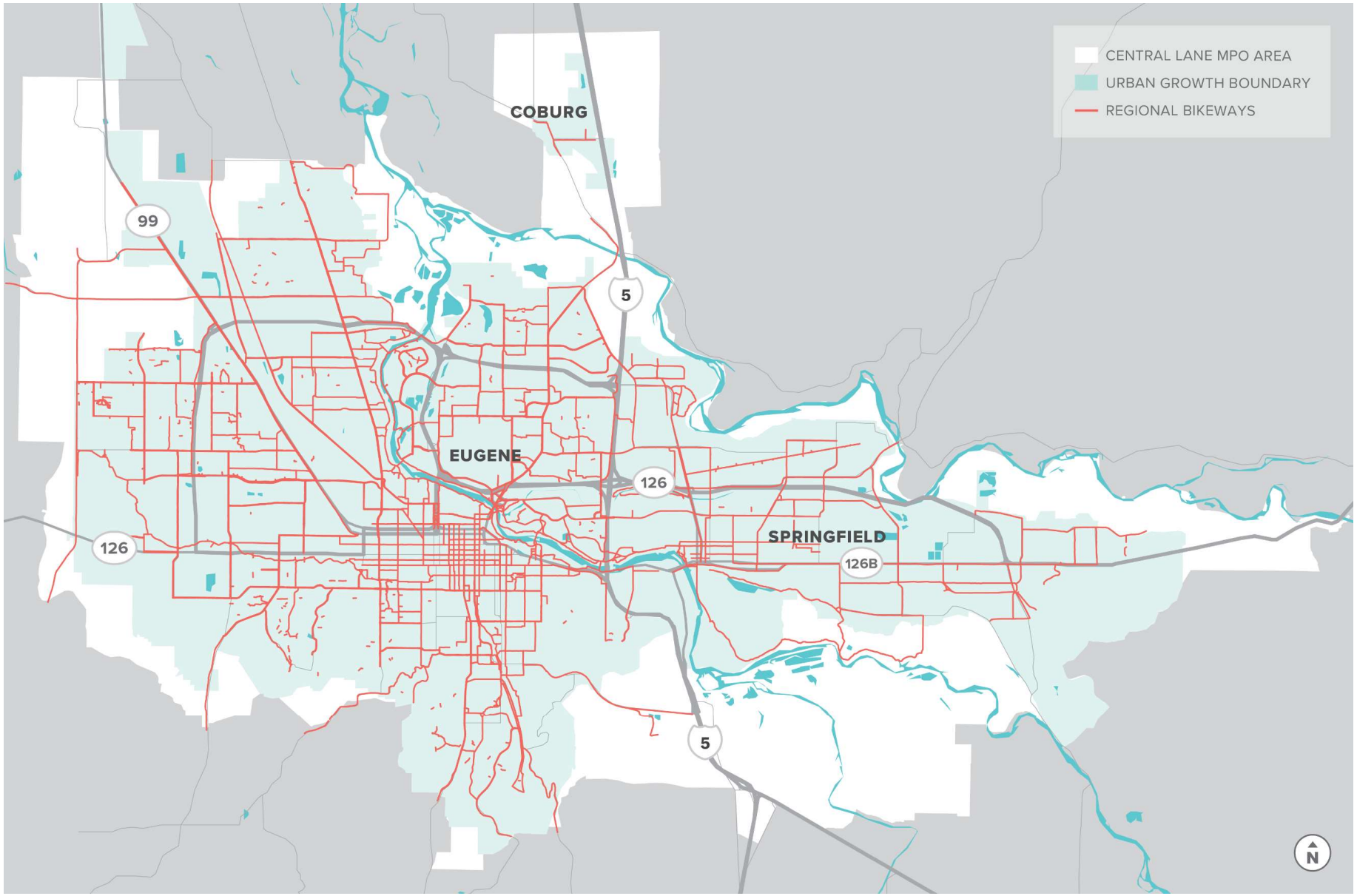
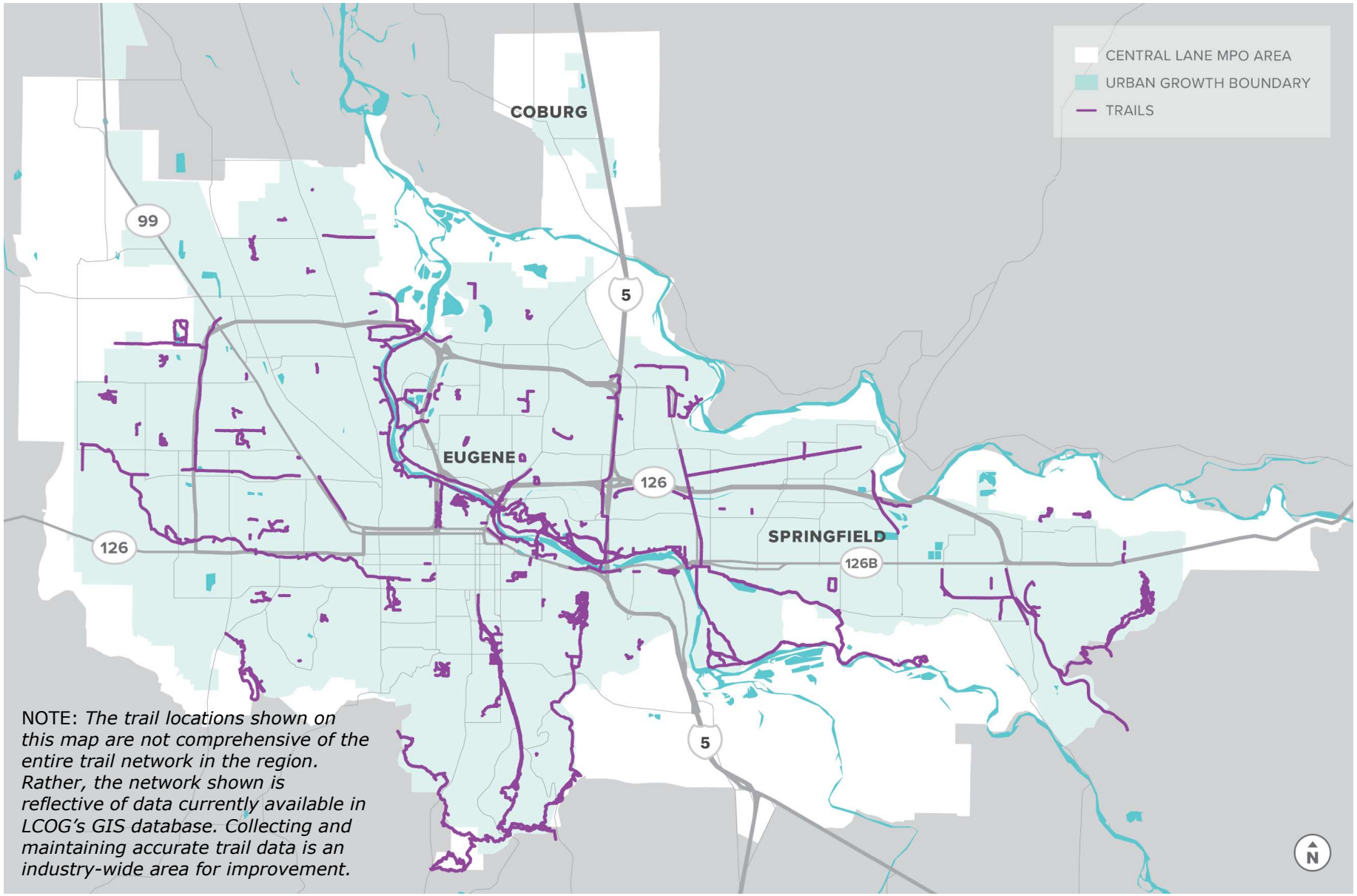


FIGURE 12. REGIONAL TRAIL NETWORK



REGIONAL TRANSIT NETWORK

Transit is a critical component of the transportation system, meeting the needs of many of the region's residents and visitors and interacting with all other modes. Investing in both intercity and intracity transit is also a key component to meeting several, if not all, of the RTP goals; supporting economic vitality, promoting better health; meeting environmental commitments, providing equitable access, making travel safer and communities more secure, contributing to resilience:[4]

Supporting Economic Vitality

The economic and community benefits of public transportation are far-ranging. Public transportation contributes to the efficient movement of people, which is essential to keeping businesses economically competitive.

Public transportation supports tourism and economic development, providing access to rural and scenic areas. Workers in rural areas rely on public transportation to connect their communities to employment centers. Public transportation can facilitate efficient use of land and provide people options to move through congested roadways. Buses and high capacity transit help optimize use of roadway capacity, benefiting drivers as well as freight movement. Less parking is needed in areas with robust public transportation systems, freeing up land for higher value uses. Public transportation is critical to an integrated transportation system, one where users have multiple modes and options that are all connected to form a single system.

Many employers make location decisions based on access to a skilled workforce. Highly skilled workers are often attracted to places with transportation options and to companies that can offer transportation benefits, such as transit passes. Public transportation offers a win-win: employees save on their commute costs and companies pay less for parking acquisition, management, and maintenance.

Promoting Better Health

Most people walk or bike to reach public transportation, contributing to more physical activity and better individual and community health. Physical activity fights chronic diseases such as heart disease, cancer, depression, and diabetes.

Public transportation can improve air quality. Poor air quality caused by vehicle emissions can aggravate asthma, chronic lung or other respiratory illnesses, and cardiovascular disease, particularly for children and older adults. Compared with private vehicles, public transportation produces 95 percent less carbon monoxide, 90 percent fewer volatile organic compounds (VOCs), and about half as much nitrogen oxide per passenger mile—meaning fewer emissions and less negative impact on community health.

[4] Benefits of public transportation are referenced from the Oregon Public Transportation Plan: https://www.oregon.gov/odot/Planning/Documents/OPTP_V1_FINAL_Feb2019.pdf

Finally, public transportation connects many who cannot drive to visit friends and families and connect with the broader community. Social isolation is increasingly a public health concern, especially for older adults and people with disabilities. Public transportation helps keep individuals connected and engaged in communities, combating social isolation and further improving public health.

Meeting Environmental Commitments

Public transportation minimizes air pollution by providing more fuel-efficient travel alternatives. GHG reduction planning throughout the state reveals that public transportation is critical to meeting climate change goals; communities are unlikely to meet these goals without it. The *Statewide Transportation Strategy: A 2050 Vision for Greenhouse Gas Reduction* identifies public transportation as a key tool for helping the state meet its legislatively established goal of reducing transportation GHG emissions 75 percent below 1990 levels by 2050. The CLMPO region is committed to supporting the state in this established goal.

Providing Equitable Access

The CLMPO region values the livelihood and contributions of all its people, making equity vital to healthy and vibrant communities. Public transportation is an important tool for addressing equitable access to opportunity, including employment, affordable housing, education, and other community resources.

Public transportation also provides affordable access to opportunities for people with lower incomes, and other transportation disadvantaged people, making the community more livable and affordable for many. Public transportation is an alternative to private automobiles for youth, older adults, and people with disabilities who cannot drive.

Making Travel Safer and Communities More Secure

As one of the safest travel means available in its own right, public transportation also improves safety by reducing crashes. Both transit riders and other vehicle drivers benefit. Per passenger mile, light rail riders have 1/30th the fatality rate of automobiles, and bus passengers are 1/60th as likely to be fatally injured while traveling compared with automobile drivers. When use of public transportation increases in a community, crash rates tend to decline for all users of the transportation system, including pedestrians, bicycle riders, motorists, and transit passengers.

Research shows that policies to increase walking, cycling, and travel by public transportation typically reduce total crime in an area. More activity and "eyes on the street" can make a community feel safer, and good design for transit stops and stations can enhance safety and security even further. Transit design best practices increasingly incorporate Community Protection through Environmental Design (CPTED) principles, which emphasize designing safety and security into the environment of a specific area, including elements such as clear sightlines, good lighting, and reducing isolated spaces.

Contributing to Resilience

Public transportation can play an important role in planning for and managing emergencies and disasters, particularly for evacuations and recovery. The CLMPO region is vulnerable to fires, flooding, and earthquakes. Public transportation agencies are important players at the table for emergency management and recovery planning.

Lane Transit District

Lane Transit District serves much of Lane County including the cities of Eugene, Springfield, Coburg, Creswell, Cottage Grove, Veneta, Lowell, Junction City, and the McKenzie Bridge River Valley out to McKenzie Bridge. Lane Transit District also provides contracted service from the CLMPO area to and from Oakridge. Lane Transit District's network is made up of local and regional bus routes, stations, and park and ride facilities. It also features the EmX Bus Rapid Transit (BRT) system that connects west Eugene to the Gateway area in Springfield. The BRT route is more frequent than the other bus routes and carries more transit riders than the rest of the regional and local bus system. Figure 13 shows a snapshot of the Lane Transit District transit network and Figure 14 shows the Lane Transit District service boundary.

Emerald Express Bus Station on 11th Street in Eugene.

Lane Transit District maintains a *Lane Coordinated Public Transit-Human Services Transportation Plan (Lane Coordinated Plan).* The Lane Transit District Board of Directors adopted the most recent version in 2019. Federal transit law requires that projects selected for funding under the Enhanced Mobility for Individuals and Individuals with Disabilities (Section 5310) Program be "included in a locally developed, coordinated public transit-human services transportation plan," and that the plan be "developed and approved through a process that included participation by seniors, individuals with disabilities, representatives of public, private, and nonprofit transportation and human services providers and other members of the public" utilizing transportation services. These coordinated plans identify the transportation needs of individuals with disabilities, older adults, and people with low incomes, provide strategies for meeting these needs, and prioritize transportation services for funding and implementation.[5] LCOG transportation coordinators from the Senior & Disabilities Services participate in the planning and implementation of this Plan. Strategies and projects to support the identified needs are included in the RTP projects list.

RideSource

Lane Transit District provides Dial-a-Ride, or paratransit service, called RideSource. RideSource is a specialized service for seniors, people with disabilities, and people who are eligible for transportation benefits through the Oregon Health Plan. The RideSource ADA service is an origin-to-destination service within the Eugene-Springfield metropolitan area and is available to people traveling within the urban area who are unable to access the bus due to a disability.

[5] https://www.transit.dot.gov/funding/grants/coordinated-public-transit-human-services-transportation-plans

FIGURE 13. REGIONAL TRANSIT NETWORK

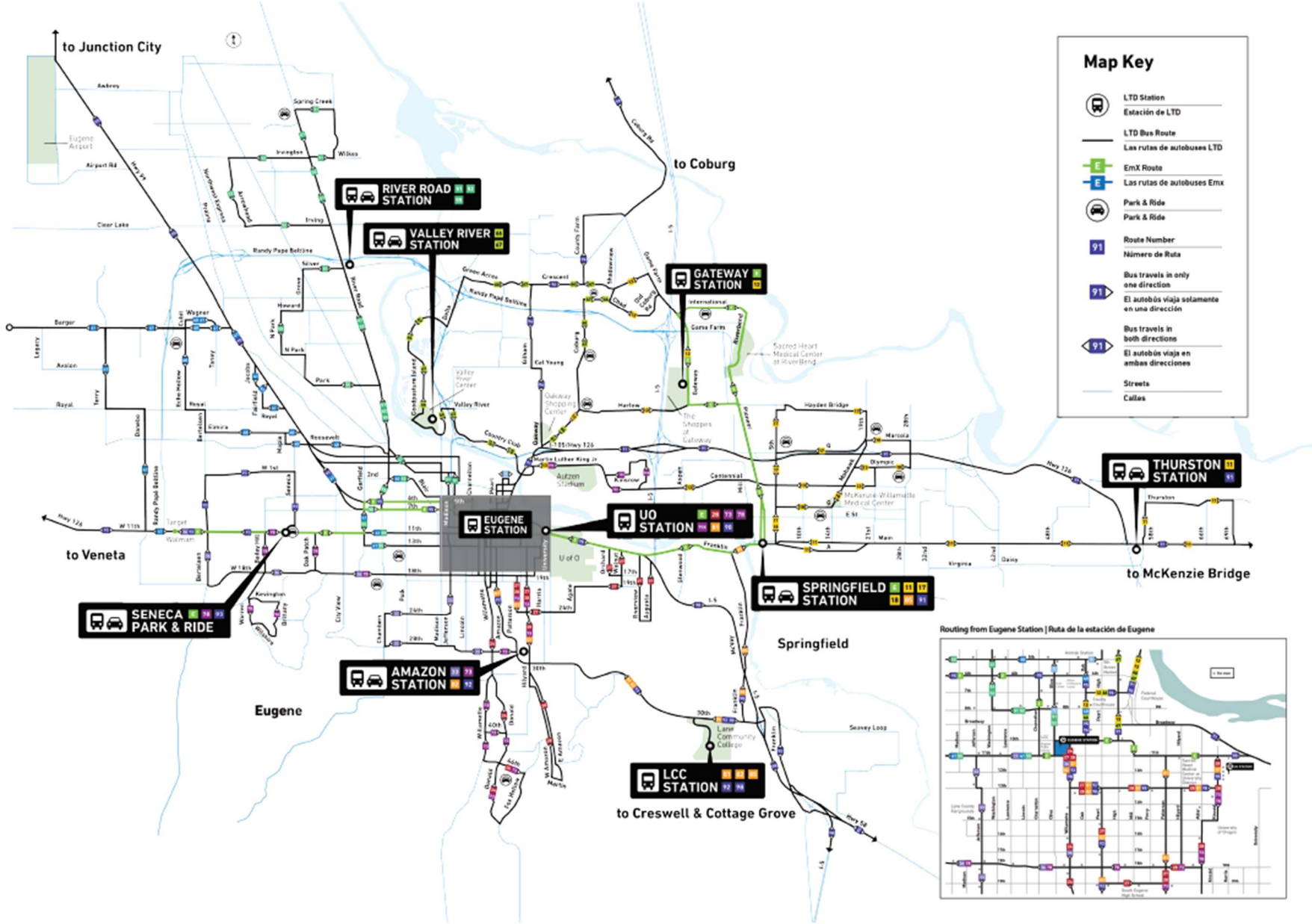
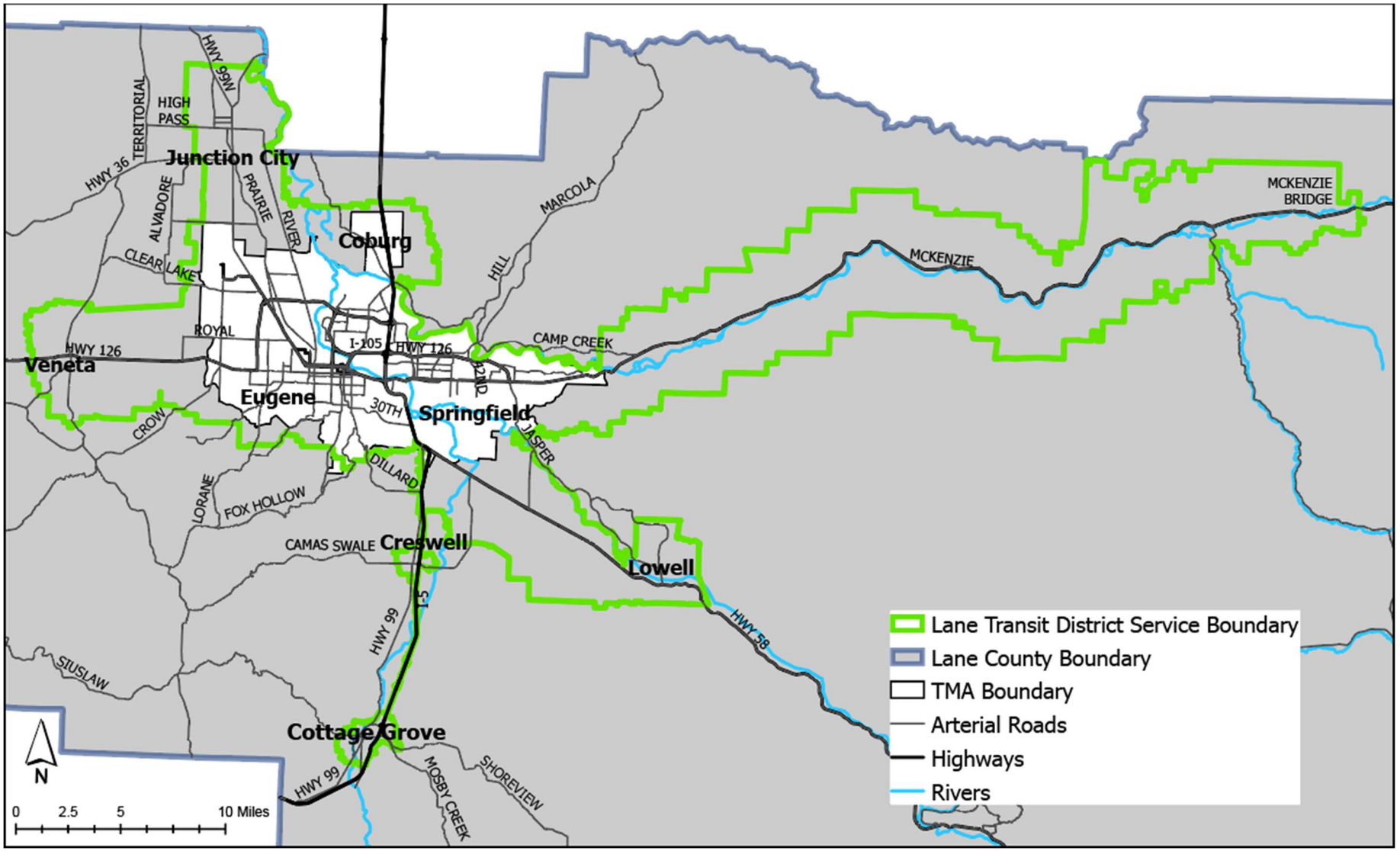


FIGURE 14. LANE TRANSIT DISTRICT SERVICE AREA

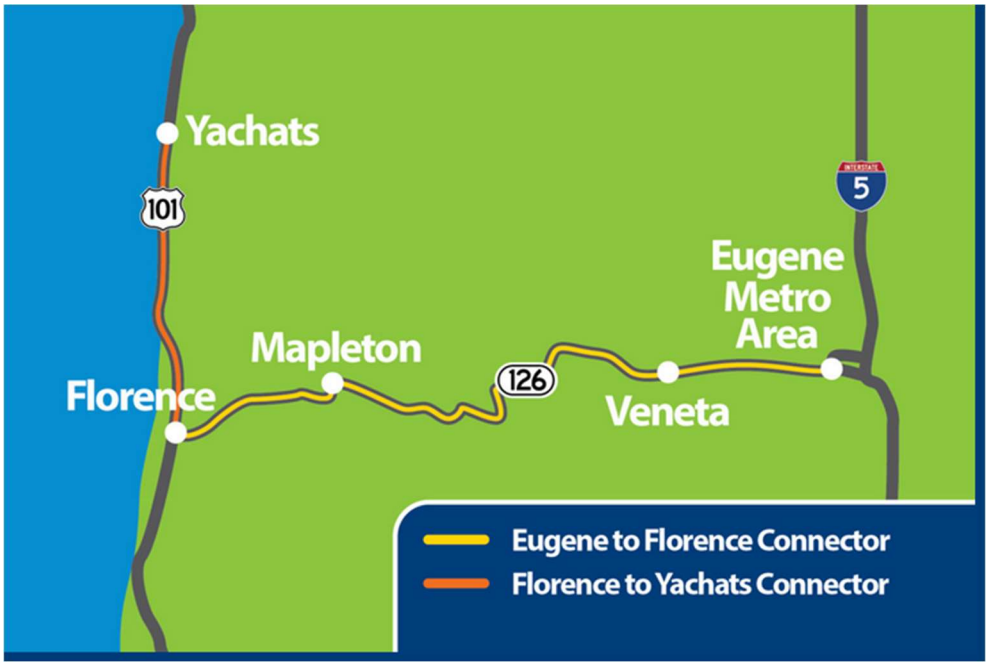


Intercity Bus Routes

LCOG provides intercity bus routes via its public transportation service called Link Lane. Link Lane operates two intercommunity routes: the Eugene-Florence Connector and the Florence-Yachats Connector.

The Eugene-Florence bus operates in partnership with the Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians, seven days per week with two routes per day. The Florence-Yachats Connector runs four routes Monday through Saturday.

Link Lane bus stop at the Amtrak Station in Eugene.



Link Lane bus routes.

The CLMPO area is also served by BoltBus, FlixBus, Cascades Point, and Eugene to Bend daily bus services. BoltBus markets itself as a "premium brand of service launched in 2008 offering safe, non-stop premium level bus transportation…"[6] In 2012 Bolt Bus expanded operations to the West Coast and now connects Eugene from the 5th Street Market to Vancouver, BC, Canada with stops in Albany, OR; Portland, OR; Bellingham, WA; and Seattle, WA in between. The service on the west coast and Canada is exclusively owned and operated by Greyhound Lines, Inc.

FlixBus launched in 2013 in Germany and in 2018 launched in the United States, "…providing America with a new alternative in long-distance travel."[7] Trips originate and terminate at Agate Street and 15th Avenue to and from stops in Corvallis, OR; Salem, OR; Portland, OR; Olympia, WA; Tacoma, WA; and Seattle, WA.

Cascades Point bus service is a four-route intercity bus service provided by ODOT.[8] The service functions like a thruway bus service for Amtrak making direct connections to passenger rail service and selling tickets through Amtrak's system. The routes served by Point include Northwest (Portland-Astoria), Cascades (Portland-Eugene), Eastern (Bend-Ontario), and Southwest (Klamath Falls-Brookings). The Eugene-Springfield Amtrak station is the southern terminus of the Cascades Route, a 3-hour ride stopping in Albany, Salem, Woodburn, Tualatin, and at the northern terminus in Portland. There are currently four trips per day in each direction.

The Eugene to Bend daily bus services is provided by Pacific Crest Bus Lines.[9] This route leaves from the Bend Hawthorne Station at 7:00AM. Stops are at the Eugene Greyhound Station (9:45AM) and the Eugene Amtrak Station (10:10AM). The return trip departs from the Eugene Amtrak Station at 11:10AM; with a stop at the Eugene Greyhound Station (11:20AM) and final stop at the Bend Hawthorne Station (2:15PM).

REGIONAL PASSENGER INTERMODAL FACILITIES

Figure 15 shows regional facilities that accommodate or serve as transfer points to interconnect various transportation modes for the movement of people. This includes the Eugene Airport, Amtrak Station in Eugene, Greyhound Bus Station in Springfield, and park-and-ride lots. These intermodal locations serve as important hubs that allow both local and regional travelers to transfer to other modes of travel. These other modes include air, rail, and bus. Each of these modes helps to serve multiple travelers and is less impactful to the transportation system than if each traveler drove alone for the duration of their trip. Maintaining accessibility to these regional transfer points is critical to maintain the use of these modes for discretionary travel options.

[6] https://www.boltbus.com/faq/

[7] https://www.flixbus.com/company/about-us

[8] Oregon-Point, Oregon-point.com

[9] https://pacificcrestbuslines.com/eugene-to-bend/

Eugene Airport (EUG)

The Eugene Airport (EUG) is a small-hub airport and the second largest airport in Oregon. It serves an area encompassing 91 zip codes with a population of approximately 730,3803. Additional information about connecting destinations for EUG is listed in Chapter 3.

Amtrak Station in Eugene

The Amtrak station in Eugene is located in downtown Eugene and experiences approximately 85,000 passengers per year, as recorded in 2019.[10] It is served by Amtrak's *Coast Starlight* passenger train and the *Amtrak Cascades* corridor. The *Coast Starlight* runs along the West Coast between Seattle and Los Angeles making major stops in Portland and the San Francisco Bay area. The Coast Starlight carried 426,029 passengers during fiscal year 2019, an increase of approximately 2% from 2018.[11] The Amtrak station is also the southern terminus of the *Amtrak Cascades* corridor, connecting the Central Lane MPO area to Vancouver, British Columbia as the northern terminus, with stops in Seattle and Portland. Eleven trains operate along the corridor each day, with two between Vancouver, BC and Portland, three between Seattle and Portland, one from Portland to Eugene, and three between Eugene and Seattle. No train travels directly through the length of the corridor. Ridership in 2019 was estimated to be 802,895 total riders for the year, with approximately 2,200 riders daily.[12]

The Amtrak Station also serves as a hub for the Link Lane Eugene-Florence Connector, Pacific Crest Bus Line's Eugene to Bend Route, and the Cascades Point bus service.

Greyhound Bus Station

Greyhound Lines, Inc. is the largest provider of intercity bus transportation serving 2,400 destinations and nearly 16 million passengers each year throughout the United States and Canada.[13] Greyhound offers same-day and early-next-day package delivery; BoltBus operations; premium city-to-city service; Greyhound Connect (a service that connects rural communities to larger Greyhound markets); and has interline partnerships with a number of independent bus lines across the United States.

The Greyhound Bus Station is in downtown Springfield. Regional stops are also made at the Amtrak Station in downtown Eugene and via the BoltBus in Eugene's 5th Street Market.

Lane Transit District Park and Rides

Lane Transit District has 17 park and rides throughout the Central Lane MPO area. There are also five additional park and rides in rural communities providing service into and out of the MPO area, one each in in Creswell, Veneta, and Cottage Grove, and two in Junction City. Park and ride lots allow commuters to easily and conveniently connect with transit or their carpool or vanpool. Parking is free and available on a first-come, first-served basis.[14]

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[10] Amtrak Fact Sheet, Fiscal Year 2019, State of Oregon.

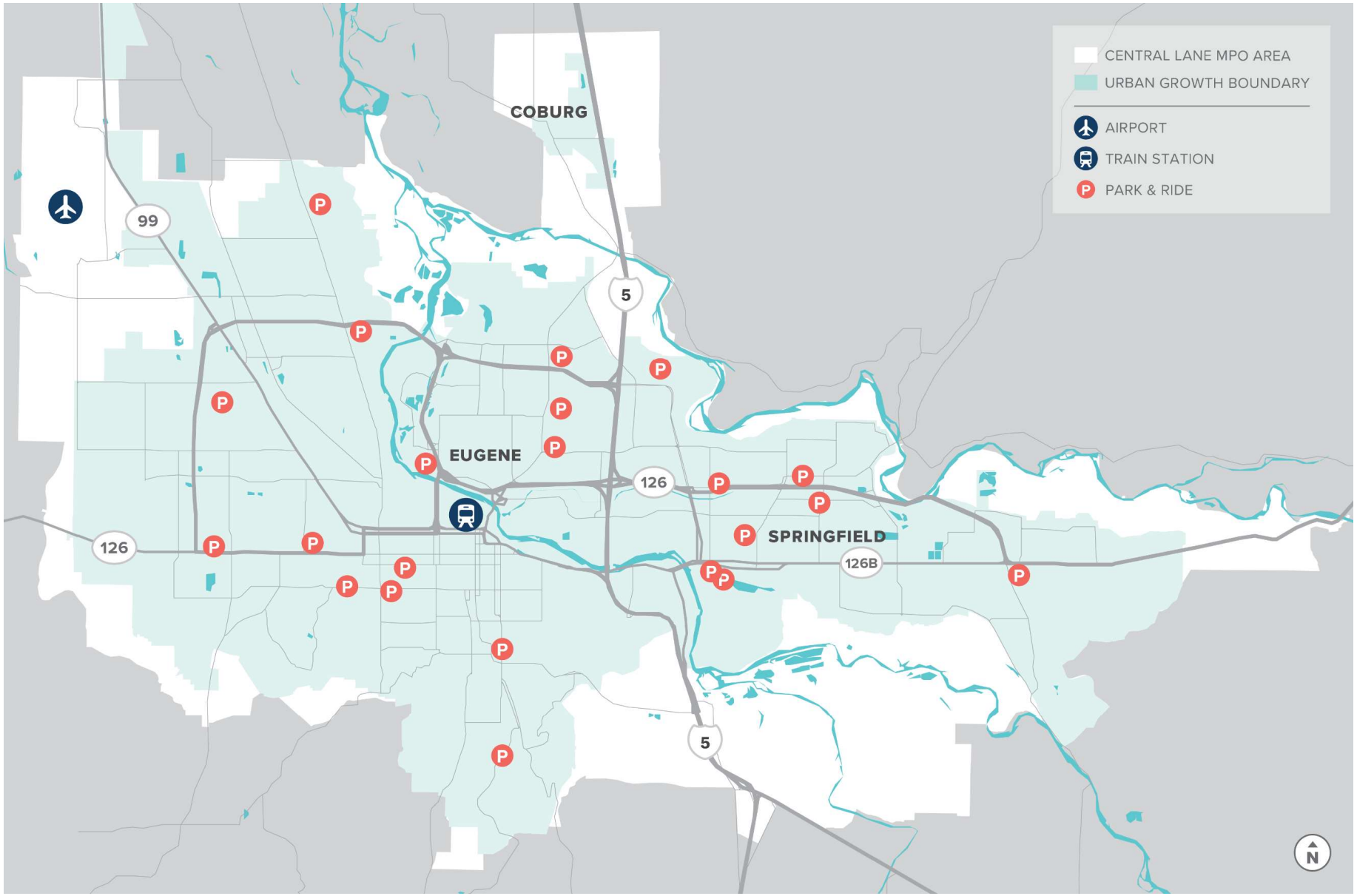
[11] Amtrak FY 19 Year End Ridership.

[12] Amtrak FY 20 Year End Ridership

[13] https://www.greyhound.com/en/about

[14] Lane Transit District, Park & Ride Locations.

FIGURE 15. REGIONAL PASSENGER INTERMODAL FACILITIES



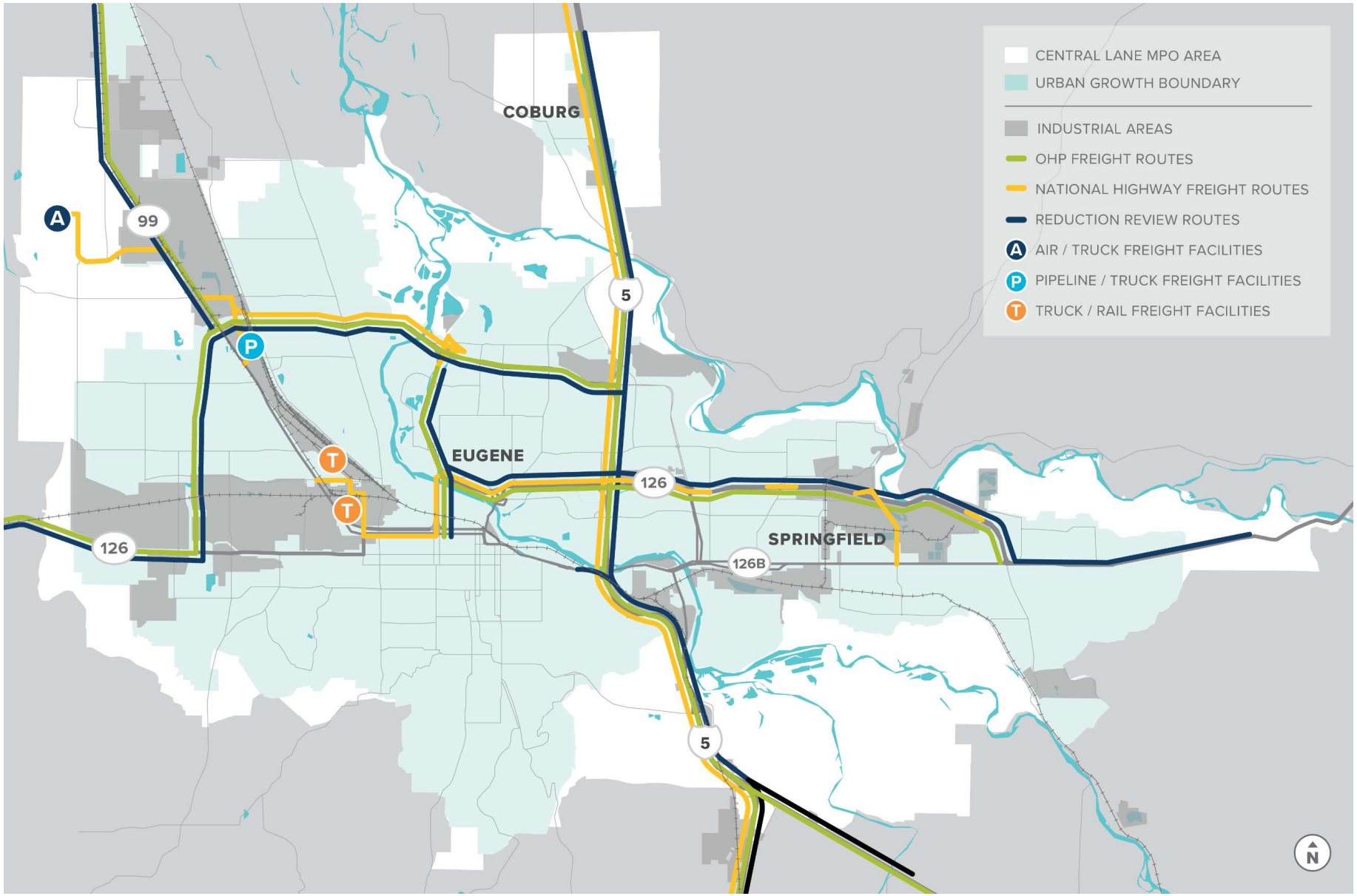
REGIONAL FREIGHT NETWORK

The regional freight network shown in Figure 16 identifies the transportation networks and facilities that serve the region and the state's freight mobility needs. It addresses the needs for freight through-traffic as well as regional freight movements and provides access to employment, industrial areas, and commercial districts. It includes freight routes designated in the *Oregon Highway Plan* (OHP) and federally designated freight routes.

The transport and distribution of freight occurs via the regional freight network, which is a combination of interconnected publicly- and privately- owned networks and terminal facilities. Rail, pipeline, air, and freight routes connect the region to markets and suppliers beyond local boundaries. Inside the region, freight routes and other arterial streets distribute freight moved by truck to air and pipeline terminal facilities, rail yards, industrial areas, and commercial centers.

The freight network is a critical element to enable goods movement and a healthy economy. The freight network allows the transport of goods into, out of, and within the region. The transport of freight allows companies to acquire the raw materials or products necessary to conduct their business, which may include the manufacture of goods or sales of product to consumers. Similarly, the freight network allows companies within the region to transport their finished goods or products to the end consumer and/or to the next step of the supply chain. Maintaining both the inbound and outbound flow of goods is critical for the prosperity of business within the region and providing residents with the goods they need.

FIGURE 16. REGIONAL FREIGHT NETWORK



CHAPTER 2: GOALS, OBJECTIVES AND PERFORMANCE MEASURES

This chapter presents the CLMPO 2045 RTP goals, objectives, performance measures, and performance targets that collectively will guide transportation planning and investment decisions in the region through 2045.

GOALS, OBJECTIVES, AND PERFORMANCE MEASURES

The CLMPO RTP employs a performance-based planning and programming approach, focusing on outcomes-based goals to guide the region's transportation planning and decision-making. The outcomes-based approach allows for better prioritization and tracking of system performance to help track progress towards realizing a multimodal transportation system that meets the region's needs and achieves its goals.

Specific measurable objectives and quantifiable performance measures to track the region's progress are established in this chapter as a framework to work towards achieving the RTP goals.

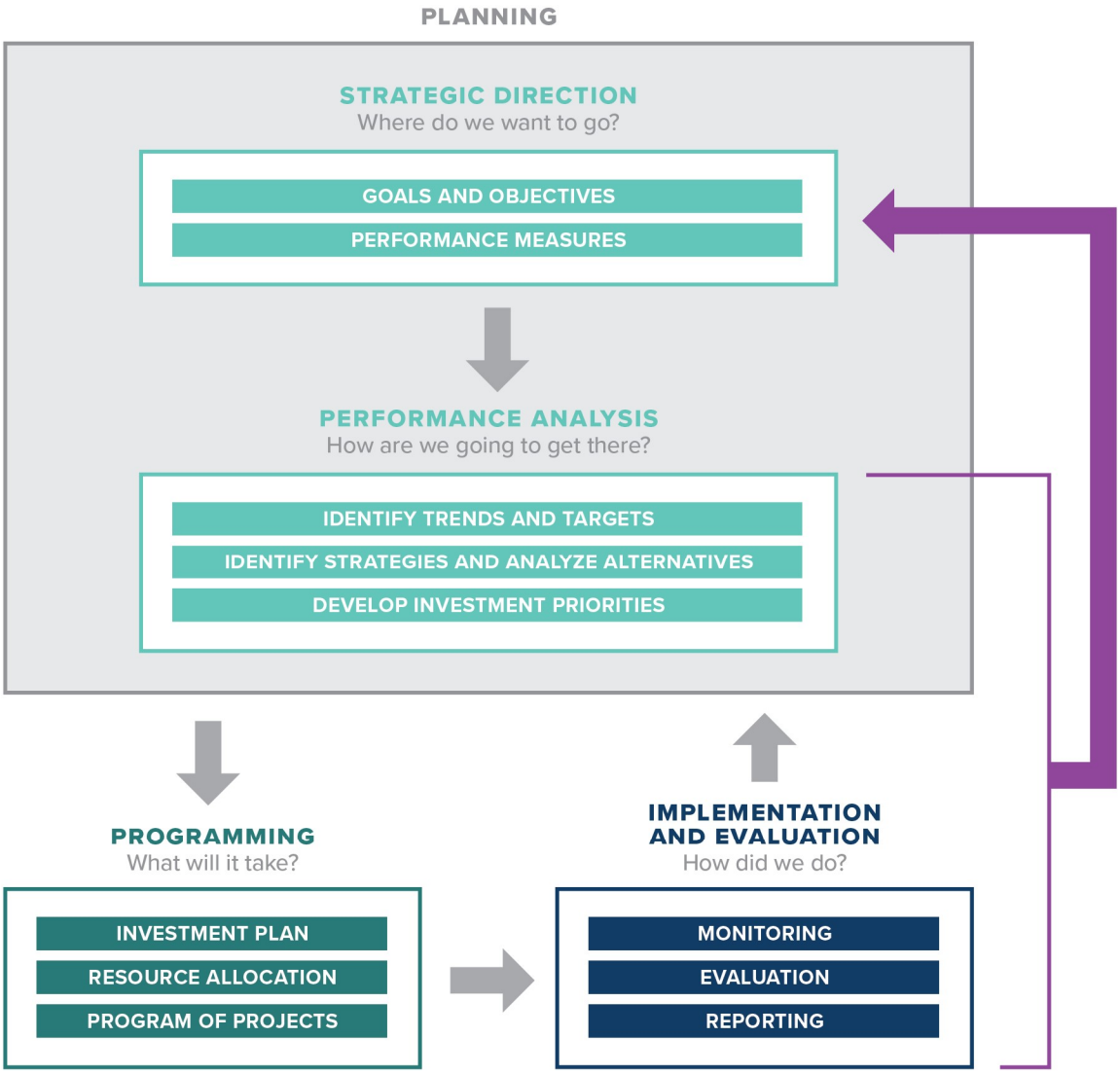
For the purpose of this Plan, the following definitions apply:

- **Goal** – States a desired outcome toward which actions are focused to make progress toward a long-term vision.
- **Objective** – An attainable target that the community attempts to reach in striving to meet a goal. An objective may also be considered as an intermediate point that will help fulfill the overall goal.
- **Performance Measure** – Predetermined indicators monitored during the life of the RTP as a method of evaluating the plan*'s* effectiveness. To provide numerical targets needed to assess plan progression, *benchmarks* are established for each performance measure at five-year intervals.

Objectives are focused and measurable outcomes of the goals, while performance measures track progress towards achieving the objectives. The performance measures support the outcomes-based framework reflected in the plan's goals and objectives and serve as the dynamic link between RTP goals and Plan implementation. These performance measures draw from federal and state legislation and regional policies. They are aspirational and support the region's performance-based planning and programming framework shown in Figure 17.

Together, the goals, objectives and performance measures provided direction for developing the regional projects recommended in Chapter 5. Chapter 6 reports findings on how well the RTP performs across a broad array of measures relative to the plan's performance targets.

FIGURE 17. RTP PERFORMANCE-BASED PLANNING AND PROGRAMMING FRAMEWORK

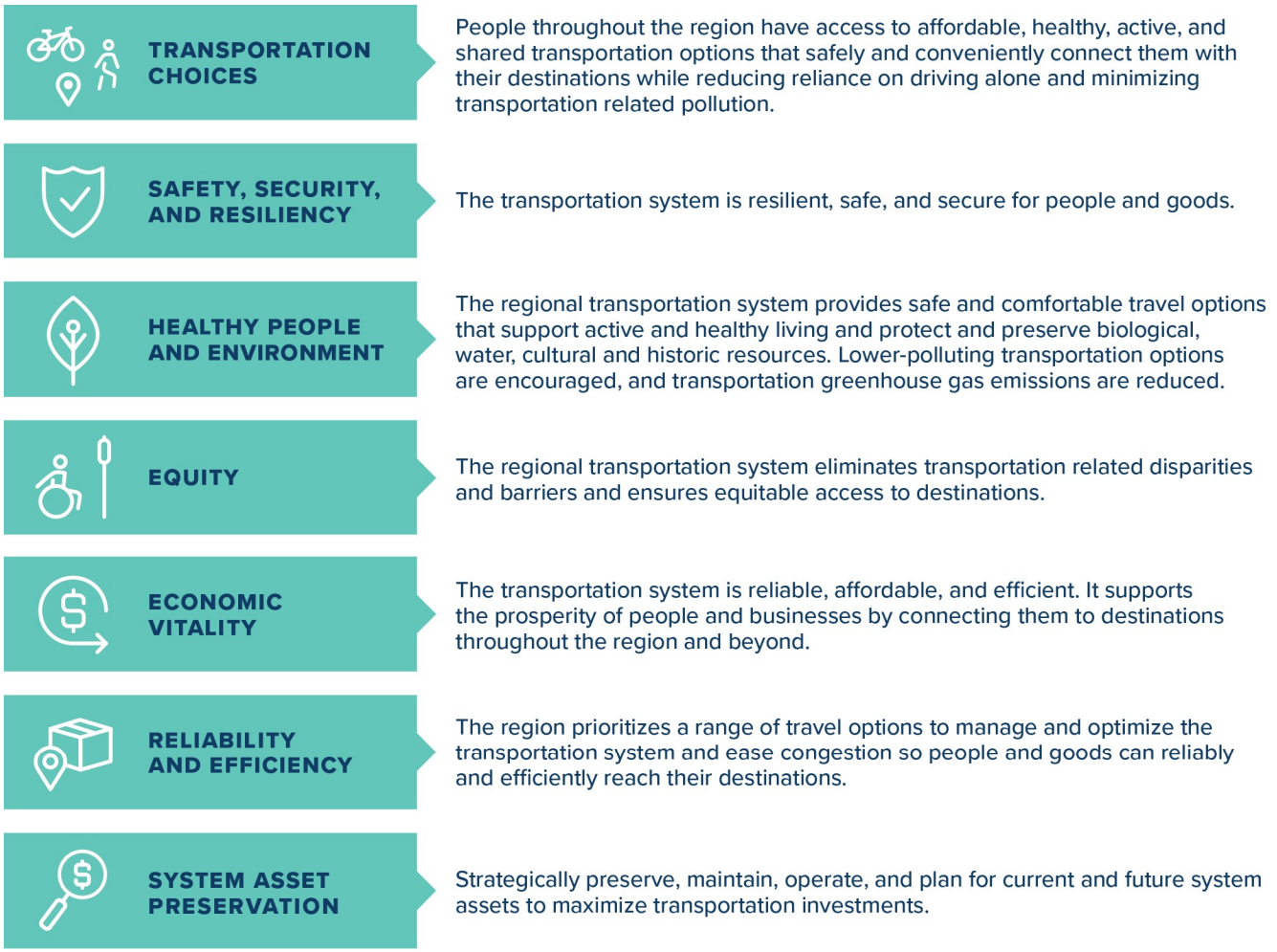


Source: FHWA Performance Based Planning and Programming Guidebook, September 2013.

RTP GOALS

Regional goals establish the organizing framework and direction for transportation planning in the CLMPO area. They reflect MPC direction, stakeholder feedback, and public input, and are intended to be consistent with and support local and state plans. The RTP goals are summarized in Figure 18 and are each considered of equal importance so are not presented in order of importance; similarly, they are not intended to be weighted or prioritized in any context throughout the RTP. The RTP goals and objectives provide a foundation for transportation policy, plans, projects, and programs completed within the region. As local and regional circulation patterns are intertwined, continual coordination between local jurisdictions and the region is critical to achieving these regional goals. Look for each goal's icon from Figure 18 throughout this document to find where it is referenced throughout the RTP.

FIGURE 18. RTP GOALS



Note: Goals are not presented in order of importance, nor are they intended to be weighted or prioritized in any context throughout the RTP.

RTP OBJECTIVES

Objectives for each of the seven RTP goals are further reflection of stakeholder feedback and public input and are intended to be consistent with and support local and state plans. In some cases, specific objectives may support more than one goal. For example, "Complete gaps in regional bicycle and pedestrian networks, including paths" is listed under Goal 1: Transportation Choices, Goal 3: Healthy People and Environment, Goal 4: Equity, and Goal 6: Reliability and Efficiency. In addition, performance measures and the connection to federal planning factors (as detailed in Chapter 1) are provided for each goal, with more details provided in the "Performance Measures" section later in this Chapter.

GOAL 1: TRANSPORTATION CHOICES

People throughout the region have access to affordable, healthy, active, and shared transportation options that safely and conveniently connect them with their destinations while reducing reliance on driving alone and minimizing transportation-related pollution.

OBJECTIVES

- Increase the percentage of trips made using active and low carbon transportation modes while reducing vehicle miles traveled within our region.
- Complete gaps in regional bicycle and pedestrian networks, including paths.
- Increase the number of households and areas of employment with access to current and planned frequent transit service, bicycle network, and walk network.
- Increase travel options that serve popular destinations.
- Eliminate fatal and serious injury crashes for all modes of travel.
- Improve public health by providing safe, comfortable, and convenient transportation options that support active living and physical activity for all ages and abilities to meet daily needs and access services.
- Develop a multimodal transportation system that allows all to access employment, education, and services.
- Leverage technological advances, including intelligent transportation systems solutions, to increase efficiency of travel across all modes for all travelers, but particularly for vulnerable populations.
- Increase access to outreach, education, incentives, and other tools that increase shared trips and use of travel options.
- Support regional travel and tourism with a multimodal transportation system, including passenger rail and intercommunity transit access, that provides visitors and tourists with travel options to access regional destinations.
- Support state efforts to transition Oregon to cleaner, low carbon fuels and increase the adoption of more fuel-efficient vehicles and alternative fuel vehicles, including electric and hydrogen vehicles.

PERFORMANCE MEASURES

- Miles traveled
- Mode share
- System completeness
- Access to transit

CONNECTION TO FEDERAL PLANNING FACTORS

#4. Accessibility and Mobility

#6. Connectivity

#9. Resilience

GOAL 2. SAFETY, SECURITY AND RESILIENCY

The transportation system is resilient, safe, and secure for people and goods.

OBJECTIVES	PERFORMANCE MEASURES
• Eliminate fatal and serious injury crashes for all modes of travel. • Reduce the transportation system's vulnerability to natural disasters and climate change. • Reduce the transportation system's vulnerability to crime and terrorism. • Increase the security of transportation system data associated with existing and emerging technologies. • Eliminate barriers that people of color, low-income people, youth, older adults, people with disabilities and other historically excluded communities face meeting their travel needs. • Improve public health by providing safe, comfortable, and convenient transportation options that support active living and physical activity for all ages and abilities to meet daily needs and access services. • Strive to reduce vehicle-related greenhouse gas emissions and congestion through more sustainable street, bike, pedestrian, transit, and rail network design, location, and management. • Reduce the impact of roadway incidents on the regional arterial roadway network and frequent transit routes. • Develop a transportation system that is adaptable and flexible to changing needs and conditions.	• Safety **CONNECTION TO FEDERAL PLANNING FACTORS** #2. Safety #3. Security #9. Resilience

GOAL 3. HEALTHY PEOPLE AND ENVIRONMENT

The regional transportation system provides safe and comfortable travel options that support active and healthy living and protect and preserve biological, water, cultural, and historic resources. Lower-polluting transportation options are encouraged, and transportation greenhouse gas emissions are reduced.

OBJECTIVES

- Increase the percentage of trips made using active and low carbon transportation modes while reducing vehicle miles traveled within our region.
- Complete gaps in regional bicycle and pedestrian networks, including paths.
- Increase the number of households and areas of employment with access to current and planned frequent transit service, bicycle network, and walk network.
- Increase travel options that serve popular destinations.
- Eliminate barriers that people of color, low-income people, youth, older adults, people with disabilities and other historically excluded communities face meeting their travel needs.
- Protect natural, cultural, and developed resources from the negative impacts of transportation.
- Reduce transportation-related air and water pollutants.
- Improve public health by providing safe, comfortable, and convenient transportation options that support active living and physical activity for all ages and abilities to meet daily needs and access services.
- Strive to reduce vehicle-related greenhouse gas emissions and congestion through more sustainable street, bike, pedestrian, transit, and rail network design, location, and management.
- Develop a multimodal transportation system that allows all to access employment, education, and services.
- Increase access to outreach, education, incentives, and other tools that increase shared trips and use of travel options.
- Reduce percentage of income required to meet household transportation costs.
- Support state efforts to transition Oregon to cleaner, low carbon fuels and increase the adoption of more fuel-efficient vehicles and alternative fuel vehicles, including electric and hydrogen vehicles.

PERFORMANCE MEASURES

- Miles Traveled
- Mode Share
- System Completeness

CONNECTION TO FEDERAL PLANNING FACTORS

#4. Accessibility and Mobility

#5. Environment, energy, conservation, quality of life

#6. Connectivity

#9. Resilience

GOAL 4. EQUITY

The regional transportation system eliminates transportation-related disparities and barriers and ensures equitable access to destinations.

OBJECTIVES

- Increase the percentage of trips made using active and low carbon transportation modes while reducing vehicle miles traveled within our region.
- Complete gaps in regional bicycle and pedestrian networks, including paths.
- Increase the number of households and areas of employment with access to current and planned frequent transit service, bicycle network, and walk network.
- Increase travel options that serve popular destinations.
- Eliminate fatal and serious injury crashes for all modes of travel.
- Eliminate barriers that people of color, low-income people, youth, older adults, people with disabilities and other historically excluded communities face meeting their travel needs.
- Develop a multimodal transportation system that allows all to access employment, education, and services.
- Support transportation investments that address the transportation needs of historically excluded communities and provide increased mobility options and access.
- Leverage technological advances, including intelligent transportation systems solutions, to increase efficiency of travel across all modes for all travelers, but particularly for vulnerable populations.
- Increase access to outreach, education, incentives, and other tools that increase shared trips and use of travel options.
- Reduce the percentage of income required to meet household transportation costs.
- Increase the transportation options to regional job centers.

PERFORMANCE MEASURES

- System Completeness
- Access to Jobs
- Access to Services
- Access to Transit

CONNECTION TO FEDERAL PLANNING FACTORS

#4. Accessibility and Mobility

#6. Connectivity

GOAL 5. ECONOMIC VITALITY

The transportation system is reliable, affordable, and efficient. It supports the prosperity of people and businesses by connecting them to destinations throughout the region and beyond.

OBJECTIVES	PERFORMANCE MEASURES
• Increase the number of households and areas of employment with access to current and planned frequent transit service, bicycle network, and walk network. • Increase travel options that serve popular destinations. • Strive to reduce vehicle-related greenhouse gas emissions and congestion through more sustainable street, bike, pedestrian, transit, and rail network design, location, and management. • Develop a multimodal transportation system that allows all to access employment, education, and services. • Reduce percentage of income required to meet household transportation costs. • Increase access to industry and freight intermodal facilities to facilitate efficient goods movement. • Build an integrated and connected system of regional arterial roadways, freight routes and intermodal facilities, transit, bicycling and walking facilities. • Support regional travel and tourism with a multimodal transportation system, including passenger rail and intercommunity transit access, that provides visitors and tourists with travel options to access regional destinations.	• Miles Traveled • Travel Time • Vehicle Hours of Delay • Congestion • Access to Jobs **CONNECTION TO FEDERAL PLANNING FACTORS** #1. Economic Vitality #9. Resilience #10. Travel and tourism

GOAL 6. RELIABILITY AND EFFICIENCY

The region prioritizes a range of travel options to manage and optimize the transportation system and ease congestion so people and goods can reliably and efficiently reach their destinations.

OBJECTIVES

- Increase the percentage of trips made using active and low carbon transportation modes while reducing vehicle miles traveled within our region.
- Complete gaps in regional bicycle and pedestrian networks, including paths.
- Strive to reduce vehicle-related greenhouse gas emissions and congestion through more sustainable street, bike, pedestrian, transit, and rail network design, location, and management.
- Leverage technological advances, including intelligent transportation systems solutions, to increase efficiency of travel across all modes for all travelers, but particularly for vulnerable populations.
- Increase the number of people and businesses with easy access to travel information.
- Reduce the impact of roadway incidents on the regional arterial roadway network and frequent transit routes.
- Increase access to outreach, education, incentives, and other tools that increase shared trips and use of travel options.
- Develop new revenue sources to address current transportation system preservation, maintenance, and operational needs and prepare for future investments to meet increased travel demand.
- Increase access to industry and freight intermodal facilities to facilitate efficient goods movement.
- Build an integrated and connected system of regional arterial roadways, freight routes and intermodal facilities, transit, bicycling and walking facilities.

PERFORMANCE MEASURES

- Miles Traveled
- Travel Time
- Congested Miles of Travel

CONNECTION TO FEDERAL PLANNING FACTORS

#1. Economic Vitality

#7. Efficiency

#9. Reliability

#10. Travel and tourism

GOAL 7. SYSTEM ASSET PRESERVATION

Strategically preserve, maintain, operate, and plan for current and future system assets to maximize transportation investments.

OBJECTIVES

- Increase the percentage of trips made using active and low carbon transportation modes while reducing vehicle miles traveled within our region.
- Reduce the transportation system's vulnerability to natural disasters and climate change.
- Preserve and maintain transportation system assets to maximize their useful life and minimize project construction and maintenance costs.
- Develop a transportation system that is adaptable and flexible to changing needs and conditions.
- Develop new revenue sources to address current transportation system preservation, maintenance, and operational needs and prepare for future investments to meet increased travel demand.

PERFORMANCE MEASURES

- Travel Time
- Congested Miles of Travel
- Vehicle Hours of Delay
- Congestion

CONNECTION TO FEDERAL PLANNING FACTORS

#8. Preservation

#9. Resilience

PERFORMANCE MEASURES AND TARGETS

The RTP's performance measures are intended to track progress towards meeting regional goals such as environmental quality, economic vitality, and equity of access to essential services and destinations. These measures play important roles in understanding whether the transportation system is meeting the community's needs.

The performance measures support the region's transportation planning and decision-making process to monitor and project future system performance. These performance measures include both federal measures (Figure 20) and regional measures (Figure 21). Chapter 6 of the RTP reports on the comprehensive evaluation of Plan performance using the federal and regional performance measures.

There are several types of performance measures and targets described in this plan. Some performance measures are more regional in nature and are intended to be monitored and tracked over time towards a stated direction of performance. Other performance measures are specific to the transportation system and are used to predict the future as part of an evaluation process using forecasted data. They are often applied at a system, corridor, or project scale and provide a basis for evaluating alternatives and making decisions on future transportation investments.

Federal Performance Management

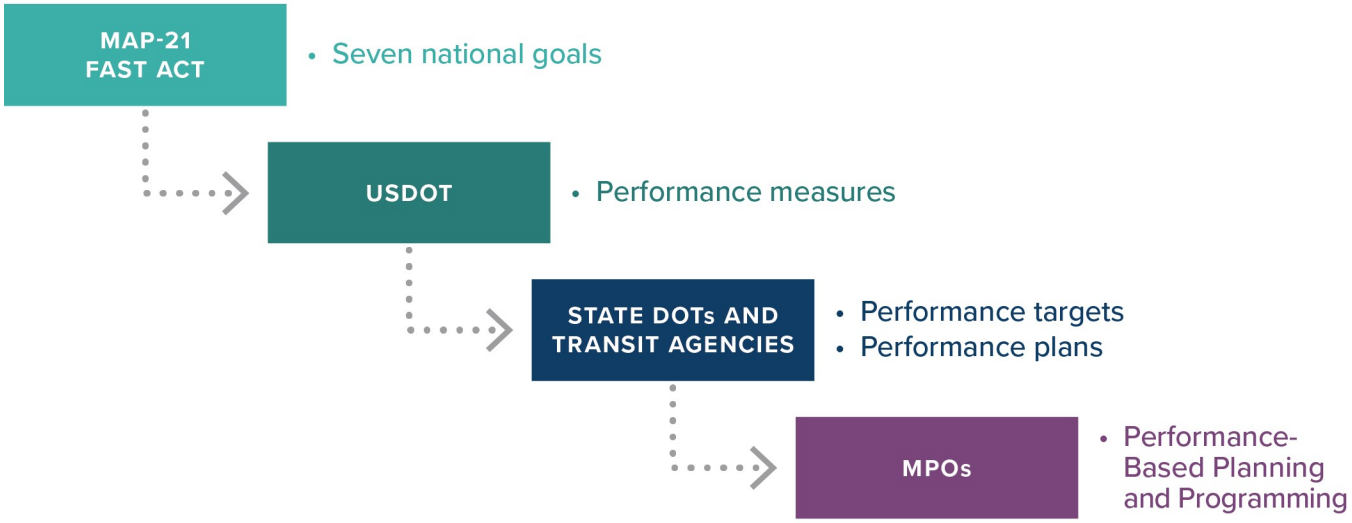
Performance measures are indicators of progress towards attaining a goal, objective, or target. Current federal legislation requires state departments of transportation (state DOTs), MPOs, and transit agencies to conduct performance-based planning and programming (PBPP) by setting data-driven performance targets for specific transportation performance measures and program investments that are expected to result in achievement of the targets (23 CFR Parts 450 and 771 and 49 CFR Part 613). The federal transportation performance measures, which were prescribed through federal rulemaking, address the seven national goal areas:

1. Improving Safety
2. Maintaining Infrastructure Condition
3. Reducing Traffic Congestion
4. System Reliability
5. Improving the Efficiency of the System and Freight Movement
6. Protecting the Environment
7. Reducing Delays in Project Delivery

Performance management is a strategic approach to connect decision-making and investment to help achieve performance goals, as shown in Figure 19.

FIGURE 19. FEDERAL PERFORMANCE MANAGEMENT FRAMEWORK

TO INCREASE ACCOUNTABILITY AND TRANSPARENCY:



The federal performance measures identified in Figure 20 are part of a larger requirement of the MPO. Following guidance from FHWA and the Federal Transit Administration (FTA), State DOTs are required to develop targets for each identified performance measure within one year of guidance being issued. In the subsequent 180 days, MPOs are either required to support the state's targets or develop their own regionally specific targets. This coordination between the MPOs and State DOTs in performance management and target setting is also supported by the Moving Ahead for Progress in the 21st Century (MAP-21) Act.[15] In the state of Oregon, ODOT and the state's MPOs established a "Coordination Process in Setting, Monitoring, and Reporting State Performance Measure Targets" which provides an overview of the required coordination and collaboration between ODOT and MPOs in setting and maintaining federal performance measures.

Consistent with this Coordination Process, CLMPO participated as ODOT estimated and established statewide performance targets for each federal performance measure. Upon ODOT's adoption of performance targets, the CLMPO MPC elected to support the state's adopted targets. CLMPO continues to coordinate with ODOT for monitoring and reporting requirements.

The federal performance measures and targets supported by the CLMPO are described in the following section.

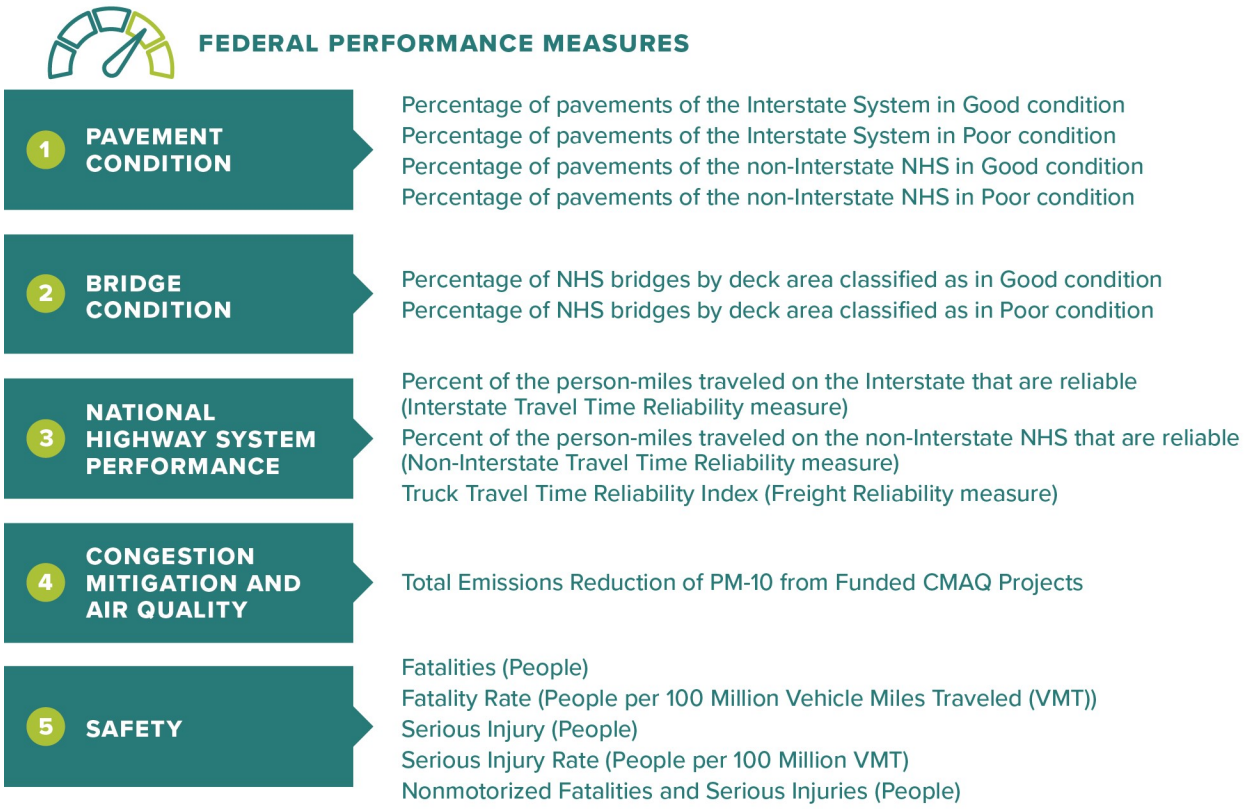
[15] In addition to MAP-21 requiring coordination between state DOT's and MPOs, state DOTs are also required to coordinate with local agencies and public transportation providers when setting performance targets.

Federal Performance Measure and Targets

The federal performance measures are categorized into three performance management groups:

- PM 1: Safety
- PM 2: Transportation Asset Management: Pavement and Bridge Condition
- PM 3: National Highway System Performance: System Reliability, Freight, Congestion, and Air Quality

FIGURE 20: FEDERAL PERFORMANCE MEASURES



FTA has established additional performance measures and reporting requirements for transit asset management (TAM) and transit safety. Performance metrics for TAM focus on maintenance of the regional transit system in a state of good repair. Transit assets to be monitored include:

- Non-revenue support equipment and maintenance vehicles
- Revenue vehicles (rolling stock)
- Rail infrastructure including tracks, and signals, and guidance systems; and
- Transit facilities including stations, parking structures, and administrative offices.

Lane Transit District was granted Tier II agency status[16] because it operates fewer than 100 vehicles in revenue service in any one mode during peak regular service. Lane Transit District participates in a Group TAM Plan with ODOT. The Lane Transit District Board adopted this Plan in December 2018. ODOT is tracking performance targets on an annual basis for Tier II transit agencies. These targets are posted annually on ODOT's Transit Asset Management site.[17]

Table 2 lists the specific Performance Measures and Targets currently adopted in the Oregon Tier II Providers Group TAM Plan.

TABLE 2. OREGON TIER II GROUP TAM PLAN PERFORMANCE TARGETS

ASSET TYPE	2017	2018
EQUIPMENT - AUTOMOBILES	40%	40%
ROLLING STOCK - OVER THE ROAD BUS	20%	20%
ROLLING STOCK - BUS	40%	40%
ROLLING STOCK - CUTAWAY	40%	40%
ROLLING STOCK - VAN	40%	40%
ROLLING STOCK - MINIVAN	40%	40%
ROLLING STOCK - SUV	40%	40%
ROLLING STOCK - AUTOMOBILE	40%	40%
FACILITIES - PASSENGER / PARKING FACILITIES	10%	10%
FACILITIES - ADMINISTRATIVE / MAINTENANCE FACILITIES	10%	10%

Additionally, On July 19, 2018, the FTA published the *Public Transportation Agency Safety Plan* (PTASP) Final Rule (49 CFR §673.15) regulating how Chapter 53 grantees would have to implement federally mandated safety standards. The rule's effective date was July 19, 2019, and the compliance date was July 20, 2020. Four performance measures must be included:

- Fatalities[18]

[16] Transit agencies are designated as Tier I or Tier II based on vehicles operated in maximum service. Tiers determine which type of TAM plan to develop and which TAM plan elements are required.

[17] https://www.oregon.gov/ODOT/RPTD/Pages/Transit-Asset-Management.aspx

[18] Total number of fatalities reported to the National Transit Database and rate per total vehicle revenue miles by mode.

- Injuries[19]
- Safety events[20]
- System reliability[21]

Lane Transit District adopted its PTASP in January 2020. The adopted safety measures and targets are shown in Table 3. Performance targets are based on the safety performance measures established under the National Public Transportation Safety Plan.

TABLE 3. SAFETY PERFORMANCE TARGETS

MODE OF TRANSIT SERVICE	FATALITIES	INJURIES	SAFETY EVENTS	SYSTEM RELIABILITY
FIXED ROUTE BUS	0	36	2.5/100k	7,241 miles
BUS RAPID TRANSIT	0	36	2.5/100k	7,241 miles

State and CLMPO Performance Targets

MAP-21 and the FAST Act required the U.S. Department of Transportation (USDOT) to establish transportation performance measures related to safety, pavement and bridge condition, system performance, and CMAQ funded projects (Figure 20). ODOT set performance targets for these measures and Central Lane MPO has acted by supporting the state targets. MPOs are required to incorporate performance measures and targets into their RTPs and Metropolitan Transportation Improvement Plans.

Table 4 shows the State target for the pavement condition, bridge condition, National Highway System Performance, and CMAQ performance measures. The State has calculated a statewide baseline for each measure and has also provided the baseline for each MPO as reflected in Table 3.

[19] Total number of injuries reported to the National Transit Database and rate per total vehicle revenue miles by mode.

[20] Total number of safety events (reportable derailments, collisions, fires, and evacuations) reported to the National Transit Database and rate per total vehicle revenue miles by mode.

[21] Mean distance between major mechanical failures by mode.

TABLE 4. FEDERAL PERFORMANCE MEASURES AND STATE TARGETS

PERFORMANCE MEASURE	TARGET
PAVEMENT CONDITIONS	
1. PERCENTAGE OF PAVEMENTS OF THE 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	50% (2 yr), 50% (4 yr)
4. PERCENTAGE OF PAVEMENTS OF THE NON-INTERSTATE NHS IN POOR CONDITION	10% (2 yr), 10% (4 yr)
BRIDGE CONDITION	
5. PERCENTAGE OF NHS BRIDGES BY DECK AREA CLASSIFIED AS IN GOOD CONDITION	10%
6. PERCENTAGE OF NHS BRIDGES BY DECK AREA CLASSIFIED AS IN POOR CONDITION	3%
NATIONAL HIGHWAY SYSTEM PERFORMANCE	
7. PERCENT OF THE PERSON-MILES TRAVELED ON THE INTERSTATE THAT ARE RELIABLE (INTERSTATE TRAVEL TIME RELIABILITY)	78%
8. PERCENT OF THE PERSON-MILES TRAVELED ON THE NON-INTERSTATE NHS THAT ARE RELIABLE (NON-INTERSTATE TRAVEL TIME RELIABILITY)	78%
FREIGHT MOVEMENT ON INTERSTATE SYSTEM	
9. TRUCK TRAVEL TIME RELIABILITY (TTTR) INDEX (FREIGHT RELIABILITY)	1.45
CONGESTION MITIGATION AND AIR QUALITY ON ROAD MOBILE SOURCE EMISSIONS	
10. TOTAL EMISSIONS REDUCTION OF PM-10 FROM FUNDED CMAQ PROJECTS	PM-10 363 (2 yr kg/day), PM-10 726.4 (4 yr kg/day)

** The mid-sized and small MPOs all have between 0 and 10 percent in good condition.*

*** Calculated as sum of emissions reductions from all projects funded with CMAQ dollars from 2014 to 2017. Central Lane and Salem-Keizer MPO did not receive CMAQ funding during this period and, therefore, were not included but will be moving forward. Four-year target values reflect estimated emissions benefits for projects that are currently programmed in the STIP for 2018-2022. Two-year target values are set as one-half of the four-year target.*

Table 5 lists the safety targets adopted by the State in the Oregon Transportation Safety Action Plan. The Plan adopted annual targets based on a five-year rolling average in order to even out the data over a period of time.

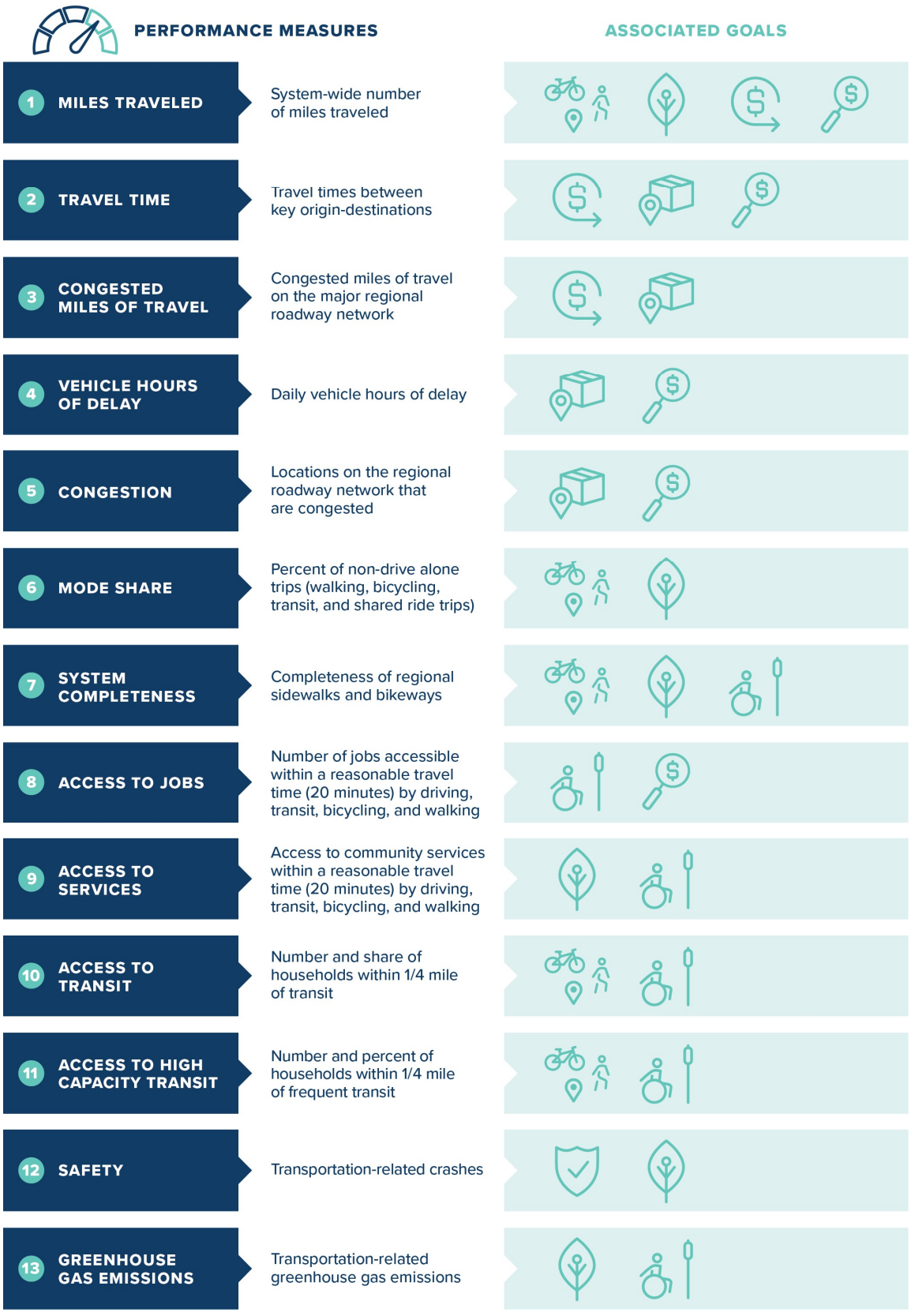
TABLE 5. STATE PERFORMANCE TARGETS - SAFETY

BASE PERIOD (YEARS)	FATALITIES (PEOPLE)	FATALITY RATE (PEOPLE PER 100 MILLION VMT)	SERIOUS INJURY (PEOPLE)	SERIOUS INJURY RATE (PEOPLE PER 100 MILLION VMT)	NONMOTORIZED FATALITIES AND SERIOUS INJURIES (PEOPLE)
2021 BASELINE (2014-2018 DATA)	448	1.48	1,739	5.03	257
2022 TARGET (2015-2019 DATA)	444	1.46	1,722	4.98	254

Regional Performance Measures

In addition to the performance targets the MPO needs to monitor and report on for federal compliance, several performance measures specific to the region were identified for this RTP. Figure 21 defines the regional performance measures and their associated RTP goals. Chapter 6 of the RTP will report the evaluation of these (and federal) performance measures.

FIGURE 21. HOW THE RTP PERFORMANCE MEASURES REPRESENT RTP GOALS



CONGESTION MANAGEMENT PROCESS

The Congestion Management Process (CMP) lays out the process used by CLMPO to manage congestion (Appendix B). Congestion management is the application of strategies to improve transportation system performance and reliability by reducing the adverse impacts of vehicle congestion on the movement of people and goods. A CMP is a systemic and regionally accepted approach for managing congestion. It provides accurate, up-to-date information on transportation system performance and assesses alternative strategies that meet state and local needs. The CMP is reflective of regional congestion issues as well as the CLMPO area's regional goals and objectives.

The FHWA requires all MPOs that have urban areas with a population of over 200,000, designated as Transportation Management Areas (TMA), to have a CMP.

According to Code of Federal Regulation (CFR), 23CFR450.320(a) and (b), TMAs shall cooperatively address congestion management through a process that provides for a safe and effective integrated management and operation of the multimodal transportation system…through the use of travel demand reduction and operational management strategies.

OVERVIEW OF THE CLMPO CMP

Federal guidelines provide local MPOs with discretion in how the CMP is conducted so that the approach used by the CLMPO can better reflect the community goals and policies that influence the types of solutions and investment priorities for managing congestion.

The CMP reports on performance trends and regional strategies to address underperforming elements of the transportation system and includes a list of high-priority strategies, projects, and studies identified to address key areas.

The CMP is organized around the same eight actions that are described by the FHWA and illustrated in Figure 22. The diagram shows a progression of planning activities and the iterative nature of the ongoing MPO regional planning process. The CLMPO has the freedom to vary the level of effort for each of the action areas, depending on the available funding for data collection and the extent and depth of analysis that might be required to inform key strategy decisions.

FIGURE 22. CONGESTION MANAGEMENT PROCESS STEPS

Source: Congestion Management Process Guidebook, Figure 2, FHWA, April 2011.

HOW THE CMP FITS INTO THE REGIONAL PLANNING PROCESS

The CMP is a core part of the regional transportation planning process.

The goals and objectives of the RTP inform and update the CMP purpose and goals, which in turn govern the underlying performance measures and reporting tools. New CMP strategy outcomes could require subsequent focused transportation studies and special plans, such as a regional Transportation System Management and Operations (TSMO) Plan or Corridor Study to further evaluate and refine possible solutions and priorities. The RTP was done in close coordination with the regional ITS Plan update to better integrate the strategies, solutions, and implementation measures for each planning document. Finally, key recommendations of those special studies feed back into the implementation process and are considered during the monitoring action step.

The CMP must establish a least cost planning approach that is then used before implementing projects that significantly increase capacity. This approach utilizes lower cost alternative travel demand reduction strategies and operational management strategies that could mitigate problems prior to the implementation of more costly strategies, such as major capacity enhancing capital projects. If such strategies cannot improve existing conditions and adding capacity is warranted, "*the CMP must identify strategies to manage the single occupant vehicle (SOV) facility safely and effectively, along with other travel demand reduction and operational management strategies appropriate for the corridor*" (23CFR450.320(e)).

CLMPO strives to put a focus on TSMO strategies and increasing the number of transportation options to reduce the number of single-occupancy vehicles to reduce congestion instead of increasing capacity on roadway facilities. Roadway capacity improvements are a last resort in the strategy toolbox and should only be applied as needed. The MPO coordinates and partners with regional Transportation Options (TO) programs, which include SRTS, Individualized Marketing, and other programs that support walking, biking, transit, rideshare, and telecommuting.

Examples of CMP Toolkit Strategies include promoting a regional commuter benefit program, parking management, turning movement enhancements, ramp metering, incident management, transit signal priority, new and improved park and ride facilities, freight capacity investments, and grade-separated railroad crossings. Strategies consisting of large capital projects that are meant to increase roadway capacity are also included in the strategies list, but generally are a last resort as these require significantly more capital investment and do not produce the same long-term results as active transportation options. Some of the strategies can be applied at the regional scale, but most are applied to individual corridors based on the existing facility deficiencies.

A bus departs from the Santa Clara transit facility.

CHAPTER 3: REGIONAL ASSESSMENT

The regional transportation system plays an important role in the way residents and visitors live, work, and play. Decisions made in the regional planning process affect people's ability to move around safely using their mode of choice and are critical to the region's future. This Chapter describes population and employment growth trends, demographics, and travel trends for insights into how the system is currently used and how to manage and plan for the future.

KEY DESTINATIONS

The CLMPO region is defined, in part, by its major activity centers, or key destinations. These key destinations substantially influence travel patterns uniquely. It is important to understand the places that impact travel patterns so that transportation planning efforts can best serve the region's needs.

MAJOR ACTIVITY CENTERS

The Eugene-Springfield metropolitan area is the second largest population center in the state and is a regional and international destination for education, sports, medical services, and recreational activities.

Key destinations and attractions are shown in Figure 23, and include:

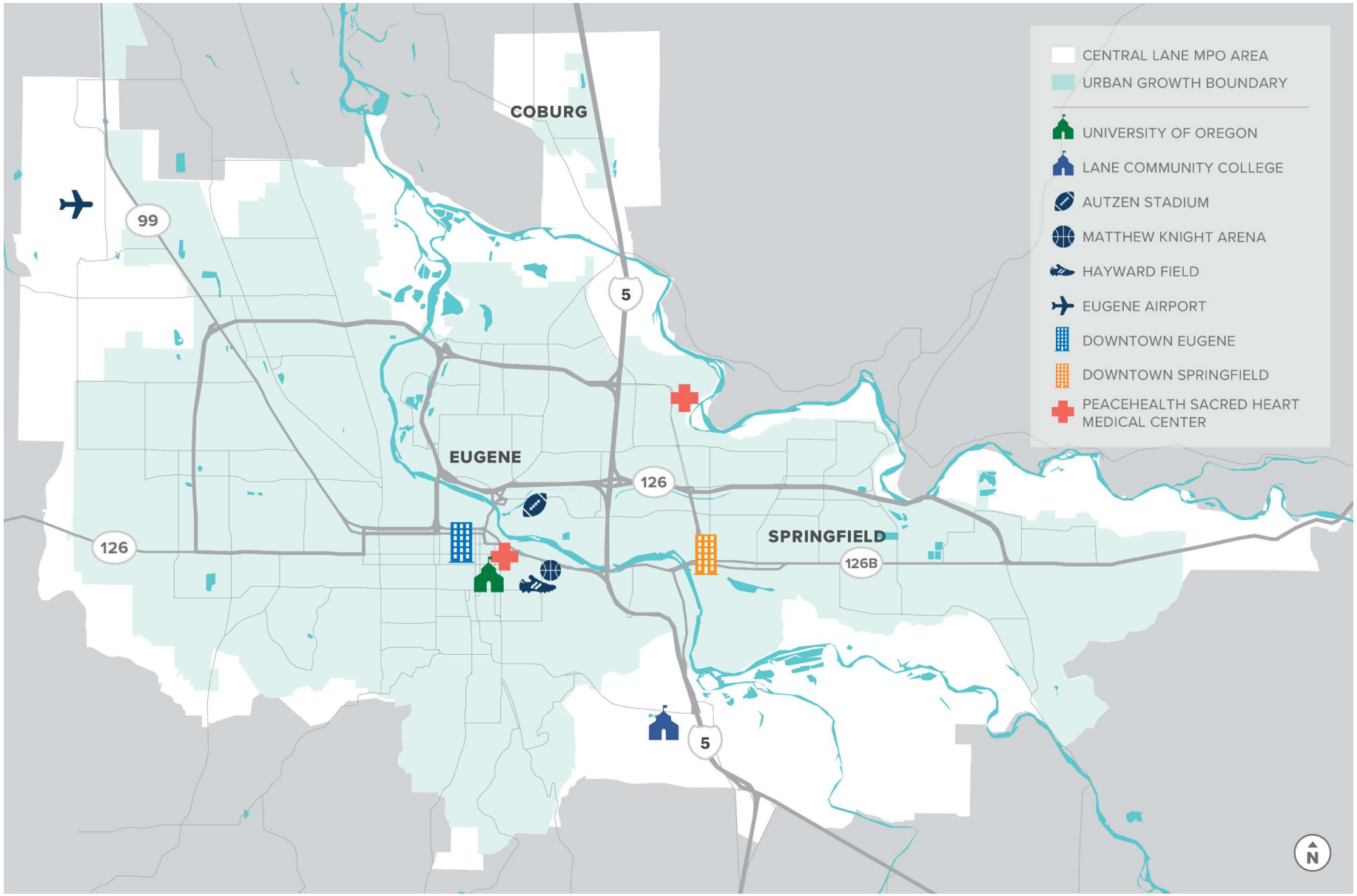
- **The University of Oregon.** The school's total 2020 enrollment of undergraduate and graduate students was 22,7601. Students come from all 50 states, the District of Columbia, two U.S. territories, and 99 countries. Of the current enrolled students, 52% are Oregon residents, 38% are from out of state, and 10% are international students.
- **Lane Community College.** The school serves more than 25,000 students per year through transfer, career technical, and personal enrichment programs.
- **University of Oregon Ducks Athletics.** Sporting events are a major draw; particularly to Hayward Field, Autzen Stadium, and the Matthew Knight Arena. The University of Oregon completed a renovation of Hayward Field in 2020 to a world-class track and field facility. It will host collegiate track and field meets, including upcoming NCAA Championships, as well as the 2022 World Athletics Championships.
- **The Eugene Airport.** EUG is a small-hub airport and the second largest airport in Oregon. It serves an area encompassing 91 zip codes with a population of approximately 730,3803. It provides nonstop service to Portland, Seattle, San Francisco, Los Angeles, Denver, Salt Lake City, Las Vegas, Chicago, Palm Springs, and Phoenix-Mesa. Connections to anywhere in the world are available through eight airlines operating at EUG, including Aha, Avelo, Alaska Airlines, Allegiant Air, American Airlines, Delta Air Lines, Southwest, and United Airlines.
- **Downtown Eugene.** Attractions include the Hult Center for the Performing Arts, the expanded 5th Street Public Market, Saturday Market and Lane County Farmers Market, art galleries, restaurants, local shops, The John G. Shedd Institute for the Arts, the McDonald Theatre, WOW Hall, Broadway Metro, Actors Cabaret of Eugene and Ballet Fantastique, Lane Community College Downtown Campus, and the Eugene Public Library. The City of Eugene is currently transforming its Downtown Riverfront property. The 16 acres of riverfront property, vacant and inaccessible for decades, will become a vibrant riverfront district and community destination. It will connect the City's downtown and campus areas along the Willamette River. Construction on

the Riverfront Park started in May 2020 and is expected to be completed by the end of 2021. Park improvements will include river overlooks, walking paths, and connectivity with the riverbank path system.

- **Downtown Springfield.** Attractions include a diverse array of local shops, galleries, and restaurants as well as the Richard E. Wildish Community Theater, Springfield Museum, and Springfield Public Library.
- **Peace Health Sacred Heart Medical Center Hospitals.** The two hospitals in the region at Riverbend in Springfield and at the University District in Eugene offer state-of-the art medical care.

Destinations beyond the MPO boundary in Lane County that bring visitors to the area are described in the following section.

FIGURE 23. CLMPO MAJOR ACTIVITY CENTERS



REGIONAL VISITORS AND TOURISM

Eugene, the University of Oregon, and South Willamette Valley Wine Country draw visitors to the region for leisure, sporting events, and business. Large events in the region that attract visitors include conferences in Eugene and sporting events at the University of Oregon. According to the Eugene Airport activity logs, the number of passengers served has grown rapidly at an average rate of 6% annually since 2010, surpassing 1.2 million in 2019.

Per the Oregon Travel Impacts County Estimates, Lane County (and primarily the Central Lane region) averaged more than three million overnight person trips per year from 2016-2019, with 0.5% growth year over year. The economic opportunities provided by these visitors supports more than 6% of the jobs in Lane County.

Popular recreational activities also draw visitors and residents to travel within the region:

- The Central Lane area is a hub for outdoor recreation offering access to the Oregon coast, Cascade Mountain region, hiking, biking, waterfalls, covered bridges, water recreation, and more.
- The Central Lane area is also a hub for the South Willamette Valley wine region which is often ranked as a top wine destination.

UNIVERSITY OF OREGON

The University of Oregon is a Tier 1 research institution with nine schools and colleges. The 295-acre campus continues to grow with the recent addition of the Phil and Penny Knight Campus for Accelerating Scientific Impact and the transformed Hayward Field. It is located east of downtown Eugene and is connected to the rest of the region through the City of Eugene's 13th Avenue Bikeway, the EmX bus rapid transit line, and Franklin Boulevard. Student enrollment has grown since the University opened its doors in 1876, as shown in Figure 24, though recent years have shown a decreased enrollment.

FIGURE 24. UNIVERSITY OF OREGON HISTORICAL ENROLLMENT

Source: UO Office of Institutional Research.

EMPLOYMENT GROWTH

Sustained economic development and growth indicates a healthy vibrant community due to employment stability and a larger tax base. However, while growth can contribute to economic health, impacts must be addressed, including ensuring that the multimodal transportation system and services are in place to meet the growth needs. The balance of economic viability and quality of life is a challenge but also a goal of this RTP.

The region's current employment of over 127,000 jobs has increased by 15,000 jobs over the past 15 years. Most of these jobs are in Eugene's urban core near the University of Oregon. A high density of jobs is also concentrated in north Springfield between I-5 and the McKenzie River, and along the north side of the Willamette River in Eugene, as seen in Figure 25.

Table 6 summarizes the current and projected employees working in each area of the region. Eugene currently holds approximately 70 percent of the region's employment. However, the rate of employment growth in Springfield (42 percent) is forecasted to slightly outpace Eugene's employment growth rate (38 percent) over the next 25 years. Even with increased growth in these areas, Eugene is forecasted to contain approximately 69 percent of employees in the region in 2045.

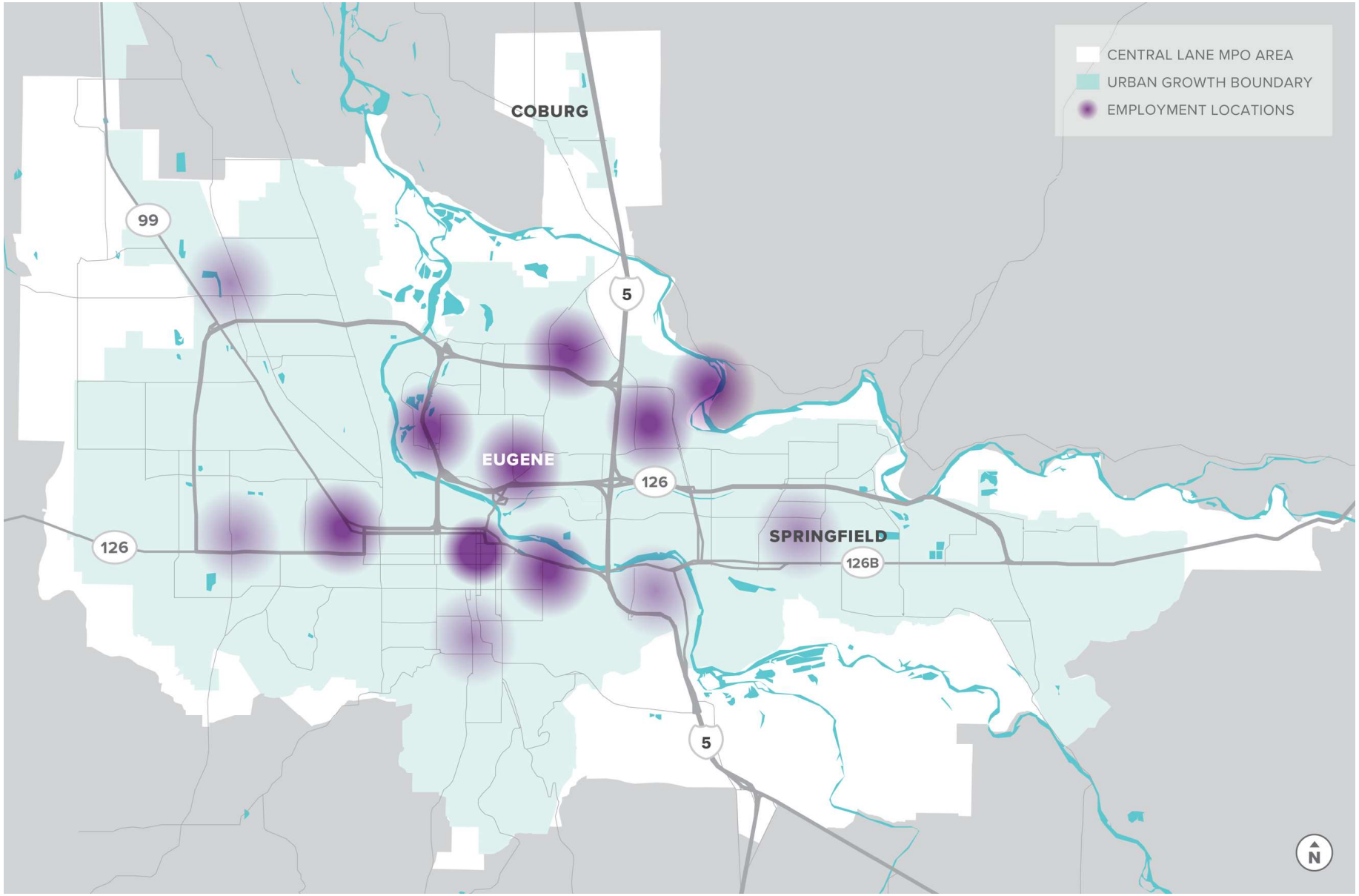
TABLE 6. CURRENT AND FORECASTED EMPLOYMENT (EMPLOYEES) IN THE REGION

JURISDICTION	2016 ESTIMATE	2045 FORECAST	PERCENT CHANGE
LANE COUNTY UNINCORPORATED*	5,032	6,716	33%
COBURG	1,533	2,121	38%
EUGENE	89,184	122,855	38%
SPRINGFIELD	32,039	45,571	42%
CLMPO	127,788	177,263	39%

Source: Oregon Employment Department 2018; LCOG 2020.

** Unincorporated Lane County area is located inside the MPO modeling area. The MPO modeling area is slightly larger than the MPO area, and includes the unincorporated Lane County area, Coburg, Eugene, and Springfield.*

FIGURE 25. WHERE PEOPLE WORK (HIGHEST DENSITIES)



REGIONAL POPULATION TRENDS

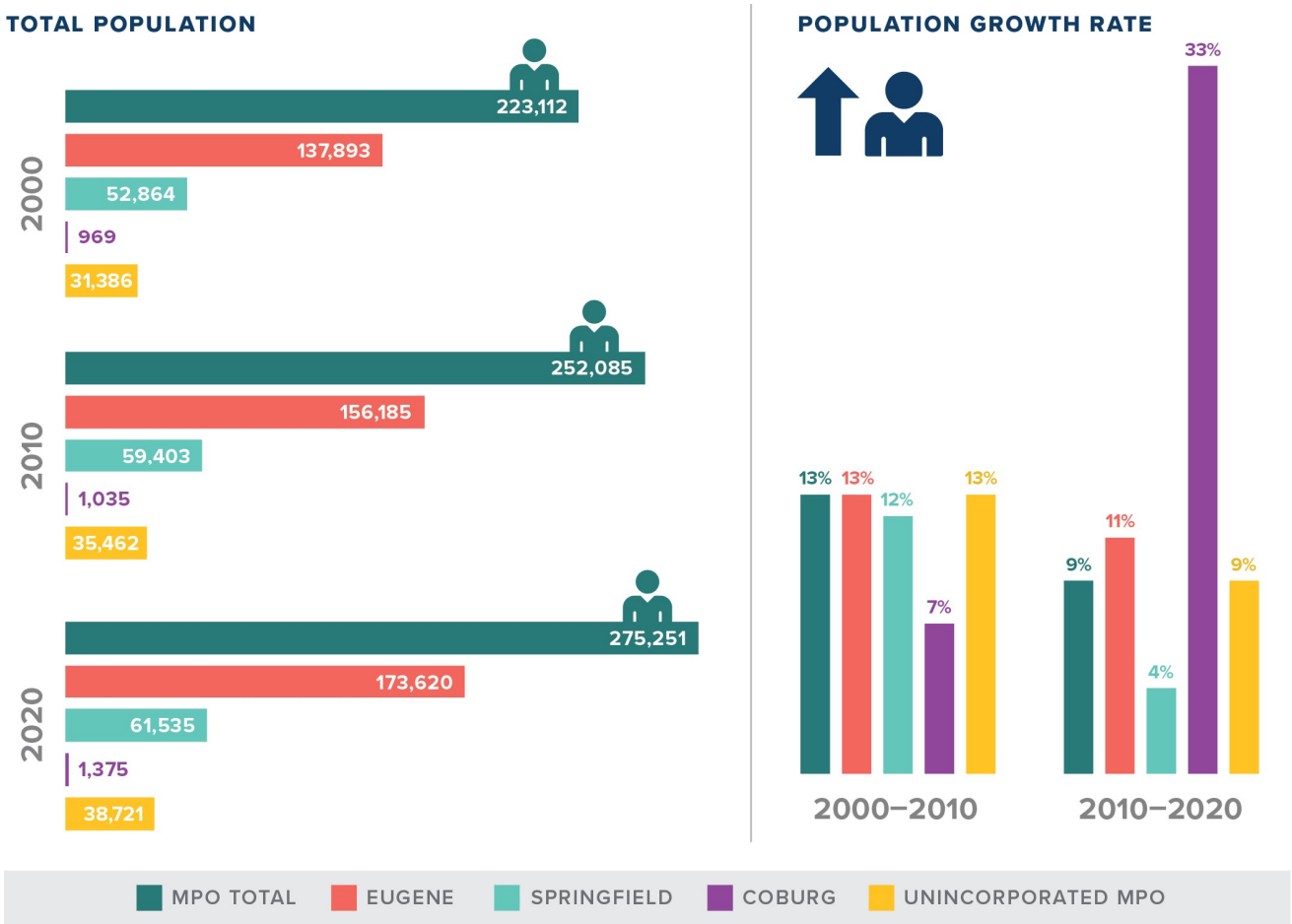
The following sections describe how the population is changing in the Central Lane region.

POPULATION GROWTH

The Central Lane region is growing, and that growth is expected to continue through 2045. Since 2000, Central Lane has grown about 1% each year, adding around 50,000 residents to the current population of 275,000. The growth has been happening throughout the region, with the cities of Eugene, Springfield, and Coburg each growing over 15 percent during this 25-year period. Figure 26 summarizes regional growth trends.

Of the Central Lane region's total population, 85 percent live in Eugene or Springfield, with 173,620 and 61,535 respectively. Figure 27 shows areas with higher concentration of population density by household. The densest areas are within Eugene's urban core and the University of Oregon campus. Other areas with high population densities include Springfield south of Main Street, households near the Shoppes at Gateway, and northern and western Eugene.

FIGURE 26. REGIONAL POPULATION GROWTH TRENDS FROM 2000-2020



CLMPO's 2016 population was 267,981. By 2045, the population is forecasted to grow to 320,684, a 20% increase. The population forecast for 2016 was used to develop regional land use estimates and relies on the Certified Population Estimates prepared by Portland State University's Population Research Center (PRC). PRC also released a Lane County population forecast in 2019 that provides 2019 baseline population and a 2045 population forecast for Lane County, Eugene, Springfield, and Coburg. The CLMPO boundary extends beyond the Coburg, Eugene, and Springfield city limits into unincorporated Lane County. The base population and population forecast are both adjusted to include the number of people inside the MPO area that are outside of city limits. Table 7 lists the current and forecasted populations for the CLMPO area.

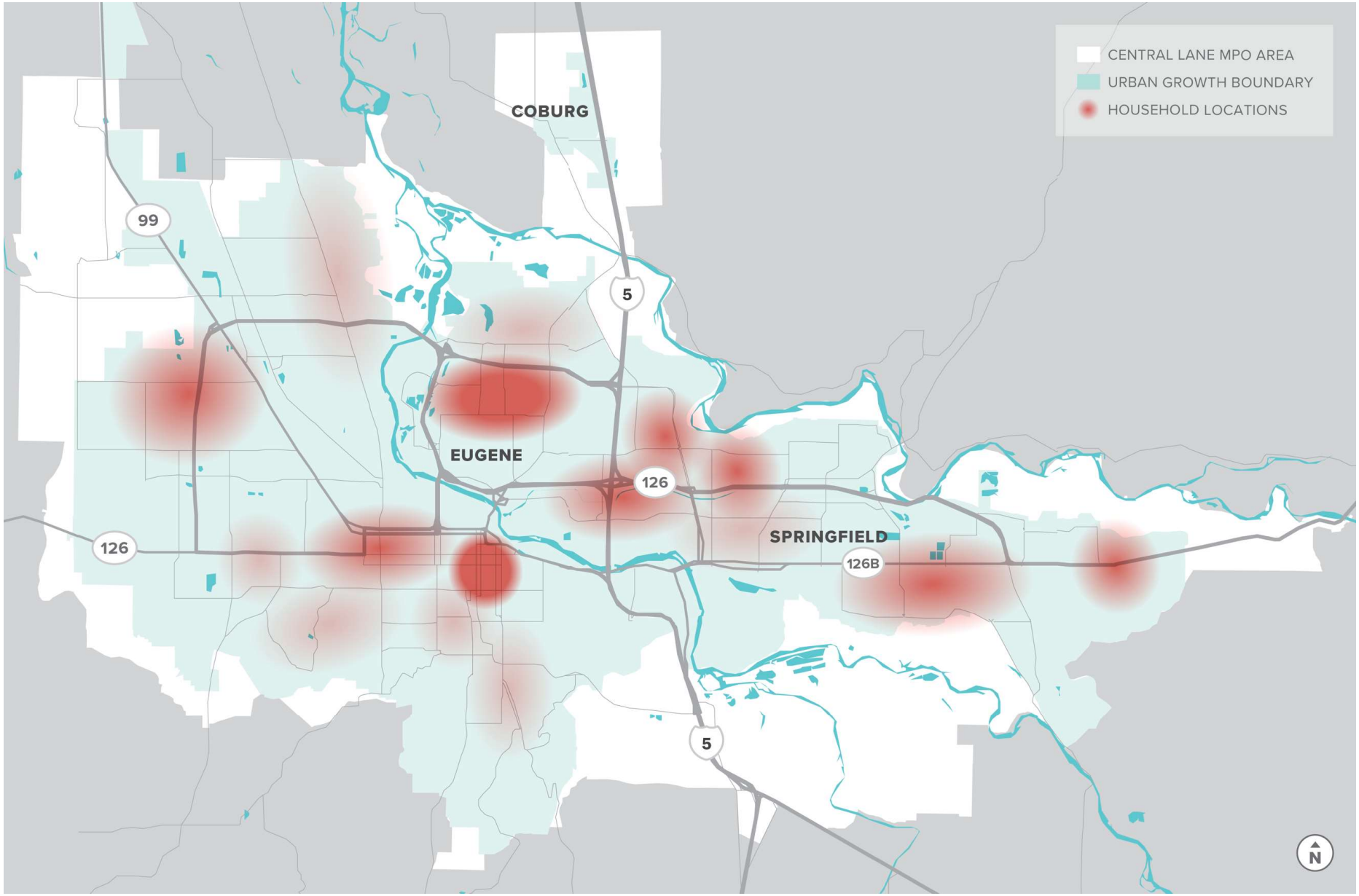
TABLE 7. CLMPO CURRENT AND FORECASTED POPULATION

JURISDICTION	2016 ESTIMATE	2045 FORECAST	PERCENT CHANGE
LANE COUNTY UNINCORPORATED*	8,121	8,705	7%
COBURG	1,104	1,694	53%
EUGENE	189,135	233,625	24%
SPRINGFIELD	69,621	76,660	10%
CLMPO TOTAL	267,981	320,684	20%

Source: Population Research Center, Portland State University, 2015, 2019, American Community Survey 5-Year Estimates; LCOG 2020.

** Unincorporated Lane County area is located inside the MPO modeling area. The MPO modeling area is slightly larger than the MPO area, and includes the unincorporated Lane County area, Coburg, Eugene, and Springfield.*

FIGURE 27. WHERE PEOPLE LIVE (HIGHEST DENSITIES)



REGIONAL DEMOGRAPHICS

Like the rest of the United States, the Central Lane region's demographic make-up is changing.[22] As the population of the region has grown in the past 10 years, several demographic trends have emerged. Key demographic trends highlighted in the section are based on the classifications of the Central Lane MPO's nondiscrimination policy and procedures, referred to as the Title VI Plan, which addresses integration of nondiscriminatory practices in transportation planning, public participation, and decision-making.[23] Title VI refers to requirements of the federal Civil Rights Act of 1964 and other legislation that direct the fair treatment and meaningful involvement of all people – regardless of race, color, national origin, disability, age, gender, or income status – in programs and activities receiving federal funding, including for transportation issues. One of the key purposes of Title VI is to ensure that public funds are not spent in a way that encourages, subsidizes, or results in discrimination. The intent is to eliminate barriers and conditions that prevent groups and persons from receiving access, participation, and benefits from federally assisted programs, services, and activities.

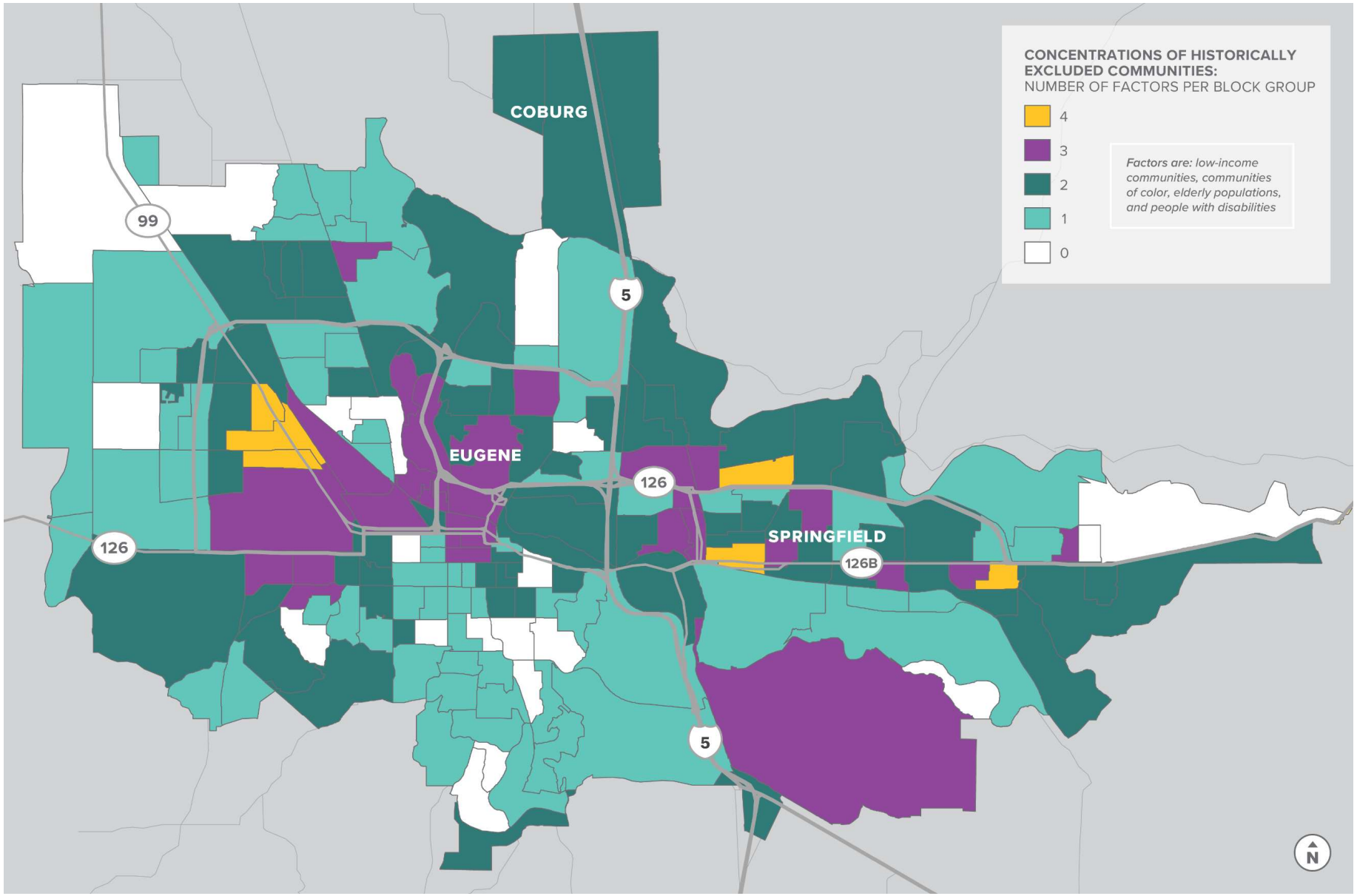
Notably, the remainder of this Plan will substitute the Title VI designation of "Communities of Concern" with the term "Historically Excluded Communities" to better illustrate the reasoning behind specific considerations for the Title VI-designated communities. This recognizes the fact that the benefits and burdens of transportation investments have not been fairly distributed, with the majority of burdens being placed on low-income communities, communities of color,[24] elderly populations, and people with disabilities.[25] The CLMPO is responsible for evaluating the impact of proposed transportation investments on population groups that may be traditionally underserved or underrepresented.

The following sections will describe the current geographic location and general growth patterns of Historically Excluded Communities. Understanding where Historically Excluded Communities are located and how the region's demographics are changing will help the CLMPO better target public outreach and transportation-related projects, programs, and activities.

Figure 28 geographically locates concentrations of Historically Excluded Communities throughout the region by Census block group. The figure indicates the block groups where concentrations of low-income communities, communities of color, elderly populations, and people with disabilities are higher than the region-wide average. Most Census block groups (164 of the 184) in the region include one or more Historically Excluded Community.

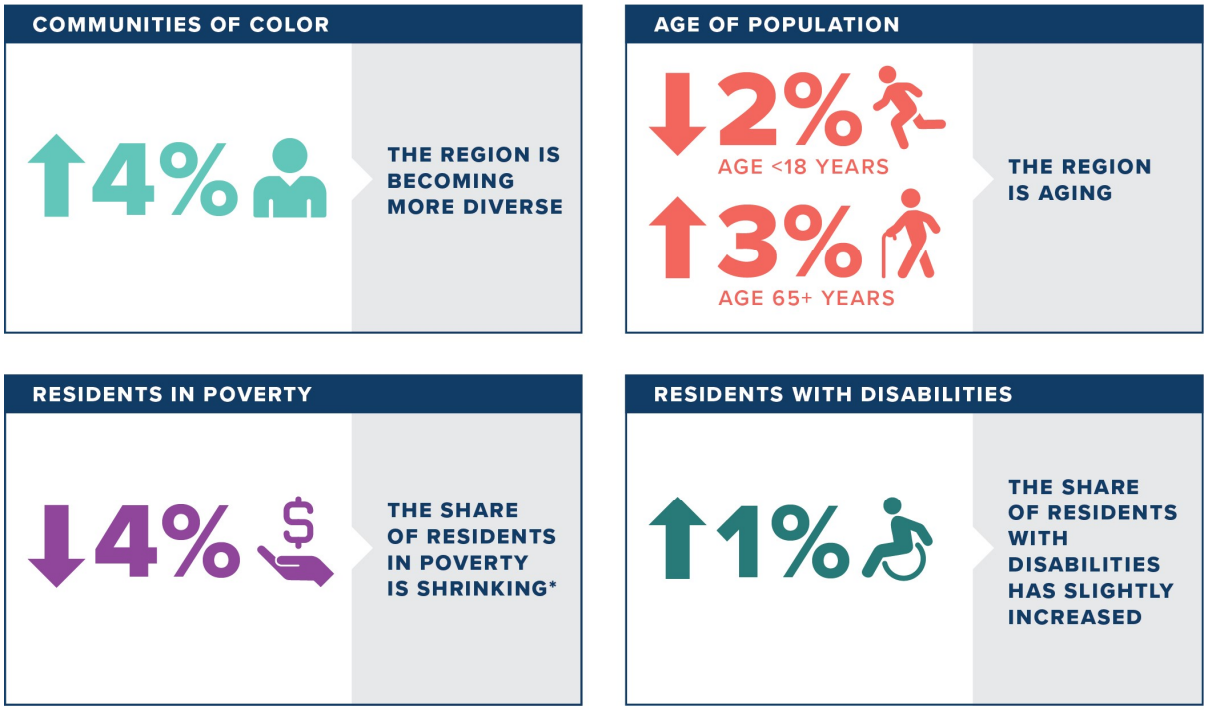
[22] Communities of Concern: 2015-2019 American Community Survey (5-year ACS)
[23] Central Lane MPO Title VI Plan, June 2015. The Title VI Plan includes additional information and resources regarding the region's Historically Excluded Communities.
[24] Communities of Color will be used to replace the Title VI designation of "Minority" throughout this Plan.
[25] People with Disabilities will be used to replace the Title VI designation of "Disabled" throughout this Plan.

FIGURE 28. CONCENTRATIONS OF HISTORICALLY EXCLUDED COMMUNITIES



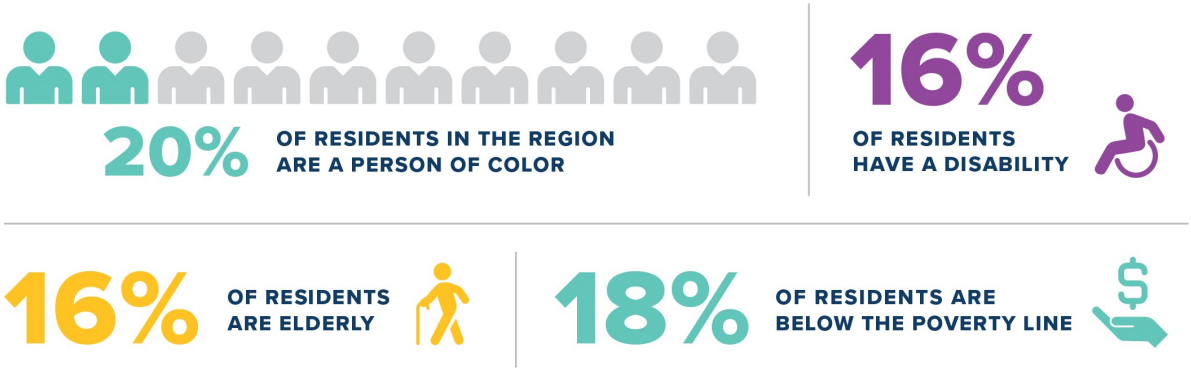
Generally, the population is getting more diverse, more educated, wealthier, and older. Figure 29 summarizes these trends over the last decade.[26] A current snapshot of the region's demographics is shown in Figure 30.

FIGURE 29. REGIONAL DEMOGRAPHIC TRENDS (2010 - 2019)



** A discussion on the houseless population in the region is provided below.*

FIGURE 30. PERCENTAGE OF HISTORICALLY EXCLUDED COMMUNITIES IN THE REGION



[26] U.S. Census Bureau 1-year ACS estimates for the Eugene urbanized Area. This closely approximates the Central Lane MPO area

These trends reinforce the need to meet the diverse needs of all communities in the region when planning for the future of the transportation system. Further, each of these communities have unique needs.

Communities of Color

In 2010, 18 percent of the region identified as a person of color.[27] By 2019, this number increased to 22 percent. Higher representation of communities of color tend to center around the west Eugene and Springfield areas. These communities have historically been excluded from the planning process yet are impacted by policy and funding decisions. According to the *2020 Lane County Health Equity Report*, data show higher rates of poverty, lower median income, and fewer educational opportunities for people of races/ethnicities that have borne the brunt of racist policies and practices.[28]

As noted in Chapter 1, the public involvement process included outreach to communities of color through bilingual surveys. Specific outreach efforts to reach communities of color will continue to be included in future planning efforts.

Income

The median household income for the region was estimated to be $57,325 in 2019, which is approximately 80 percent of the amount for the state of Oregon.[29] This is an increase from the previous year, following the trend of yearly increases in median household income since 2012 in the region. Major employers in the region include PeaceHealth Medical Group and the University of Oregon, each with just under 6,000 employees, and Lane Community College, Sacred Heart Medical Center University District, Walmart, and Kendall Automotive Group with 1,000 to 2,000 employees each.[30]

The percent of the population living in poverty has decreased steadily since 2010. In 2010, 19 percent of the population was below the poverty level. That number decreased to 15 percent by 2019. The block groups with the highest percentage of households in poverty are generally located in Eugene's urban core, downtown Springfield, and clustered around the University of Oregon. In addition, many residents in Springfield and Eugene are struggling as evidenced by other indicators, as 19% of Eugene residents and 28% of Springfield residents receive food stamp benefits (SNAP), and 49% of students from the three Public School Districts in Eugene and Springfield are eligible for free and reduced lunch.[31]

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[27] Consistent with the Title VI plan, a "minority" was defined as all persons who identified themselves as non-white or Hispanic.

[28] *Lane County Health Equity Report*, 2020.

[29] 2019 American Community Survey data, Eugene-Springfield, OR Metro Area.

[30] Comprehensive Housing Market Analysis for Eugene-Springfield, Oregon, 2019. 2019 data collected from the U.S. Bureau of Labor Statistics.

[31] *Eugene and Springfield Community Profile and Needs, 2020 Consolidated Plan for Housing & Community Development*.

People living in poverty are less likely to own a car and may be more dependent on public transit or use other modes of non-automotive transportation.

Unhoused Individuals

While Census data show poverty is decreasing in the region, the unhoused crisis is a growing regional issue. The number of people experiencing homelessness in Lane County has been steadily increasing in recent years with a large portion (69%) of homeless people experiencing unsheltered homelessness.[32] According to a 2019 Homeless Point in Time (PIT) Count conducted by volunteers for Lane County, 2,165 total people were experiencing homelessness, where 462 individuals stayed in Emergency Shelter, 106 individuals were in Transitional Housing, and 1,633 individuals, families, and children were without shelter.[33] The total number of homeless people was an increase of 32% from 2018. This information is important to consider alongside traditionally collected data such as the Census to ensure that transportation needs of all individuals throughout the region are being considered.

Age

The median age of individuals living in the region is 39 years old, approximately the same as compared to the entire state of Oregon.[34] In the past 10 years, the percent of the region age 65 and older has increased, while the percent of the region under 18 has decreased. The number of people under 18 years has remained constant as the population has grown. However, the number of people 65 and older has increased in the past 10 years. The number of people aged 65 and older was recorded as 33,319 in 2010 and increased to 47,071 in 2019.

As the population gets older, it is important to provide for more mobility choices since mobility options for elderly people may be limited. Many people cannot drive after a certain age due to decrease in eyesight and other mobility issues. Public transportation can be a good option for elderly people. There are high concentrations of elderly people in the region that live outside of the urban core in Eugene and Springfield who may not have access to any transit options.

[32] Lane County Shelter Feasibility Study, December 2018.
[33] *2019 Point in Time Count Report*, May 2019
[34] 2019 American Community Survey data, Eugene-Springfield, OR Metro Area.

Two bicyclists use a bikeway in Central Lane County.

People with Disabilities

In the cities of Eugene and Springfield, about 32,438 people, or 16%, live with one or more disabilities. People with Disabilities are defined by Title VI as the percentage of people who reported at least one of six disability types: difficulty in hearing, vision, cognition, ambulatory, self-care, or independent living. The highest reported disabilities include ambulatory (8%), cognitive (8%), and difficulty with independent living (7%).[35] Census block groups with a high percentage of people with disabilities tend to center around the urban core of Eugene and Springfield.

People with disabilities may be more likely to depend on public transportation as a mobility option. Public transportation options include Lane Transit District's RideSource ADA service.

Education

While education is not included in the Title VI reporting, education levels have the potential to impact regional commute patterns. For example, workers with higher degrees may be more likely to have jobs that allow them to work from home. The education level of the region's residents has been increasing since 2010. The percent of the population over 25 that have no high school degree or equivalence was 10 percent in 2010. That number has decreased to six percent in 2019. The

[35] *Eugene and Springfield Community Profile and Needs, 2020 Consolidated Plan for Housing & Community Development*.

percent of the population with a bachelor's degree or higher was 31 percent in 2010, and that number has increased to 35 percent in 2019.

During the COVID-19 pandemic, travel patterns during commute hours drastically changed as a portion of the region's workers were required to work from home while other service jobs and essential workers were still making commutes. The long-term impact of the ability for a portion of jobs in the region to be done from home on commute trends is still being measured.

REGIONAL TRAVEL TRENDS

Regional travel trends are following suit with area growth and change. Monitoring evolving travel trends and the needs of both residents and visitors will help local agencies determine where and when transportation investments would be the most equitable and impactful. The following sections detail regional travel trends. Data in this section partially rely on the CLMPO travel demand model and land use allocation model (described further in Chapter 6). The travel model uses known information about the transportation system and peoples' travel decisions (from prior travel surveys) to estimate current and future travel trends and conditions. This tool helps to fill in the gaps between the collection of new travel surveys and other travel data.

REGIONAL COMMUTE PATTERNS

Understanding regional commute patterns is important to successfully plan to serve the employment sector. Regional commute trends are shown in Figure 31. According to the U.S. Census Bureau, CLMPO has 65,000 residents who both live and work within the region, 52,000 workers who live outside of the region and commute in for work, and 27,000 residents who live in the region who commute out of the region for work.[36]

[36] Source data from U.S. Census Bureau available through On The Map https://onthemap.ces.census.gov/

FIGURE 31. REGIONAL COMMUTE PATTERNS

Intraregional Commute

Most Eugene residents also work in Eugene (59 percent), with about 11 percent commuting to Springfield, one percent to Coburg and the remainder outside of the region (29 percent). About 44 percent of employees in Eugene also live there, with 13 percent living in Springfield and the remainder living outside of the region.

About 26 percent of Springfield residents also work in Springfield, with about 43 percent commuting to Eugene, one percent to Coburg, and the remainder outside of the region (30 percent). Of the people working in Springfield, about half live in Springfield or Eugene, with the remaining half coming from outside of the region.

Most Coburg residents work in Eugene (41 percent), with 15 percent working in Springfield and 36 percent working in areas outside of the region. Only about eight percent of people live and work in Coburg. For those commuting to Coburg, most come from Eugene (29 percent) or Springfield (15 percent). About two percent of employees in Coburg also live there, with the remainder commuting from outside the region. Table 8 summarizes where residents living in the three urban areas work.

TABLE 8. REGIONAL COMMUTE PATTERNS – WHERE RESIDENTS WORK

WHERE RESIDENTS LIVE	WHERE RESIDENTS WORK
EUGENE	59% work in Eugene 11% work in Springfield 1% work in Coburg
SPRINGFILED	43% work in Eugene 26% in Springfield 1% work in Coburg
COBURG	41% work in Eugene 15% work in Springfield 8% work in Coburg

Interregional Commute

As shown in Figure 31, approximately 52,000 workers in the region live externally and commute into the region. Approximately 52 percent of these workers reside in Lane County. These external commuters also live in Linn (seven percent), Douglas (five percent), Marion (four percent), and Benton (four percent) counties, among others. These residents primarily rely on regional transportation facilities, including I-5, for travel into and out of the region daily.

Approximately 27,000 residents commute outside the region to jobs. Approximately a third of these residents work elsewhere in Lane County. These residents also work in Marion (nine percent), Linn (five percent), and Benton counties (three percent), among others.

DAILY VEHICLE MILES TRAVELED

Daily vehicle miles traveled (VMT) is used to quantify the amount of all vehicle travel and includes trips made by automobile, freight, and transit within, entering, leaving, or passing through the MPO area (Table 9). This metric is calculated using the regional travel model and considers the product of total vehicle trips and the distance for each of those trips. The automobile represents the majority of VMT. The reported freight trips include medium and large trucks[37] and are vital for the movement of goods in and through the region. The presence of these freight trips can indicate an active economy. Transit miles round out the region's VMT and contribute towards the combined 5,170,000 daily vehicle miles traveled within, to, and through the region. While transit trips are reported as vehicle miles, these trips include multiple travelers within the vehicle.

[37] Delivery vans and smaller vehicles that serve e-commerce retailers are typically not reflected in these model projections.

TABLE 9. DAILY VEHICLE MILES TRAVELED

VEHICLE TYPE	TOTAL REGIONAL DAILY VEHICLE MILES TRAVELED	PERCENT SHARE
AUTOMOBILE	4,250,000	82 %
FREIGHT	910,000	18 %
TRANSIT	10,000	<1 %
TOTAL	5,170,000	100 %

Note: Regional VMT is estimated using the regional travel demand model[38]

MODE SHARE

A variety of modes can be used to get around the region. For shorter or recreational trips, active transportation modes, such as walking and biking, or transit (where available) are common options. Longer trips are typically candidates for transit or motor vehicle travel. There are other constraints or limitations that may determine the mode used for a specific trip.

Commute Mode Share

According to 5-year American Community Survey (ACS) Journey-to-Work data, mode share for commuters in the CLMPO area[39] has remained relatively constant for the last 10 years. Table 10 highlights the share of commute trips by mode in 2009 and 2019. On average, almost 70 percent of people commute to work using single-occupant motor vehicles. About 11 percent of residents carpool to work and the remaining work from home, walk, bike, take transit, or use some other means of travel.

About six percent of workers in the CLMPO region worked from home pre-COVID, and that figure likely increased due to COVID-19. It is unknown at this time how many of those workers will continue to telework after the threat of COVID-19 passes, but it seems likely that a higher percentage of workers will continue teleworking, at least part time. Any increase in the remote work share will change the demand on the transportation system. It is possible that the share of the workers needing to travel during the morning and evening peak commute times decreases and/or travel increases during off-peak times.

[38] A regional travel model is used to estimate these figures on a regional basis. Significant recent updates and enhancements to the model mean that values reported in prior plans (such as the 2004 RTP) were different and are not appropriate for providing a consistent comparison.

[39] CLMPO area is defined as the "Eugene Urbanized Area" in the ACS.

TABLE 10. REGIONAL COMMUTE MODE SHARE (2009 - 2019)

VEHICLE TYPE	2009	2019
DRIVE ALONE	70%	69%
CARPOOLED	10%	11%
PUBLIC TRANSIT	5%	4%
BICYCLE	6%	4%
WALK	5%	5%
WORK FROM HOME	4%	6%
OTHER	< 1%	1%

Overall Mode Share

The 2020 regional travel mode share estimates (for all trips) are summarized in Table 11. These estimates are broader than the ACS data, which focus on commute trips. Increasing the non-drive alone mode share (i.e., walking, bicycling, transit, and shared ride) reduces the impact that each person trip has on the transportation system by shifting users to more space-efficient travel options.

TABLE 11. REGIONAL TRIPS MODE SHARE

TRAVEL MODE	2020
DRIVE ALONE	54%
CARPOOLED	28%
PUBLIC TRANSIT	4%
BICYCLE	5%
WALK	9%
TOTAL NON-AUTO	18%

Note: Regional mode share is estimated using the regional travel demand model[40]

[40] A regional travel model is used to estimate these figures on a regional basis. Significant recent updates and enhancements to the model mean that values reported in prior plans (such as the 2004 RTP) were different and are not appropriate for providing a consistent comparison. Mode share is determined by information collected through the household travel survey.

SAFETY

As the number of vehicle miles traveled increases throughout the region, monitoring the safety of all roadways is critical to understanding how the transportation network is serving the area's travel needs.

Figure 32 shows the location of fatal and serious injury crashes that have occurred over the last four years.[41] Several corridors experienced multiple fatalities during this period, including OR 99, I-105, OR 126 Business (Main Street), Hayden Bridge Way, and River Road. During this period, there were 53 total fatalities from crashes, or approximately one per month.

Figure 33 shows the location of bicycle and pedestrian related crashes, with additional severity detail. Crashes involving these modes typically result in greater severity due to the vulnerability of these users, who are not protected with seatbelt and other safety devices inside a vehicle frame. Crash locations include areas with higher pedestrian and bicycle activity (downtown Eugene), and include other regional clusters such as Santa Clara, Springfield's Main Street, Harlow Road, and Mohawk Boulevard.

Crash data are compiled and reported annually by ODOT and include summaries by cities and the county. These data include incidents on the roadways reported from law enforcement, emergency responders, motorists, bicyclists, and pedestrians. Research is showing a disparity in crash data; particularly underreporting crashes involving bicycle and pedestrians. This is noted in recognition of the issue.

[41] For safety analyses, typically three years of crash data are reported as standard for the National Highway Transportation Safety Administration (NHTSA). At the time of the development of this Plan, 2019 crash data were being processed and produced. For that reason, the figures and tables in this report include the most recently available data to compensate for some of the less granular detail in 2019 data.

FIGURE 32. REGIONAL FATAL AND SERIOUS INJURY CRASHES (2016-2019)

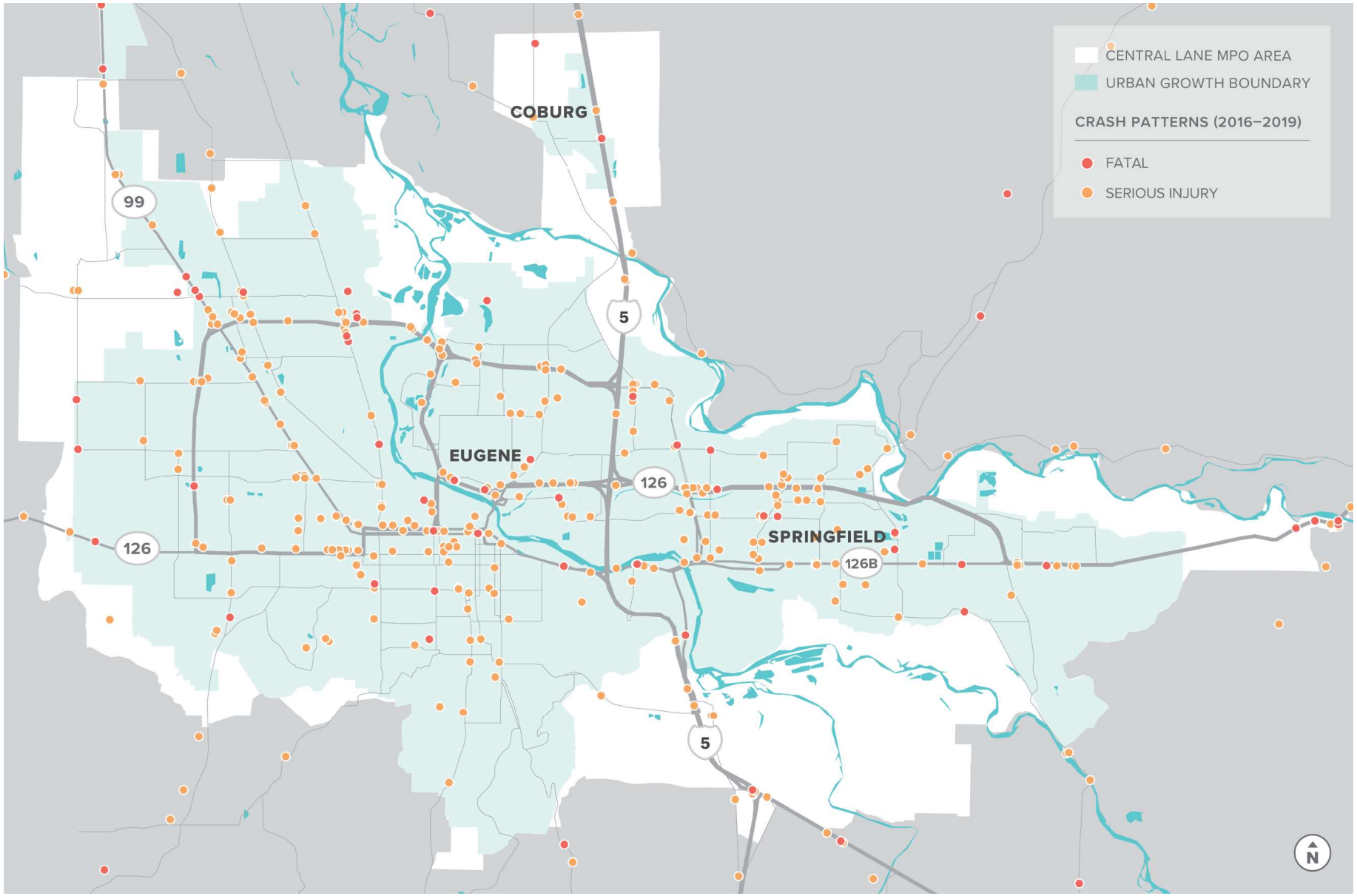
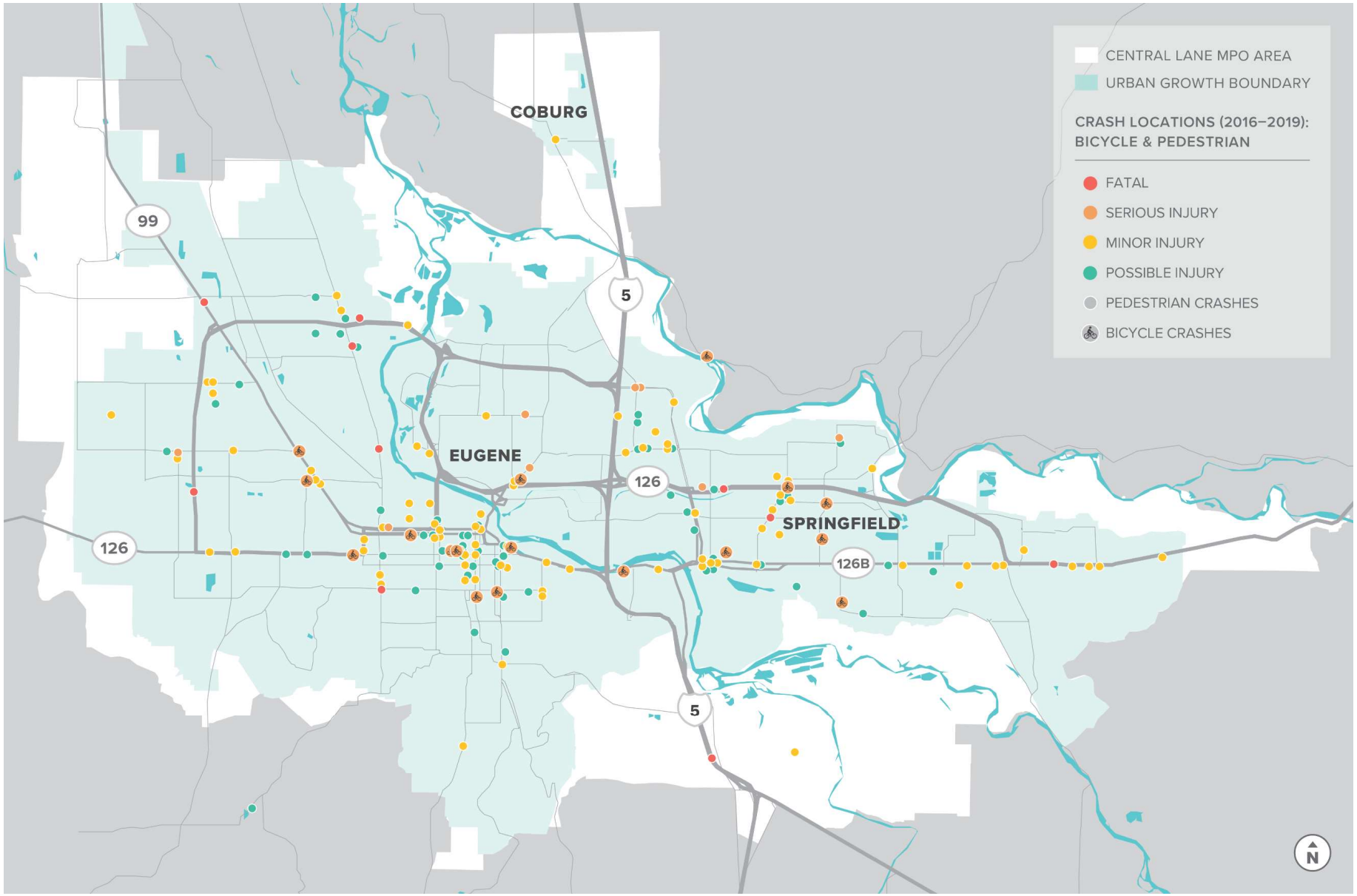


FIGURE 33. REGIONAL BICYCLE AND PEDESTRIAN CRASHES (2016-2019)



CHAPTER 4: FINANCIAL FRAMEWORK

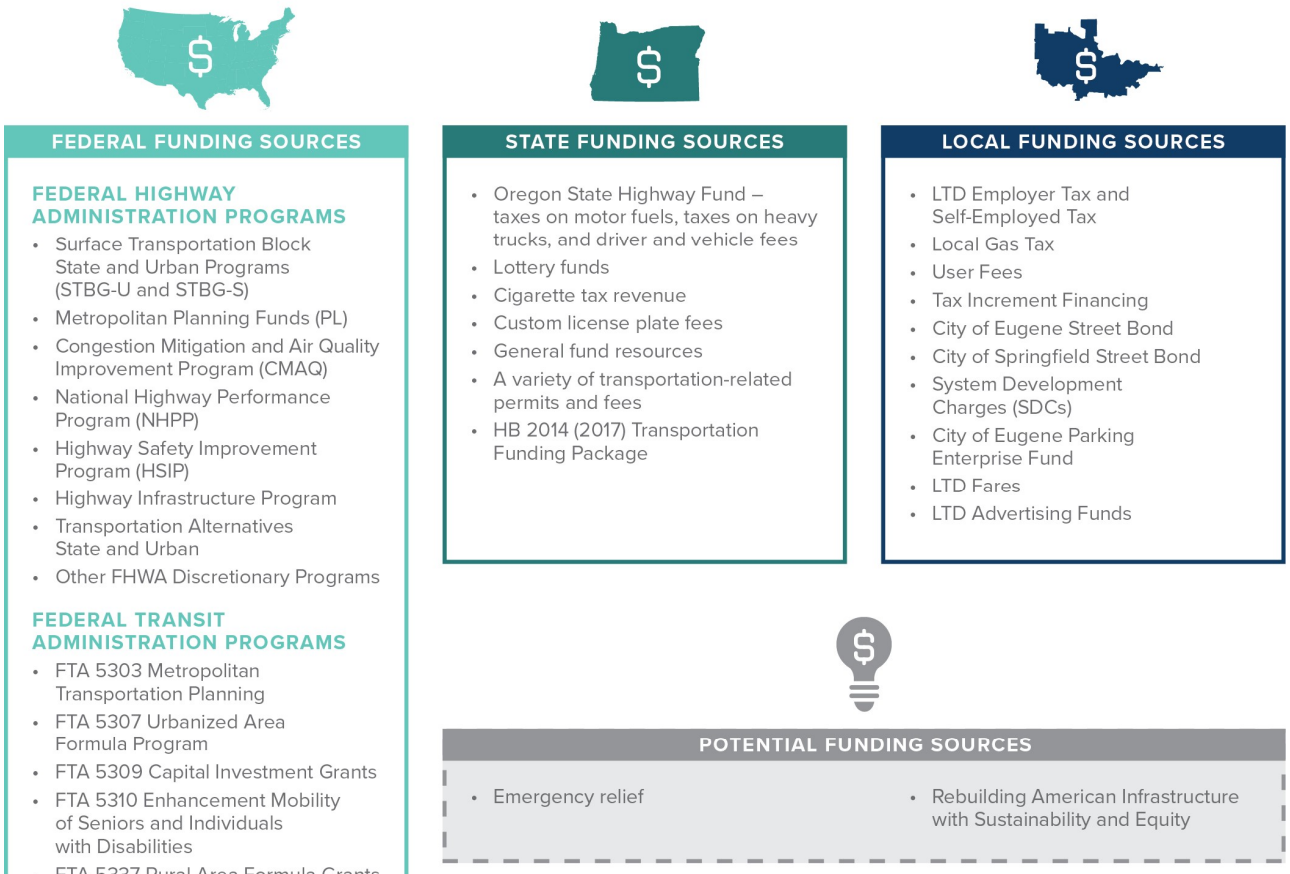
CLMPO's transportation system is financially supported by the federal and state governments via formula-based funding for planning and construction calculated based on residential populations and through competitive grant programs. Local agencies and jurisdictions support the system through capital project funding; operations, maintenance, and preservation funding; and transit funding.

Federal law requires the planned transportation investments in the RTP be financially constrained based on reasonably foreseeable forecast of future revenues. The forecasted revenues needed to fund the plan's projects and programs over the next 25 years are included in the Constrained List.

OVERVIEW OF REVENUE SOURCES

Transportation projects are typically designed and built by ODOT, Lane County, the MPO's city jurisdictions, and Lane Transit District using federal, state, and local funding sources. These sources are assumed in the revenue forecasts as resources to fund this Plan's projects and programs. This section discusses the funding sources and their applicability. Figure 34 provides a summary of federal, state, and local funding sources (this summary is not intended to be inclusive of every source).

FIGURE 34. HOW THE SYSTEM IS FUNDED



FEDERAL FUNDING SOURCES

Federal funding is provided by the federal government through ODOT for the CLMPO region. Funding allocations are based on population and program regulations set by FAST Act. CLMPO receives funding from FHWA and FTA programs. The federal funding assumptions are based on historic trends and assumed rate of growth through the RTP horizon year. Table 12 lists CLMPO's federal funding sources from the FHWA, and Table 13 lists the CLMPO's federal funding sources from the FTA Programs.

TABLE 12. FEDERAL FUNDING SOURCES – FEDERAL HIGHWAY ADMINISTRATION PROGRAMS

FUNDING SOURCE	DESCRIPTION AND REVENUE ASSUMPTIONS
SURFACE TRANSPORTATION BLOCK GRANT STATE AND URBAN PROGRAMS (STBG-U AND STBG-S RESPECTIVELY)	*Description:* Program provides flexible funding that may be used by states and localities for projects to preserve and improve the conditions and performance on any federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals. *Assumption:* CLMPO will continue to receive funds based on historical allocations.
METROPOLITAN PLANNING FUNDS (PL FUNDS)	*Description:* Program provides funding to MPOs to conduct planning activities required by Title 23 of the U.S. Code 134.[42] *Assumption:* CLMPO will continue to receive funds based on historical allocations.
CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM (CMAQ)	*Description:* Program provides formula funding for projects to reduce congestion and improve air quality. CLMPO became CMAQ eligible in FY2018. *Assumption:* CLMPO will continue to receive funds based on historical allocations.
NATIONAL HIGHWAY PERFORMANCE PROGRAM (NHPP)	*Description:* Program funds projects to achieve national performance goals for improving infrastructure condition, safety, mobility, and freight movement, consistent with state and metropolitan planning; construction, reconstruction, or operational improvement of highway segments; construction, replacement, rehabilitation, and preservation of bridges, tunnels, and ferryboats and ferry facilities; inspection costs and the training of inspection personnel for bridges and tunnels; bicycle and pedestrian infrastructure; intelligent transportation systems; and environmental restoration, as well as natural habitat and wetlands mitigation within NHS corridors. *Assumption:* CLMPO will continue to receive funds based on historical allocations.

[42] https://www.govinfo.gov/content/pkg/USCODE-2011-title23/html/USCODE-2011-title23-chap1-sec134.htm

FUNDING SOURCE	DESCRIPTION AND REVENUE ASSUMPTIONS
HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)	*Description:* A core Federal-aid program with the purpose to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned roads and roads on tribal land. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads with a focus on performance. *Assumption:* CLMPO will continue to receive funds based on historical allocations.
HIGHWAY INFRASTRUCTURE PROGRAM	*Description:* Program provides funding for necessary charging infrastructure along corridor-ready or corridor-pending alternative fuel corridors, and the bridge replacement and rehabilitation program. *Assumption:* CLMPO will continue to receive funds based on historical allocations.
TRANSPORTATION ALTERNATIVES STATE AND URBAN	*Description:* The FAST Act eliminates the MAP-21 Transportation Alternatives Program (TAP) and replaces it with a set-aside of Surface Transportation Block Grant (STBG) program funding for transportation alternatives (TA). These set-aside funds include all projects and activities that were previously eligible under TAP, encompassing a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, SRTS projects, community improvements such as historic preservation and vegetation management, and environmental mitigation related to stormwater and habitat connectivity. *Assumption:* CLMPO will continue to receive funds based on historical allocations.
OTHER FHWA DISCRETIONARY PROGRAMS	*Description:* Competitive programs where FHWA solicits for candidates and selects projects for funding based on applications received. *Assumption:* CLMPO will evaluate funding opportunity and determine project applicability on an as available basis.

TABLE 13. FEDERAL FUNDING SOURCES - FEDERAL TRANSIT ADMINISTRATION PROGRAMS

FUNDING SOURCE	DESCRIPTION AND REVENUE ASSUMPTIONS
FTA 5303 METROPOLITAN TRANSPORTATION PLANNING	*Description:* Program provides funding and procedural requirements for multimodal transportation planning in metropolitan areas and states. Planning needs to be cooperative, continuous, and comprehensive, resulting in long-range plans and short-range programs reflecting transportation investment priorities. *Assumption:* CLMPO and Lane Transit District will continue to receive funds based on historical allocations.
FTA 5307 URBANIZED AREA FORMULA PROGRAM	*Description:* Program makes federal resources available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation-related planning. *Assumption:* CLMPO and Lane Transit District will continue to receive funds based on historical allocations.
FTA 5309 CAPITAL INVESTMENT GRANTS	*Description:* Program funds transit capital investments, including heavy rail, commuter rail, light rail, streetcars, and bus rapid transit. Federal transit law requires transit agencies seeking CIG funding to complete a series of steps over several years. *Assumption:* CLMPO and Lane Transit District will continue to receive funds based on historical allocations.
FTA 5310 ENHANCEMENT MOBILITY OF SENIORS AND INDIVIDUALS WITH DISABILITIES	*Description:* provides formula funding to states for the purpose of assisting private nonprofit groups in meeting the transportation needs of older adults and people with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting these needs. The program aims to improve mobility for seniors and individuals with disabilities by removing barriers to transportation service and expanding transportation mobility options. This program supports transportation services planned, designed, and carried out to meet the special transportation needs of seniors and individuals with disabilities in all areas – large urbanized (over 200,000), small urbanized (50,000-200,000), and rural (under 50,000). Eligible projects include both "traditional" capital investment and "nontraditional" investment beyond the ADA complementary paratransit services. *Assumption:* CLMPO and Lane Transit District will continue to receive funds based on historical allocations.
FTA 5337 STATE OF GOOD REPAIR GRANTS	*Description:* Program provides capital assistance for maintenance, replacement, and rehabilitation projects of high-intensity fixed guideway and bus systems to help transit agencies maintain assets in a state of good repair. Additionally, SGR grants are eligible for developing and implementing Transit Asset Management plans. *Assumption:* CLMPO and Lane Transit District will continue to receive funds based on historical allocations.

FUNDING SOURCE	DESCRIPTION AND REVENUE ASSUMPTIONS
FTA 5339 BUS AND BUS FACILITIES	*Description:* Program provides funding to states and transit agencies through a statutory formula to replace, rehabilitate, and purchase buses and related equipment and to construct bus-related facilities. *Assumption:* CLMPO and Lane Transit District will continue to receive funds based on historical allocations.
OTHER FTA DISCRETIONARY PROGRAMS	*Description:* Competitive programs where FTA solicits for candidates and selects projects for funding based on applications received. *Assumption:* CLMPO and Lane Transit District will evaluate funding opportunity and determine project applicability on an as available basis.

STATE FUNDING SOURCES[43]

Oregon's State Highway Fund collects resources from three main sources:

- Taxes on motor fuels, including gas tax and diesel tax.
- Taxes on heavy trucks, including the weight mile tax and truck registrations.
- Driver and vehicle fees, including licenses and vehicle title and registration.

Under the Oregon Constitution, State Highway Fund fees and taxes must be spent on roads, including bikeways and walkways within the highway right of way. State funds can be used for both construction projects and the day-to-day maintenance and operations of the state's roads.

Formulas set in state statute distribute 50 percent of State Highway Fund revenues (after deducting the costs of collecting the revenue) to cities and counties.

Other State Funding

ODOT also receives revenue from several other state sources, including:

- Lottery funds, including lottery bond proceeds directed to the ConnectOregon program.
- Cigarette tax revenues, dedicated to transit services for seniors and disabled people.
- Custom license plate fees, dedicated to operating passenger rail.
- General fund resources for senior and disabled transit and passenger rail service.
- A variety of transportation-related permits and fees.
- HB 2017 (2017) Transportation Funding Package passed by the 2017 legislature created a number of new revenue sources for transportation:
    - A 0.5 percent vehicle dealer privilege tax on new car sales, which funds rebates for electric vehicles and provides ongoing funding for the multimodal ConnectOregon program.

[43] https://www.oregon.gov/odot/About/Pages/Transportation-Funding.aspx

- A 0.1 percent employee payroll tax ($1 for $1,000 in payroll) improves public transportation service in both rural and urban communities. This tax went into effect July 1, 2018.
- A $15 tax on the sale of new bicycles with tires over 26 inches and cost at least $200 goes to Connect Oregon for off-road bicycle and pedestrian paths that serve commuters.

LOCAL FUNDING SOURCES

The CLMPO regional partners include the Cities of Eugene, Springfield, and Coburg, Lane County, and Lane Transit District. Each have revenue sources beyond the state and federal sources that are used to pay for programs and capital projects, as well as roadway preservation, operations, and maintenance. In addition, some new streets are built by developers, but this does not provide a discretionary funding source for general transportation needs. Table 14 lists CLMPO's local funding sources.

TABLE 14. LOCAL FUNDING SOURCES

FUNDING SOURCE	DESCRIPTION
LANE TRANSIT DISTRICT EMPLOYER TAX AND SELF-EMPLOYMENT TAX	A local employer tax and self-employment tax in the Lane Transit District generates a total of approximately $38,000,000 annually. The employer tax is expected to generate $36.1 million in FY 2020, and the self-employment tax is expected to generate $1.9 million. The tax rate is set at seventy-four one hundredths of 1% increasing by one one hundredth of 1% each year to eight tenths of 1% in 2025. These funds are primarily used for Lane Transit District operations. They can be used as match for federal and state funding, and a portion of the funds are set aside most years to serve as match funding for state and federal funding.
LOCAL GAS TAX	The City of Eugene has had a local five cent gas tax in place since 2003. The tax raises approximately $3,000,000 per year. The revenues from the local gas tax are dedicated to the reconstruction, repair, maintenance, operation and preservation of city-owned roads and streets. The gas tax ordinance stipulates that no revenue shall be used for capacity-enhancing street improvements. As with the state gas tax, constitutional restrictions prevent revenue from being spent directly on public transit. By policy, the revenues raised from the local fuel tax have been limited to capital preservation projects and have not been used for street operations such as patching potholes, striping the streets, or keeping streetlights lit.
USER FEES	Fees paid by those who use the system. Transportation user fees are collected in the form of taxes on motor fuel at both the state and local level, and by state fees for licensing and registration of drivers and vehicles, as well as weight mile taxes imposed on the trucking industry.

FUNDING SOURCE	DESCRIPTION
TAX INCREMENT FINANCING	The City of Springfield has tax increment financing through its two urban renewal districts created by the City – one in Glenwood and one in Downtown. In an urban renewal district, additional taxes resulting from increases in assessed value are sequestered and made available to the district, which then uses those revenues to support debt service on urban renewal bonds used to finance projects within the district. At this point the revenues of either have not risen to the level deemed adequate to support bond issuance but that may occur within the CIP period of 2018-2022.
CITY OF EUGENE STREET BOND	In 2017, Eugene voters approved the third five-year street bond measure to help with the backlog of street repair projects in Eugene. The Bond generates about $8 million per year that will be spent on 91 road repairs on 78 streets through 2023. The bond also reserves $1 million per year for pedestrian and bicycle capital projects. Voters originally approved the street bond in 2008 and then again in 2012.
CITY OF SPRINGFIELD STREET BOND	Bond Measure 20-296 passed during the November 6, 2018 election. For the average homeowner, the bond cost is about $0.50 cents per $1,000 of assessed value each year for five years starting July 1, 2019. The bond was based upon assessed value, not market value. The median assessed value of a residential property was $160,000. At that value, a homeowner pays approximately $79 per year in estimated taxes, which is about $6.58 per month. Bond Measure funds raised go toward street repair projects only.
SYSTEM DEVELOPMENT CHARGES	System Development Charges (SDCs) are fees that help fund construction or expansion of public infrastructure which is necessary to support community growth. SDCs are charged to increase capacity for travel for auto, transit, bicycle, and pedestrian trips. SDCs are typically collected at the time a building permit is issued. SDCs can be either reimbursement SDCs, based on the value of unused capacity available to future system users, or improvement SDCs, used to fund future capital improvements to increase the system capacity. Developments cannot be charged twice for the same capacity.
CITY OF EUGENE PARKING ENTERPRISE FUND	The City of Eugene Parking Enterprise fund is funded through parking fees paid in city-owned parking garages, surface parking lots, on-street parking meters, and parking fines charged for improperly parked vehicles.
LANE TRANSIT DISTRICT FARES	Lane Transit District passenger fares generated just over $6.8 million in FY 2018. These fares can be used to fund both capital projects and operations but are primarily used to fund ongoing operations.
LANE TRANSIT DISTRICT ADVERTISING FUNDS	Lane Transit District has opportunities on buses, in buses, and at bus stops for advertisements.

POTENTIAL FUNDING SOURCES

Additional influxes of funding are always a potential. Typically, additional and unpredicted revenue has come from competitive grant awards. However, unforeseen circumstances, like the COVID-19 relief response, bring emergency relief funds. Given the nature of these funding sources and purposes, this list (Table 15) is not inclusive, and sources are not included in the fiscally constrained revenue forecasts.

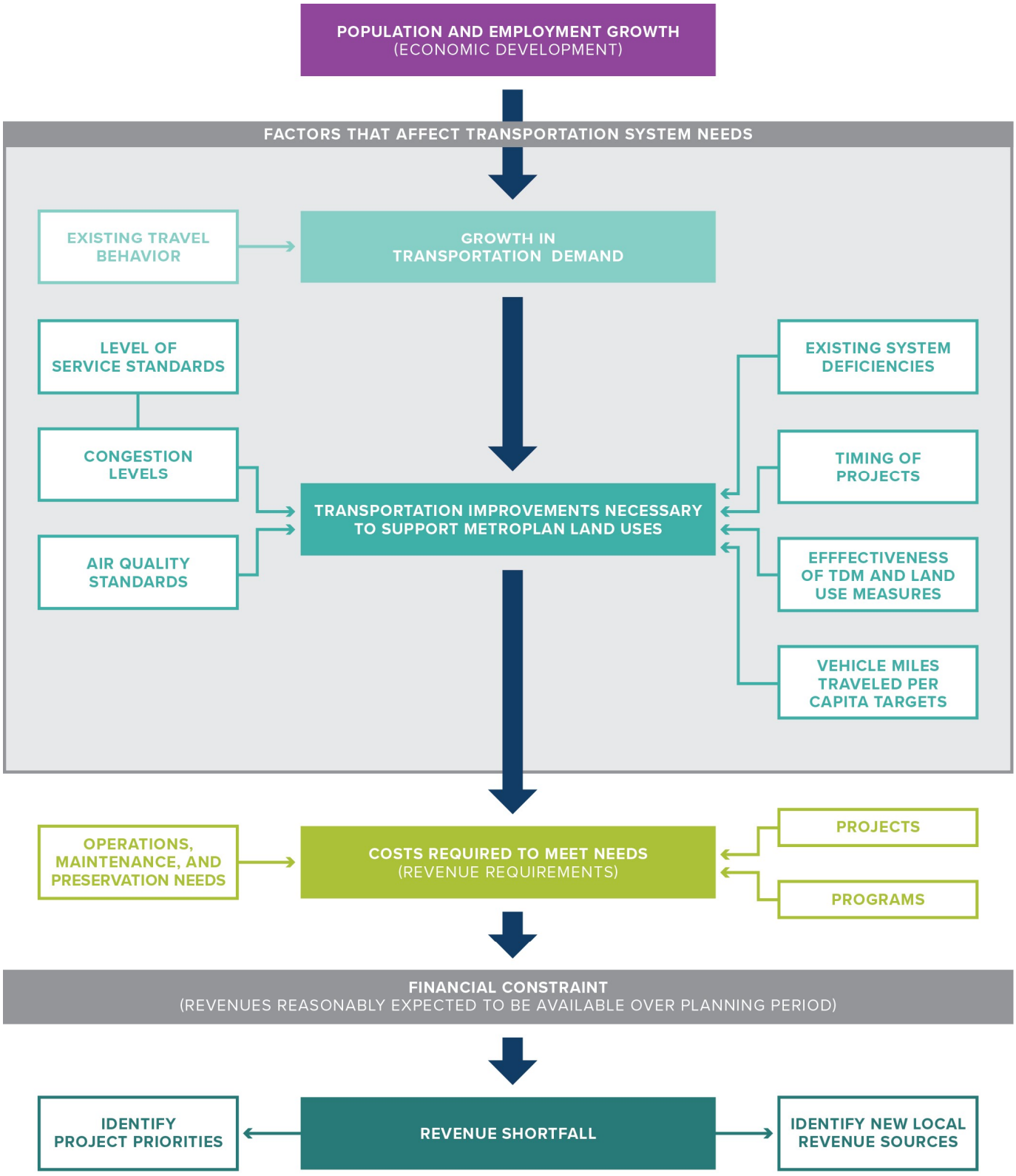
TABLE 15. POTENTIAL FUNDING SOURCES

FUNDING SOURCE	DESCRIPTION
EMERGENCY RELIEF	Federal or State governments may provide funding in the form of direct relief payments, grants, or other means in response to economic crisis related to a pandemic, natural hazard, or other cause.
REBUILDING AMERICAN INFRASTRUCTURE WITH SUSTAINABILITY AND EQUITY (RAISE)	The U.S. Department of Transportation published a Notice of Funding Opportunity (NOFO) to apply for $1 billion in Fiscal Year (FY) 2021 discretionary grant funding through the RAISE grants on April 13, 2021. Projects for RAISE funding will be evaluated based on merit criteria that include safety, environmental sustainability, quality of life, economic competitiveness, state of good repair, innovation, and partnership. Within these criteria, the Department will prioritize projects that can demonstrate improvements to racial equity, reduce impacts of climate change, and create good-paying jobs. The deadline to submit an application was July 12, 2021.

COST FORECAST ESTIMATE FOR RTP PROJECTS AND PROGRAM INVESTMENTS 2020 TO 2045

The level of transportation needs and the amount of revenues available to pay for the needs depend on several key factors, such as travel behavior and the timing and demands to allocate finite resources throughout the transportation system. Figure 35 illustrates some of the interrelationships among key factors contributing to the RTP's financial constraint.

FIGURE 35. CONTRIBUTORS TO FINANCIAL CONSTRAINT



As presented, transportation improvements necessary to support the region's current and future land use patterns arise from several sources. Population and employment growth and existing travel behavior contribute to a growth in transportation demand. Increased demand necessitates adding to the existing system for all modes through specific system improvements. The need for system improvements is also affected by deficiencies in the existing system, decisions about system standards (such as level of service/congestion and pavement condition) to be provided on the region's transportation facilities, and the level and effectiveness of strategies like TO measures; investments in bicycle, pedestrian, and transit modes; future land use patterns; and the timing of projects.

System improvement needs can also be affected by the requirement to meet national air quality standards and the VMT per capita targets specified in the state's Transportation Planning Rule. In some cases, where an improvement reduces congestion, air quality can be improved. An improvement that has the effect of significantly increasing the number of vehicle trips can cause a decrease in air quality. Overall, the CLMPO area is expected to experience improved air quality over the next 20 years. In isolation, major system improvements can appear to have the effect of increasing VMT per capita.

In addition to system improvements, the Plan must also consider the resources required for adequate operations, maintenance, and preservation (OM&P) of the existing and future transportation system. The need for ongoing OM&P applies to all parts of the overall system including roadways, transit vehicles, bikeways, and sidewalks. The level of OM&P need is affected by the general size of the system and the function of the roadway system (freeway, arterial, and collector).

The combination of project and program costs and the costs of OM&P activities represents the total costs required to meet future transportation needs in the region. The region's ability to provide for these needs is constrained by the revenues reasonably expected to be available over the 25-year planning period. Project and program costs are represented in Table 16; OM&P costs are represented in Table 17.

OM&P cost forecasts are projections of real 2020 costs to 2045 using a 3.1% inflation factor. It is reasonably assumed the agencies listed in Table 17 will continue to receive adequate funding for the OM&P costs through this Plan's horizon year.

TABLE 16. RTP PROJECTS AND PROGRAM COST

RTP PROJECTS AND PROGRAMS	PROJECT AND PROGRAM COSTS 2020 THROUGH 2045
ROADWAY PROJECTS	$1,963,000,000
BIKE AND PEDESTRIAN PROJECTS	$797,000,000
TRANSIT PROJECTS	$152,000,000
PROGRAMS	$12,500,000
STUDIES	$5,800,000
TOTAL	$2,930,300,000

TABLE 17. OPERATIONS, MAINTENANCE, AND PRESERVATION COSTS BY AGENCY

AGENCY	OM&P COSTS 2020 THROUGH 2045
COBURG	$9,244,000
EUGENE	$938,020,000
LANE COUNTY	$158,576,000
SPRINGFIELD	$104,835,000
LANE TRANSIT DISTRICT	$220,996,000
ODOT	TBD
TOTAL	$1,431,653,000

REVENUE FORECAST ESTIMATE FOR RTP PROJECTS AND PROGRAM INVESTMENTS 2020 TO 2045

The Central Lane MPO transportation program is funded by a mix of federal, state, local, and private sources. Revenue and sources have remained relatively stable historically. However, the

need outpaces funding availability, resulting in a gap to realizing the fully envisioned multimodal transportation system.

The RTP revenue forecast is a reasonable estimate based on historic revenue and foreseeable funding. These revenues support the constrained transportation investments and programs included in the plan. Funding comes from a variety of federal, state, local, and private funding sources. Overall, CLMPO has forecasted $1.65 billion in revenues over the course of the Plan horizon year of 2045. The total transportation costs, the Constrained list plus the Illustrative list in Chapter 5, are estimated at $2.93 billion, leaving an approximate funding gap of $1.26 billion.

For revenue forecasting, the rate of growth per funding source is determined by using the current year dollars and extrapolating it out over the Plan horizon year using a 3.1% inflation factor. All dollars have a base year of 2020. Revenue assumptions in this RTP are based on existing federal, state, and local source allocations and future private sources. CLMPO participates in the statewide task force of MPO representatives working with ODOT to develop updated revenue forecasts.

Projects and programs are presented in Chapter 5. Project cost estimates in the year of expenditure are calculated with an inflation rate of 3.1% from current cost to implementation year.

Two bicyclists walk their bikes across the street at a pedestrian crossing.

DEVELOPMENT OF CONSTRAINED PLAN

As described at the beginning of the financial plan, the RTP is required to be constrained by revenue "reasonably expected to be made available" and demonstrate its ability to support the land use pattern present in the local comprehensive plans. The revenue shortfalls identified above can be addressed through either one of two primary means: a prioritization of needs (and the resulting movement of low-priority unfunded needs to a future project list, otherwise referred to as an illustrative list), or the development of new revenue sources.

Funding the full RTP vision will take longer than this Plan's 2045 horizon date and will cost more than the $1.65 billion in revenues forecasted through that timeframe. The project list in Chapter 5 has been constrained to the revenue forecast and represents the projects and programs anticipated to be funded within the next 25 years. The Constrained Project list forecasted cost is $1.65 billion.

The options below present possible strategies to address the anticipated revenue shortfall, suggesting factors to consider in establishing priorities and outlining the range of new revenue sources that may be considered to advance Illustrative projects and realize the RTP vision more fully by 2045.

1. INCREASED FEDERAL AND STATE TAXES AND FEES

Develop a united front to support state and federal efforts to develop additional transportation resources and obtain an equitable share of those resources for the metro area.

2. ACCEPT LOWER LEVEL OF SERVICE

Establishing a set of needs within the limits of available resources can be accomplished by assigning a priority to specific projects or categories of projects. The major issues surrounding the level and priority of transportation system needs can be identified by assessing the tradeoffs that come with varying the acceptable level of congestion on roadways. A key policy tool in this discussion is level of service (LOS) standards. These standards are set to reflect the region's willingness to accept a certain level of congestion on its roadway system. Generally, lowering LOS standards will have the effect of reducing the need for system improvements. Accepting increased congestion allows some system improvements to be postponed. Conversely, maintaining higher LOS will require more system improvements to reduce the amount of congestion. Table 18 highlights some of the tradeoffs associated with different levels of congestion.

TABLE 18. TRADEOFFS WITH DIFFERENT LEVELS OF CONGESTION

POLICY CHOICE	IMPACT ON STANDARD	POTENTIAL TRADEOFFS
ACCEPT MORE VEHICULAR CONGESTION	LOWER LEVEL OF SERVICE FOR MOTOR VEHICLES	• Reduce system improvement costs • May reduce air quality in some areas • Increase hours of delay • Increase vehicle operating costs • Increase accidents • Increase traffic infiltration into neighborhoods • Increase use of active modes
ACCEPT LESS VEHICULAR CONGESTION	RAISE LEVEL OF SERVICE FOR MOTOR VEHICLES	• Increase system improvement costs • Improve air quality in specific areas • Reduce hours of delay • Reduce vehicle operating costs • Reduce accidents • Reduce traffic infiltration of neighborhoods • Reduce use of active modes

Other policy tools exist that can affect vehicular congestion levels. This Plan is based on the use of a range of land use, TO, and ITS measures to address the issues associated with congestion. In the long run (beyond the 25-year planning horizon), land use measures implemented in the planning period can have an effect on congestion levels. TO measures can be used in the short run to affect demand at specific locations, though voluntary measures can only contribute to a reduction in congestion, not provide the full solution.

Thus, the primary set of actions available to address vehicular congestion in the planning period are the system improvement actions described in other sections of this chapter. Development of system improvement priorities should be based on a consideration of some of the tradeoffs highlighted above. In particular, it will be important to identify which projects can be postponed without significant degradation to the roadway system's LOS. These might include ODOT freeway projects, interchanges, or local projects without identified funding sources.

3. SPECIAL ROAD FUNDING OPPORTUNITIES

Identify special road funding opportunities to take advantage of state and federal resources such as Immediate Opportunity Funds, federal demonstration grants, or state or federal economic development grants.

4. STORMWATER MANAGEMENT

Establish a stormwater utility fee for the area between the city limits and the urban growth boundary (UGB) and apply user fee revenues to augment Lane County Road fund expenditures on roadway drainage projects.

Use Eugene and Springfield stormwater SDCs for the eligible drainage component of eligible Lane County Road modernization projects within the UGB.

5. TRANSPORTATION UTILITY FEE

A Transportation Utility Fee (TUF), or transportation system maintenance fee, is analogous to a stormwater user fee. Each developed property within an area is charged a monthly fee for their anticipated use of the transportation system. These fees are determined by a methodology that is usually based on the trip-making characteristics of the land use type and becomes a fixed fee for that user. The fees can be collected on water utility bills just as sanitary and stormwater fees are currently. The fees can be set to generate any amount of revenue but are typically designed to cover a portion of ongoing OM&P or to pay for preservation activities. The revenue is flexible and may be used for any purpose reasonably related to use of the public-sector transportation system, including maintenance of off-street bike and pedestrian facilities. These fees are typically not used for capacity-increasing projects because they are paid by existing users of the system.

6. INCREASED SYSTEMS DEVELOPMENT CHARGES

There are several potential revenue-enhancing revisions to the existing Coburg, Eugene, and Springfield SDC methodologies and rate structures that could be explored.

The transportation SDC methodologies could be revised to include the impact on county arterials and collectors and to ensure that, wherever possible, the combination of assessments and SDCs cover 100 percent of the costs of the local arterial and collector street projects. One estimate showed that such a revision in the Eugene-Springfield area would increase revenues by approximately $7.6 million over 20 years, increasing the transportation SDCs by about 21%.

The transportation SDC could also be expanded in the future to include capacity increasing transit facilities should transit revenues be insufficient to maintain the current level of service as growth occurs.

Another component that could be added to the local SDC rate structure would be one that addresses the local contributions Coburg, Eugene, and Springfield make to state roadway projects. These local expenditures on state projects are not currently included in the calculation of the SDCs.

It should be noted that there is a shortage of housing affordable to people who earn low and moderate incomes in the Eugene-Springfield area and increasing SDC rates could exacerbate this issue. Any SDC rate increases should be done sensitively considering the impacts on different groups.

7. TRANSFER OF JURISDICTION

A transfer of certain ODOT facilities to local jurisdictions in exchange for state assumption of locally owned segments of the National Highway System might allow for the use of local revenues (assessments and SDCs) on facilities that are unlikely to be improved by the state during the planning period.

Modernization projects could then be funded from a combination of assessments, transportation, and stormwater SDCs—revenue sources that are currently unavailable at the state level. However, in addition to handing over responsibility for costs, a transfer of ODOT facilities would also result in a reduction in revenues to the local ODOT district office because those revenues are partly dependent on total lane miles within the district. This reduction in revenue would result in the ODOT system improvements line item still showing a shortfall.

8. ACCEPT LOWER STANDARDS IN OPERATIONS, MAINTENANCE, AND PRESERVATION

The standards applied to the OM&P of the transportation system determine the need for transportation revenues. This strategy consists of revisiting those standards to determine whether or not they are in line with priorities. In addition to the LOS (congestion) standard discussed above, other OM&P standards could be changed. Two possible strategies of this type are to eliminate maintenance on local gravel roads or on unimproved streets (streets with a thin surface treatment). Eliminating maintenance on metro area gravel local roads would save an estimated $1.6 million over 20 years. Eliminating maintenance on unimproved local streets would save about $5.8 million over the same period.

9. BOND MEASURES

Property tax-based measures, including capital bonds and levies, may be used to fund transportation activities. Both Eugene and Springfield have recently included street preservation projects in a bond levy.

10. REGIONAL TRANSPORTATION TAXES

Eugene and Springfield currently impose local gas tax equivalents of 5¢ and 3¢ per gallon, respectively. Coburg currently imposes a local gas tax equivalent of 3¢ per gallon (non-diesel). Additional local or regional gas taxes and/or vehicle registration fees, or an increase in the existing tax, could be developed to fund the remainder of the gap in financing for the non-state road network. Each 1¢ of gas tax would generate about $1.2 million countywide. The current state tax is 30¢ and is shared among the state, counties, and cities. A simple gas tax does not include a comparable weight-mile tax for trucks, such as what the state currently has.

Motor vehicle registration fees may be imposed by counties with a county-wide vote. The registration fee may not exceed that of the state, currently $86 per two-year period for a passenger car. The funds must be shared with the cities within the county. Two or more counties may act jointly. In 2015, Lane County proposed a $35 per year vehicle registration fee which, if it had been approved by a majority of Lane County voters, would have generated $11 million per year for road repairs. The measure did not pass.

11. BRIDGE TOLLS

Bridge tolls may be used to provide revenues for the construction of specific bridges. For example, tolls could be used to fund the construction of new river crossings. These tolls could be removed when construction has been paid in full or could remain in place to fund OM&P of the bridge.

12. BROADENED ASSESSMENT PRACTICES

Under Oregon law, local improvement districts may be used to assess property owners for improvements that benefit the properties. Local agencies use local improvement districts to assess property owners for the initial street improvement resulting in a fully improved street, usually including curbs, gutters, and sidewalks. Some jurisdictions have begun using improvement districts to assess property owners for preservation and reconstruction projects. Other jurisdictions are using them to fund ongoing operations and maintenance activities through an annual assessment. These may occur when streets need pavement overlays or when the street has reached the end of its useful life and needs to be reconstructed. The potential yield from this policy has not been estimated but potentially could fund a significant portion of the preservation needs. Remonstrance provisions in local codes may preclude the use of this tool unless property owners approve.

13. POSTPONE PROJECT TO ILLUSTRATIVE PROJECTS LIST

Prioritize projects and postpone projects based on availability of revenue. Postponed projects would be moved to the appropriate Illustrative project list within the RTP, pending availability of additional revenues.

CHAPTER 5: REGIONAL PROJECTS

This Chapter provides the range of transportation programs and projects needed to meet the transportation needs of people and freight through 2045 as evaluated through setting the region's goals and objectives (Chapter 2) and assessing current and forecast travel demand and transportation system performance (Chapters 3 and 6).

The transportation solutions contained in this chapter include projects, programs, and plans that will collectively support the region's transportation goals and objectives for transportation choices; safety, security, and resiliency; healthy people and environment; equity; economic vitality; reliability and efficiency; and system asset preservation.

There are transportation strategy solutions to address the travel demand side as well as system supply side, strategies to increase the efficiency of the existing regional transportation system, and, to a lesser extent, strategies to provide for capacity expansion to accommodate growth. There are solutions requiring construction of capital projects, solutions requiring planning applications with consideration for multiple transportation modes, and solutions requiring emerging technology and intelligent transportation systems to address needs.

In developing a balanced transportation system, it is not only capacity deficiencies that must be addressed but also preservation and maintenance of the existing regional transportation system and solutions to make for a safer transportation for the mobility of people and freight. Transportation options and choices for all modes must be made available to a community with diverse residents and businesses.

CLMPO consulted with the Cities of Coburg, Eugene, and Springfield, Lane County, Lane Transit District, and ODOT for the regional programs, plans, and project list development. Programs, plans, and projects included on the list 1) advance one or more of the region's transportation goals, 2) provide regionally significant[44] benefit, and 3) are fiscally constrained. Fiscal constraint, as defined in Chapter 4, refers to project or program costs within reasonably expected revenues over the planning period.

The primary sources of the projects contained in this list are public outreach feedback and partner agencies' transportation plans, including:

- City of Coburg's Transportation System Plan
- City of Eugene's Transportation System Plan
- City of Springfield's Transportation System Plan
- Lane County's Transportation System Plan
- Lane Transit District's Long-Range Transit Plan, Transit Tomorrow, and Coordinated Plan

[44] Regionally significant project means a transportation project (other than projects that may be grouped in the TIP and/or STIP or exempt projects as defined in EPA's transportation conformity regulations (40 CFR part 93, subpart A)) that is on a facility that 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, or employment centers; or transportation terminals) and would normally be included in the modeling of the metropolitan area's transportation network. At a minimum, this includes all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel.

- ODOT's *Oregon Transportation Plan* and *Oregon Highway Plan*

This Chapter presents the projects, plans, and programs as well as major foundations that influence project development and design. Together, these elements are intended to achieve the RTP's goals and objectives.

RELATIONSHIP BETWEEN LONG RANGE PLANS AND IMPROVEMENT PROGRAMS

The RTP establishes the regional list of projects which may be programmed for federal funding. It is directly related to the Metropolitan Transportation Improvement Program (MTIP) which derives projects either directly from the RTP or indirectly from the goals and policies within it. The RTP is the long-range policy and planning document while the MTIP is the short-term implementation document that enables those planned project to begin work. Specifically, the MTIP lists the projects from this RTP that have committed funding or reasonably available funding and are intended to begin a phase of work during the four years of the MTIP.

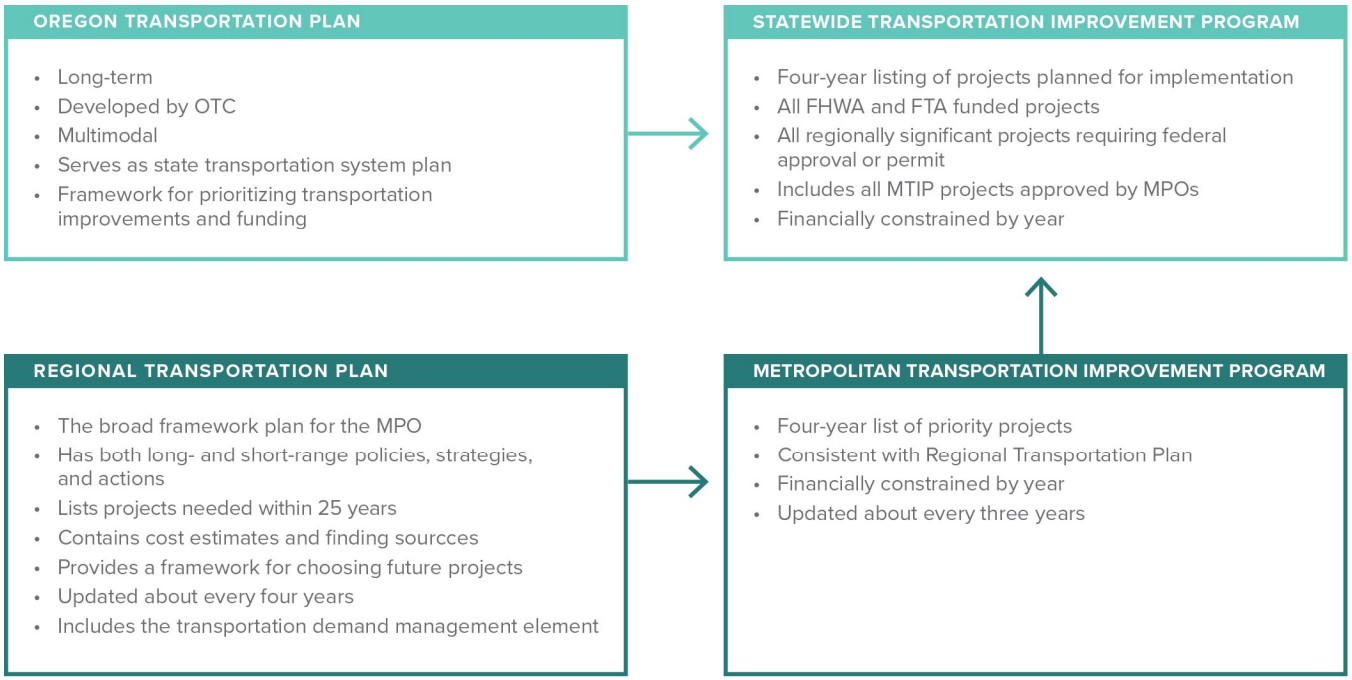
Similar to the RTP, the *Oregon Transportation Plan* (OTP) is a long-range planning and policy document adopted by the Oregon Transportation Commission. It serves as the state's transportation system plan and a framework for prioritizing transportation improvements and funding. All projects that have FHWA and/or FTA funding, are regionally significant, and/or are in an MPO's MTIP must also be programed into the Statewide Transportation Improvement Program (STIP), which, like the MTIP, is a four-year list of projects planned for implementation.

An update to the OTP is currently underway and will replace the version adopted in 2006. Once the OTP update is complete in 2023, ODOT will update the Oregon Highway Plan, which will replace a version adopted in 1999. In updating these Plans, ODOT is considering a range of trends, opportunities, and uncertainties, such as continual population growth, increasing freight volume, dramatic technological changes, and the threat of climate change impacts on communities and the transportation system.[45] This RTP considers the same range of trends and is equally committed to realizing a transportation system that is resilient and that accommodates multiple users with different needs.

Figure 36 shows the relationship between the RTP, MTIP, OTP and STIP.

[45] https://www.oregon.gov/odot/Planning/Pages/Plan-Development.aspx

FIGURE 36. RELATIONSHIP BETWEEN THE RTP, MTIP, OTP, AND STIP



FOUNDATIONAL PROGRAMS, PLANS, AND ELEMENTS

MAINTENANCE OF THE EXISTING REGIONAL TRANSPORTATION SYSTEM

A top priority in planning for the regional transportation system is maintaining the existing system. Maintenance addresses the day-to-day activities needed to keep the transportation system in good working order and daily operations that keep the system safe, clean, reliable, and efficient. Such activities include incident response, filling potholes, repairing bridges, maintaining drainage ditches, installing guardrails, plowing snow, removing rocks, and efficiently operating traffic signals. Local jurisdictions, ODOT, and Lane Transit District monitor the condition and operation of the existing system and program maintenance projects.

This RTP gives maintenance a high priority in the programming of transportation funds and reports on funding these needs in Chapter 4. The RTP supports the routine, regularly scheduled and necessary maintenance work identified by local jurisdictions. At the statewide level, maintenance, preservation, and safety are primary policy and financing considerations.

PRESERVATION OF THE EXISTING REGIONAL TRANSPORTATION SYSTEM

Preservation of the existing regional transportation system is also important to protect the significant investments already made. Preservation can prolong the life of the existing transportation system through such projects as repaving roads and shared use paths, rehabilitating bridges, seismic retrofit, and rock fall protection. Preservation needs are identified through the Pavement Management System (PMS) and local needs analysis. The RTP is highly supportive of prioritizing such project needs. System maintenance and preservation is addressed in Chapter 4.

BRIDGES

Bridge crossings are a vital part of the transportation infrastructure. ODOT evaluates and summarizes the condition of bridges located on the Oregon state highway system every year. The bridge network is evaluated using ODOT's key performance measure and National Bridge Inspection standards established by FHWA.[46]

Lane County's Bridge Projects Crew is headquartered at the County's Public Works Road Maintenance Division on North Delta Highway and performs bridge maintenance throughout the County. Lane County's *June 2017 Road and Bridge Maintenance Report* found that, "…county road pavements are currently rated in good or very good condition and bridges are rated in fair to very good condition. However, current funding and pavement and bridge preservation activities fall short of what is needed to protect these assets. If pavement and bridge conditions decline due to inadequate preventative maintenance, higher rehabilitation and reconstruction costs will result in the long-term…"[47] Per the Lane County Road and Bridge Projects: FY 2019/2020 – 2024/2025, the County uses the statewide bridge inspection program, which assesses bridge conditions and recommends repair, maintenance, and rehabilitation to extend the life of the bridge, to establish priorities for bridge rehabilitation and preservation.

SAFETY

Safety is a primary concern for the CLMPO, and it is a key consideration in transportation planning, programming, and development.

LCOG partnered with Lane County in 2017 to create the Safe Lane Transportation Coalition (SLTC). SLTC works to reduce the number of severe and fatal crashes in Lane County by using the strengths of the member organizations to influence and establish transportation safety policies, programs, and practices. The coalition accomplishes this through selecting and implementing specific strategies that address Driving Under Influence of Intoxicants (DUII) prevention, speed reduction, and general transportation safety education and outreach.

SLTC grew out of the *CLMPO Regional Safety and Security Plan.*[48] In 2015, CLMPO and Lane County began collaborating on an innovative planning process to address the growing need to prioritize safety throughout the region's transportation system. The result of that effort was *The Safe Lane*, a safety action plan that established a regional vision and goals that set the groundwork for systematic changes to the region's transportation system. The plan includes strategies and performance measures to track progress throughout implementation. *The Safe Lane* is closely aligned with the goals of ODOT's T*ransportation Safety Action Plan*. *The Safe Lane* envisions a future culture of safety that prioritizes safety for all people regardless of mode and recognizes the importance of every life traveling on the region's transportation network. This vision provides a

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[46] https://www.oregon.gov/odot/Bridge/Pages/BCR.aspx

[47] https://p1cdn4static.civiclive.com/UserFiles/Servers/Server_3585797/File/Government/County%20Departments/County%20Performance%20Auditor/RBM_2017_01.pdf

[48] https://www.lcog.org/sites/default/files/fileattachments/transportation/mpo/page/3493/clmpo_regional_.pdf

new way of thinking about death and severe injuries on the regional transportation network as something preventable rather than inevitable.

The 2005 Federal transportation legislation Safe, Accountable, Flexible, Efficient, Transportation Equity Act (SAFETEA-LU) both established safety as federal priority and required safety as a separate planning factor. This priority has been maintained through both subsequent transportation bills including MAP-21 and most recently the 2015 FAST Act. As an MPO, CLMPO recognizes the importance of meeting the federal requirements of performance-based planning and the role of safety within that model. Furthermore, this region has experienced increasing fatal and severe injuries over the past few years and the MPO and its partner jurisdictions have refocused efforts on transportation safety. There is a strong desire throughout the region to go beyond fulfillment of federal requirements. The number of traffic deaths in Oregon rose 27% between 2014 and 2015, the largest increase in 50 years. While vehicle and technology improvements over the last few decades have helped to improve road safety, the numbers from 2015 mark an increase in crashes locally, throughout Oregon, and across the country. These fatalities and severe crashes deeply impact families and broader communities, and the *CLMPO Safety and Security Plan's* framework is focused on reducing the number of severe-injury and fatal traffic collisions in the region.

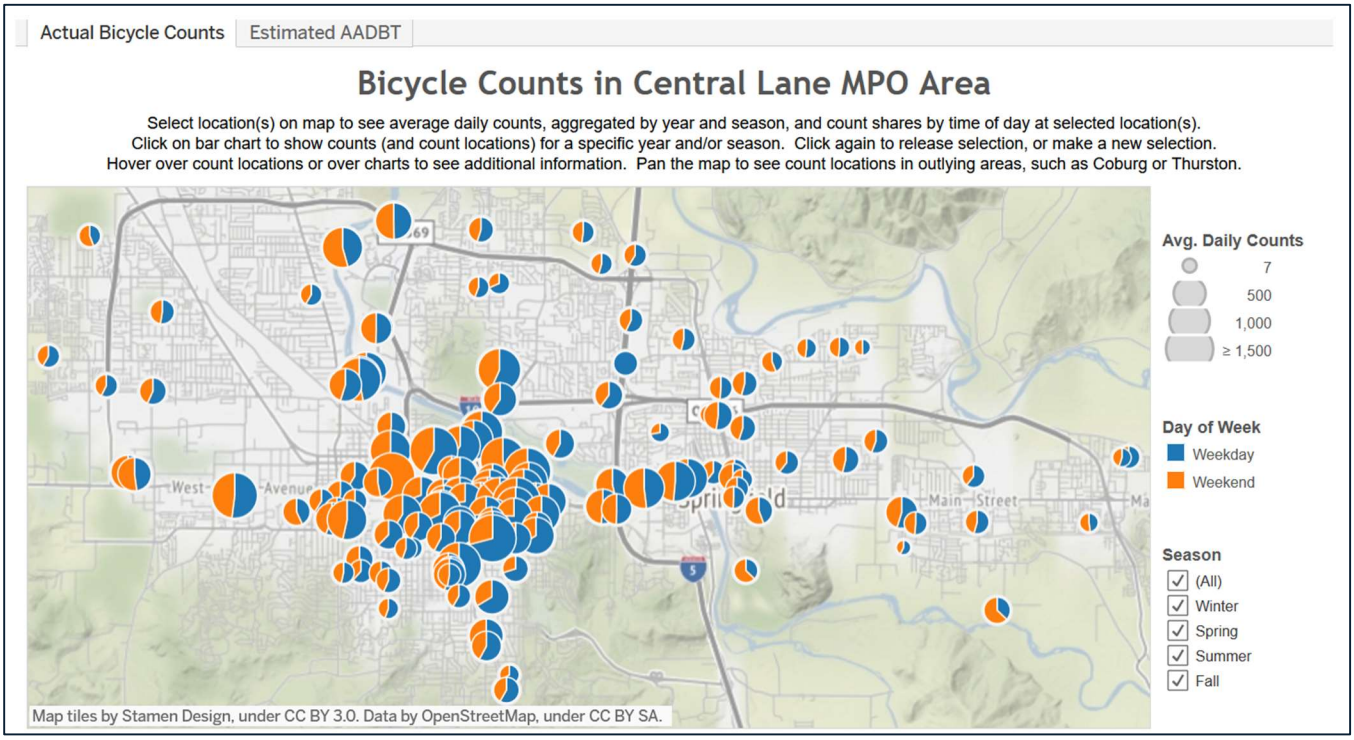
DATA PORTAL

CLMPO maintains a Data Portal which is designed to provide access to transportation-related data as well as tools to help visualize data in useful ways. CLMPO staff are continually evolving, expanding, and improving the Data Portal as presentation styles and needs to analyze various themes emerge. It is an important source of data and of monitoring trends. Themes currently presented in the Portal are:

- Crash data
- Traffic count data
- Commuter data
- Transit data
- Demographic and socioeconomics
- Transportation options

Figure 37 shows a screenshot of the Bicycle Counts Portal.

FIGURE 37. CLMPO DATA PORTAL FOR BICYCLE COUNTS



ACTIVE TRANSPORTATION

The RTP supports the planning, development, and maintenance of inter- and intracity transit, and pedestrian and bicycle facilities as critical components to the regional transportation network and to achieving the regional goals. Lane Transit District and local jurisdictions program projects to provide for better transit, pedestrian, and bicycle facilities throughout the region and connections beyond. Local TSPs support this through policies, programs, and projects. Examples of upcoming projects to provide a more connected bicycle and pedestrian network include these projects in the City of Eugene: Broadway pedestrian enhancements, Amazon and 34th Avenue pedestrian and bicycle bridge, Hilyard extension two-way conversion, Oakway Road at Coburg Road roundabout, Grant Street pedestrian and bicycle bridge, and the Jay Street Bridge.

Reduced reliance on automobiles is dependent on this region developing a connected and adequate bicycle and pedestrian network that gets people where they want to go safely and efficiently and provides easy access to the transit system. The list of regional projects in this chapter contains many projects that focus on completing the region's network of sidewalks, bicycle infrastructure, and paths. The project list also contains Lane Transit District's fiscally constrained list of capital and system enhancement and fleet maintenance projects. Several of Lane Transit District's stops and resources are shared with intercity bus providers including Link Lane and Cascade Point. This RTP supports continued coordination to enhance and enable the transition and connections between modes and transit service providers. The intercity service providers do not currently receive capital or operational funding through the MPO and so are not in included in the regional projects lists.

This RTP recommends a regional planning effort, led by CLMPO, to develop a regional *Active Transportation Plan*. Several needs have been identified through this RTP's public involvement, stakeholder feedback, and internal evaluation of data that must be considered in the development of the region's *Active Transportation Plan*, including:

- Plan for safe connections to destinations beyond the MPO urban area. Of particular interest identified through public involvement is a bicycle/pedestrian connection between Eugene and Coburg. However, other surrounding destinations should also be evaluated.
- Determine a regional nomenclature around naming bicycle and pedestrian facilities and integrate it into both regional and local planning documents. The intent is to eliminate confusion when referring to the type of infrastructure at all stages of its lifecycle: planning, programming, design, and implementation.
- Develop a more robust GIS dataset for bicycle and pedestrian infrastructure. Incomplete bicycle and pedestrian data limits opportunities to analyze and assess performance and completeness of the bicycle and pedestrian network and how it is serving the region. A complete dataset, including sidewalk and bike lane inventories, will open opportunities for enhanced understanding of how the system is performing and where and how to focus investments.
- Integrate this plan with other CLMPO efforts and priorities, including safety and tactical urbanism.
- Address the upstream and downstream measures related to public health and safety. These measures are more qualitative and nuanced in nature and are included as an action item to this RTP. An example of this effort is measuring access to employment and transit via walking and biking through the lens of the quality of the walking and biking facilities.

At the time of this RTP's adoption, Lane County is in the process of creating its first *Bicycle Master Plan* for rural roads and paved paths outside of the Eugene-Springfield urban area. One of its goals is to improve the connectivity of regional bicycling between rural communities and the urban area. A CLMPO *Active Transportation Plan* would continue this work within the urban area.

Funding for this effort is not identified, but this RTP recommends seeking funding opportunities and initiating this effort prior to the next RTP update process so that findings, projects, and data can be incorporated.

TRANSPORTATION OPTIONS/TRANSPORTATION DEMAND MANAGEMENT

Transportation Options (TO), also referred to as Transportation Demand Management (TDM), are strategies to reduce travel demand (specifically that of private single-occupancy vehicles), or to redistribute this demand in space or time, making the region's transportation system more efficient. The RTP supports TO as a strategy to maximize the efficiency of the existing transportation system.

CLMPO has a robust regional TO program collaborating with partners to offer a coordinated menu of tools, encouragement, information, and activities to promote walking, biking, car and vanpooling, telework, and transit use to reduce vehicle trips on the regional transportation system. TO programs are implemented through partnerships with local and state agencies. Current programs include:

- Individualized Marketing Campaigns (branded as Smart Trips in CLMPO region)
- GetThere platform for rideshare and incentive programs
- Micromobility including PeaceHealth Rides bike share and future scooter share
- Transit group pass and youth pass
- Congestion management programs
- Vanpools
- Park and Rides

CLMPO supports SRTS programming in all school districts within the MPO boundary (Bethel School District, Eugene 4J School District, and Springfield School District). SRTS programs aim to create safe, healthy, convenient, and fun opportunities for children to use active transportation for the school commute. These initiatives promote livable, vibrant communities, increase physical activity, and improve unsafe walking, biking, and skating conditions throughout the community. This includes a commitment to providing safe bicycle and pedestrian infrastructure and reducing crash rates in all communities, including those with low-income families and non-English speakers.

COVID-19 conditions have had a dramatic impact on telecommuting rates since restrictions went into place March 2020. It remains to be seen what returning to work post-restrictions will resemble.

TRANSPORTATION SYSTEM MANAGEMENT AND OPERATIONS

Transportation system management and operations (TSMO) are strategies to optimize the performance of the multimodal infrastructure, preserve capacity, and improve the security, safety, and reliability of the transportation system. It includes efforts to operate the multimodal transportation system and activities to manage travel demand, thus crossing over political, modal, and jurisdictional boundaries. It emphasizes the door-to-door experience, regardless of travel mode, and requires agencies to look beyond a project or a corridor and consider the impacts of the entire transportation system.[49] Strategies might include improved bicycle and pedestrian crossings,

[49] https://ops.fhwa.dot.gov/tsmo/

traveler information, ramp management, and mobility on demand. TSMO is identified in the RTP's CMP as a key strategy towards addressing congestion within the region.

Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) leverage technology and support systems to help achieve a safer and more effective, equitable, and multimodal transportation system for the mobility of people, goods, and services. It is also a TSMO strategy. Regional partners have employed ITS for many years, regionally collaborating on effective management of the system. This RTP supports continued use of ITS strategies as an effective tool to achieving the RTP goals at a lower impact and cost than projects that add roadway capacity.

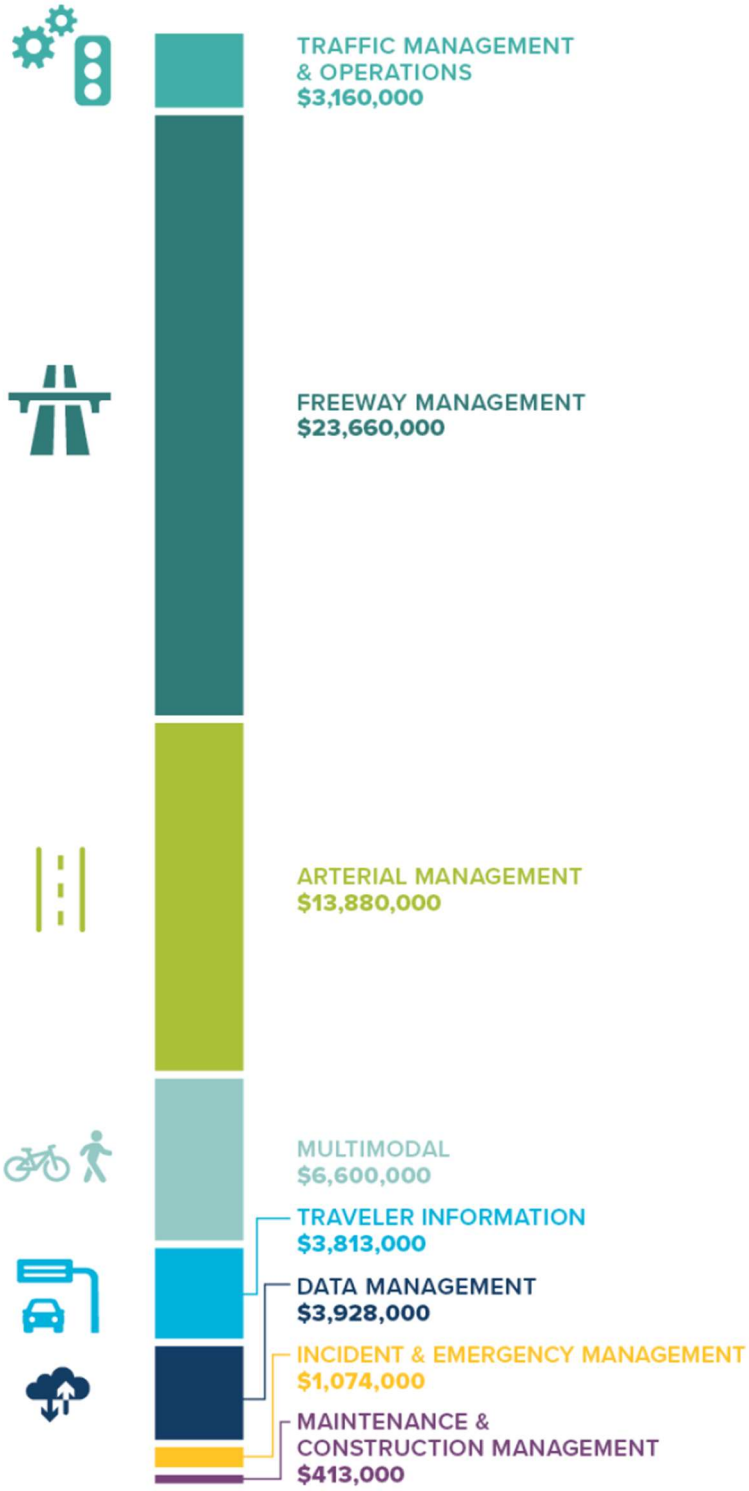
The CLMPO's 2021 ITS Plan was developed consistent with the development of this RTP in partnership with the Cities of Eugene, Springfield, and Coburg, Lane County, and Lane Transit District. ODOT partially funded the ITS Plan and is also a partner. Projects and strategies identified in the ITS Plan are integrated into the RTP project list.

The ITS Plan identifies projects and practices within the following categories:

- Traffic management and operations
- Public transportation management
- Traveler information
- Incident and emergency management
- Maintenance and construction management
- Data management and performance measurement

Figure 38 shows the breakdown of ITS project cost estimates by category.

FIGURE 38. ITS PROJECT COST ESTIMATES BY CATEGORY



The ITS Plan projects were identified to address the needs of the CLMPO area as identified in the Current Conditions and User Needs chapters of the ITS Plan. Figure 39 illustrates the proposed Deployment Plan projects that involve physical infrastructure installation. Not all projects are shown on the map because some projects are:

- System based and involve technology upgrades rather than physical installations, or
- Specific locations have not yet been identified for the deployment of a proposed solution.

The project list, as shown in Table 19, details project number, project title, a brief description, lead agency, illustrative cost, associated strategy, and which ITS Plan goals are addressed.

FIGURE 39. ITS DEPLOYMENT PLAN – SPECIFIC LOCATION BASED PROJECTS

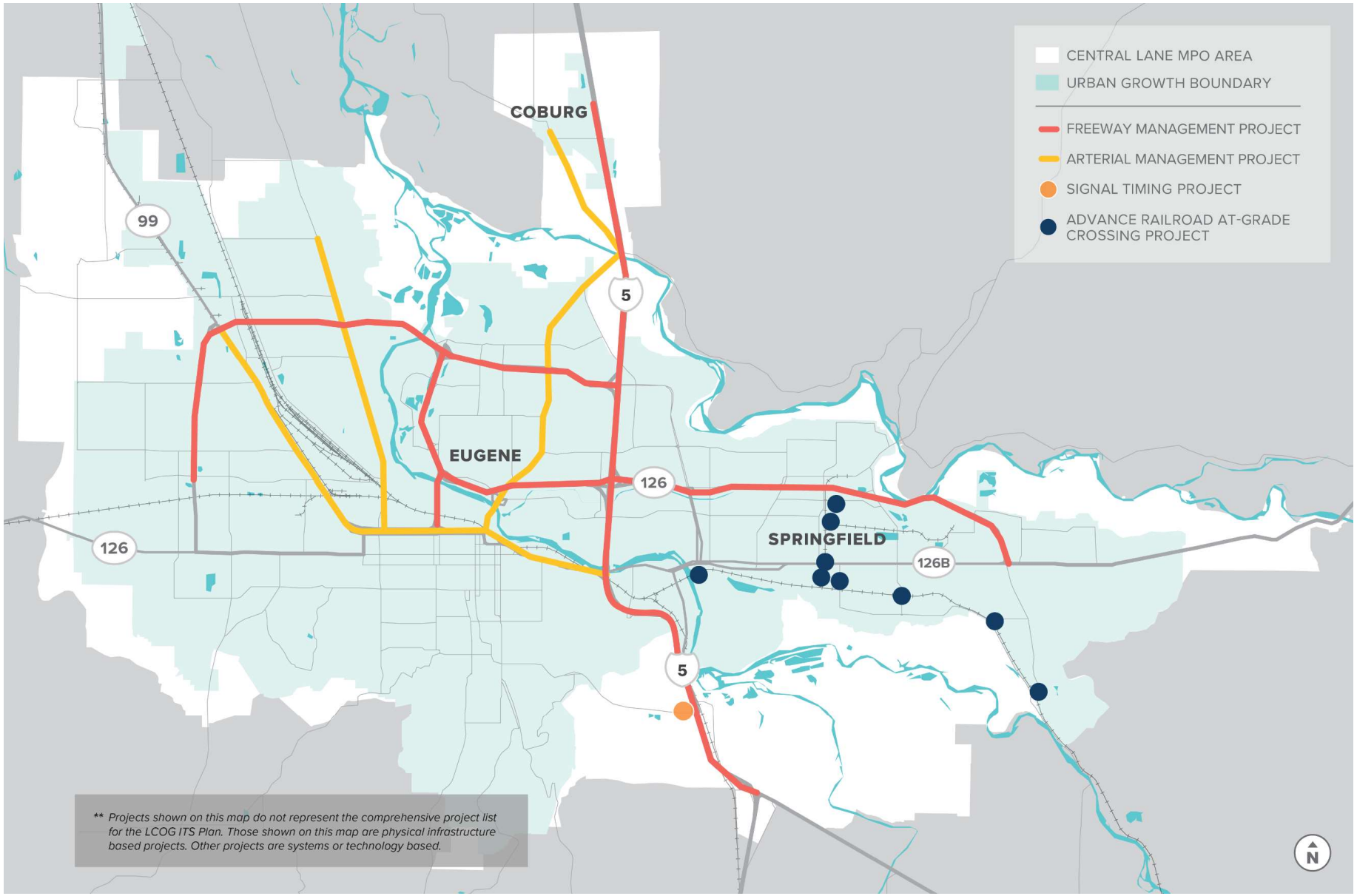


TABLE 19. ITS PLAN PROJECTS

PROJECT NO.	PROJECT TITLE[50]	DESCRIPTION	LEAD AGENCY	PLANNING LEVEL COST	STRATEGY	ITS PLAN GOALS ADDRESSED
FM-01	I-5 ACTIVE TRANSPORTATION MANAGEMENT	Installation of traffic operational systems on I-5 from Goshen to Coburg	ODOT	$3.28M	Freeway Management	1, 2, 3
FM-02	BELTLINE HIGHWAY ACTIVE TRANSPORTATION MANAGEMENT	Installation of traffic operational systems on Beltline Highway from I-5 to Roosevelt Boulevard	ODOT	$5.46M	Freeway Management	1, 2, 3
FM-03	EUGENE-SPRINGFIELD HIGHWAY (OR126) ACTIVE TRANSPORTATION MANAGEMENT	Installation of traffic operational systems on OR126 from I-5 to Main Street (Springfield)	ODOT	$5.24M	Freeway Management	1, 2, 3
FM-04	I-105 ACTIVE TRANSPORTATION MANAGEMENT	Installation of traffic operational systems on I-105 from I-5 to OR99	ODOT	$4.36M	Freeway Management	1, 2, 3
FM-05	DELTA HIGHWAY ACTIVE TRANSPORTATION MANAGEMENT	Installation of traffic operational systems on Delta Highway from I-105 to Beltline Highway	ODOT	$3.48M	Freeway Management	1, 2, 3
AM-01	PACIFIC HIGHWAY (OR99) ARTERIAL ACTIVE TRAFFIC MANAGEMENT SYSTEM	Installation of traffic operational systems on Pacific Highway (OR99) from Beltline Highway to I-5	ODOT	$1.84M	Arterial Corridor Management	1, 2, 4, 5
AM-02	RIVER ROAD ARTERIAL ACTIVE TRAFFIC MANAGEMENT SYSTEM	Installation of traffic operational systems on River Road from OR99 to Irvington Drive/Wilkes Drive	Eugene	$2.08M	Arterial Corridor Management	1, 2, 4, 5

[50] Active Transportation Demand Management is defined by the FHWA as the dynamic management, control, and influence of travel demand, traffic demand, and traffic flow of transportation facilities. Through the use of available tools and assets, traffic flow is managed and traveler behavior is influenced in real-time to achieve operational objectives, such as preventing or delaying breakdown conditions, improving safety, promoting sustainable travel modes, reducing emissions, or maximizing efficiency.

PROJECT NO.	PROJECT TITLE[50]	DESCRIPTION	LEAD AGENCY	PLANNING LEVEL COST	STRATEGY	ITS PLAN GOALS ADDRESSED
AM-03	COBURG ROAD ARTERIAL ACTIVE TRAFFIC MANAGEMENT SYSTEM	Installation of traffic operational systems on Coburg Road from Pearl Street to OR99	Eugene	$2.08M	Arterial Corridor Management	1, 2, 4, 5
TM-01	REGIONAL VIRTUAL TRAFFIC OPERATION CENTER	Develop center-to-center (C2C) communications between agency traffic management centers and emergency operations centers (EOC)	Multi-Agency	$750K	Traffic Management & Operations	2, 3, 4, 5
TM-02	UPGRADE CENTRAL SIGNAL SYSTEM	Upgrade central traffic signal system, and integrate with regional ATMS	Multi-Agency	$1.10M	Traffic Management & Operations	2, 4, 5
TM-03	TRAFFIC SIGNAL OPERATION ENHANCEMENTS	Upgrade legacy traffic signal controllers to ATC signal controllers. Implement advanced signal operations on select corridors	Multi-Agency	$1.50M	Traffic Management & Operations	2, 4
TM-04	30TH AVENUE SIGNAL TIMING	Signal timing coordination at McVay/I-5 Ramp and Eldon Shafer Drive (Lane Community College)	Multi-Agency	$40K	Traffic Management & Operations	2, 5
TM-05	COMMUNICATION NETWORK UPGRADES	Upgrade communication plans to meet future needs of the agencies (microwave/cellular/fiber)	Multi-Agency	$840K	Traffic Management & Operations	4, 5
TM-06	ACTIVE SIGN UPGRADE	Provide communication to existing speed feedback signs/rectangular rapid flashing beacons (RRFB)/school zone flashers	Multi-Agency	$100K	Traffic Management & Operations	2, 4
TM-07	LANE COUNTY COMMUNICATIONS	Implement communications to Lane County signal and Intelligent Transportation System (ITS) devices	Lane County	$1.00M	Traffic Management & Operations	1, 2, 4, 5

PROJECT NO.	PROJECT TITLE[50]	DESCRIPTION	LEAD AGENCY	PLANNING LEVEL COST	STRATEGY	ITS PLAN GOALS ADDRESSED
TM-08	ADVANCE RAILROAD CROSSING WARNING SYSTEMS	Install train detection and warning systems at multiple at-grade crossings	Spring-field	$1.02M	Traffic Management & Operations	1, 2, 3
MM-01	REAL TIME CUSTOMER INFORMATION	Deploy real-time dynamic message signs at key locations such as transit centers and major stops	Lane Transit District	$800K	Multimodal Operations	3, 4
MM-02	ELECTRONIC FARE COLLECTION	Improve and expand the electronic fare collection system on Lane Transit District buses	Lane Transit District	$1.00M	Multimodal Operations	2, 4
MM-03	TRANSIT MANAGEMENT SYSTEM UPGRADE	Replace lifecycle equipment on Lane Transit District buses including AVL, CAD, and APC system	Lane Transit District	$2.00M	Multimodal Operations	2, 4
MM-04	PARATRANSIT SYSTEM UPGRADE	Upgrade technology on paratransit vehicles including AVL and CAD	Lane Transit District	$750K	Multimodal Operations	2, 4
MM-05	TRANSIT SYSTEM SECURITY	Implementation of surveillance video from transit stations and buses back to Lane Transit District dispatch	Lane Transit District	$1.50M	Multimodal Operations	1, 4
MM-06	BUS RAPID TRANSIT EXPANSION	Expand EmX service on an additional corridor in Eugene	Multi-Agency	$2.00M	Multimodal Operations	2, 5
MM-07	TRANSIT SIGNAL PRIORITY	Implement next generation transit signal priority on EmX and major bus routes in Eugene	Eugene	$950K	Multimodal Operations	2, 4, 5
MM-08	FREIGHT MOBILITY	Enhanced detections systems on freight corridors to provide truck priority	Multi-Agency	$450K	Multimodal Operations	1, 2, 4
TI-01	ADVANCED PARKING MANAGEMENT AND INFORMATION	Implement smart parking at major parking facilities – including parking sensors, parking information message boards at key approaches	Multi-Agency	$750K	Traveler Information	2, 3, 4

PROJECT NO.	PROJECT TITLE[50]	DESCRIPTION	LEAD AGENCY	PLANNING LEVEL COST	STRATEGY	ITS PLAN GOALS ADDRESSED
TI-02	ARTERIAL TRAVELER INFORMATION	Integrate travel information from all jurisdictions into real time (travel time/delays). Provide travel time through mobile application and dynamic signs on major arterial corridors.	Multi-Agency	$3.00M	Traveler Information	2, 3, 4, 5
DM-01	PERFORMANCE REPORTING	Develop automated data collection and performance reporting system, including transit performance monitoring	Multi-Agency	$600K	Data Collection & Management	6
DM-02	DATA MANAGEMENT – ATSPM, SAFETY ANALYTICS	Upgrade signal controllers, communication, enhance detection and cameras to collect and archive operational data for analysis tools and safety analytics	Multi-Agency	$2.50M	Data Collection & Management	1, 2, 6
IM-01	INCIDENT MANAGEMENT OPERATIONAL PLANS	Develop transportation-specific incident management operational and evacuation plans that includes protocols for field devices	Multi-Agency	$300K	Incident & Emergency Management	1, 2, 5
IM-02	SPECIAL EVENT MANAGEMENT SYSTEMS	Management of special events to include signal timing plans, portable dynamic message signs, parking management and interface with U of O operation center	Multi-Agency	$750K	Incident & Emergency Management	2, 3, 5
MC-01	MAINTENANCE, CONSTRUCTION, AND WORK ZONE MANAGEMENT	Develop an information system that contains details about regionwide maintenance and construction activities including work zone management and monitoring	Multi-Agency	$850K	Maintenance & Construction Management	2, 3, 5

EMERGING TRANSPORTATION TECHNOLOGIES

Transportation services are poised for profound changes over the 25-year planning horizon with the emergence of new technologies that bring automation to transportation and lead to growth in transportation services being provided by autonomous vehicles. At this time, it is not yet clear how automation will impact the transportation sector. The RTP supports equipment and technology investments which promote equitable and safe urban mobility solutions.

CONGESTION MANAGEMENT PROCESS

CLMPO is a designated TMA because it has a population greater than 200,000. In addition to meeting all the specified metropolitan planning process requirements, MPOs representing TMAs must meet additional requirements, including a CMP that provides for the effective management of new and existing facilities through the use of travel demand reduction and operational management strategies. The CMP serves as the process for identifying deficient regional travel corridors, for evaluating non-SOV alternatives to address congestion, and for managing the performance of the system. An overview of the CLMPO CMP is provided in Chapter 2.

The CMP Toolbox of Strategies includes the following categories:

1. TO and TDM
2. TSMO and ITS
3. Transit operational improvements
4. Freight and goods movements
5. Roadway capacity improvements

The region prioritizes strategies from the first four categories.

TRANSPORTATION PLANNING AND THE ENVIRONMENT

The interrelationships between transportation planning, project development, and both natural and human environments are acknowledged in federal, state, regional, and local policies and practices. This RTP's goals include ***Goal 3 Healthy People and Environment:*** *The regional transportation system provides safe and comfortable travel options that support active and healthy living and protect and preserve biological, water, cultural and historic resources. Lower-polluting transportation options are encouraged, and transportation greenhouse gas emissions are reduced.*

A balanced transportation system meeting regional travel needs should balance with the need to protect the environment and provide for a healthy community. Environmental considerations and stewardship include air quality, climate change, stormwater, noise, curbing urban sprawl, habitat, cultural resource protection, historic preservation, environmental justice, and active living.

Federal legislation requires RTPs to discuss environmental mitigation activities[51] 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 (23 CFR §450.324(f)(10)). As transportation projects are developed, environmental analyses are carried out to ensure that identified environmental impacts can be avoided, minimized, and/or mitigated. More detailed information on the laws and guidance that pertain to consideration of the environment and environmental mitigation in the regional transportation planning processes can be found in Appendix H Environmental Analysis of this document. Included in the Environmental Analysis is an overview of how environmental elements are addressed in the CLMPO region, potential environmental mitigation measures, and mapped data that can be used in the integration of environmental and transportation decision-making.

A sunset near the transit center at Centennial Boulevard.

ENVIRONMENTAL QUALITY

Air Quality: The Region's Air Quality Attainment Status

In August 1987, the Eugene-Springfield area was designated by US-EPA as a PM_{10} non-attainment area due to measured violations of the 24-hour PM_{10} standard (52 FR 29383). In August 1994, US-EPA approved the attainment plan (State Implementation Plan (SIP)) classifying the area as 'moderate' (59 FR 43483 August 24, 1994). Smoke from residential wood heating was determined to be the major contributor. The establishment of a mandatory home wood heating curtailment program was identified as a remedy to reduce wood burning emissions during stagnant air episodes in winter. Continued enforcement of existing controls on local industrial sources was also mandated. The EPA also approved PM_{10} control strategies in the SIP as Reasonably Available Control Technology and Reasonably Available Control Measures (RACT/RACM). No transportation control measures (TCM)

[51] Environmental mitigation strategies are defined in 23 CFR §450.104 as strategies, policies, programs, and actions that, over time, will serve to avoid, minimize, rectify, reduce, or eliminate impacts to environmental resources associated with the implementation of a long-range statewide transportation plan or metropolitan transportation plan.

were identified, and no transportation emissions budget was determined. US-EPA determined that the area was exempted from regional emissions analysis for PM_{10} but that project level conformity requirements continued to apply.

In January 2012, Lane Regional Air Protection Agency (LRAPA) submitted a revision to the Oregon PM_{10} SIP demonstrating attainment and describing a 10-year Limited Maintenance Plan (LMP). US-EPA approved the plan, and the area was re-designated as in attainment effective June 10, 2013 (78 FR 21547). The final LMP is included in Appendix I. Per the final LMP, the Eugene-Springfield area met the following EPA criteria to qualify for an LMP:

1. The area should attain the NAAQS.
2. The average 24-hour PM_{10} design value for the area based upon recent 5 years of data should not exceed 98 ug/m^3 (micrograms per cubic meter) and the annual design value should not exceed 40 ug/m^3. (The annual PM_{10} NAAQS was revoked by the EPA on December 18, 2006.)
3. The area should expect only limited growth in on-road motor vehicle PM_{10} emissions.

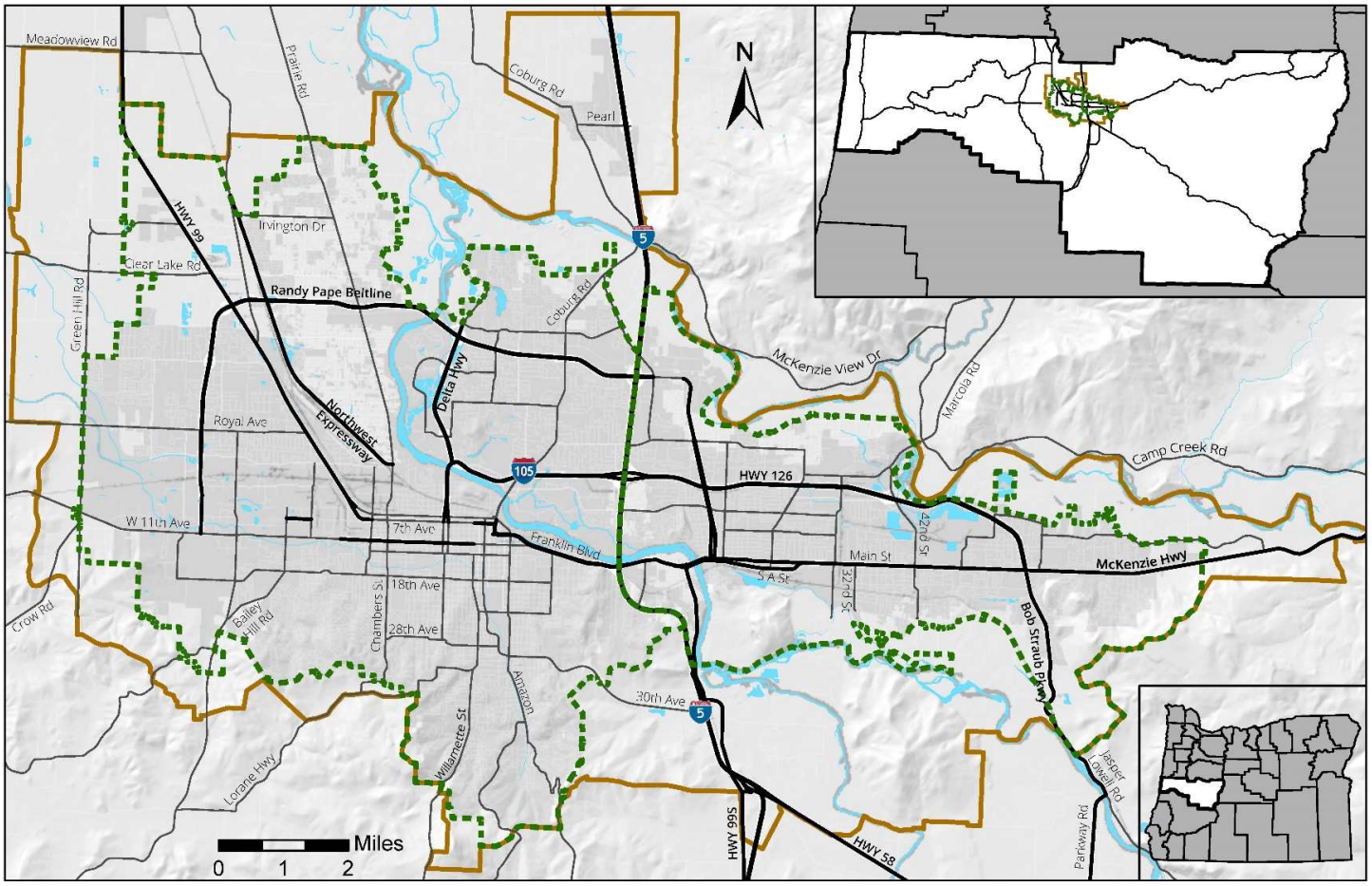
The LMP identified that the area's 24-hour PM_{10} design value of 66 µg/m^3 (2006-2008) was well below the LMP qualifying critical design value of 98 µg/m^3. The inventory analysis also demonstrated that only limited growth in PM_{10} emissions from motor vehicles was expected and that these emissions were unlikely to cause a future violation. No TCMs were identified, and no transportation budget was established. There are no contingency measures that involve transportation sources.

With the approval of the LMP, the area continues to be exempt from performing a regional emissions analysis for PM_{10} and there is no 'budget' test. The area, however, must meet project level conformity analyses and must also respond to transportation conformity criteria as specified in 78 FR 21547 and, in particular, in 40 CFR 93.109(e).

The 2045 RTP Air Quality Conformity Determination is included as Appendix I. It provides additional information on air quality in the region, a history of the region's air quality status, and planning-level indication of project level conformity analysis requirements. It finds that, "The CLMPO area currently meets all federal clean air standards. PM_{10} levels remain low, below the LMP threshold. Of the other criteria pollutants that are monitored, carbon monoxide levels are extremely low and show no sign of rebounding. The area is in compliance with the standards for ozone and particle pollution 2.5 microns and smaller, though vigilance is needed to ensure that this remains so. Pursuant to 40 CFR Section 93 this conformity determination for the CLMPO 2045 RTP meets all the requirements under the conformity rule."

The CLMPO Air Quality Maintenance Area is shown inFigure 40.

FIGURE 40. CLMPO AIR QUALITY MAINTENANCE AREA



Water Quality

Transportation projects must address water quality impacts. Water quality is a significant issue in the Pacific Northwest. The transportation system—including paved streets and sidewalks, parking lots, and driveways—creates a vast network of impervious surfaces in the urban landscape. Urban stormwater runoff from impervious surfaces can carry heavy metals and petroleum products directly into nearby streams and waterways, impairing surface and groundwater quality and damaging sensitive aquatic ecosystems. Stormwater systems in the CLMPO area convey water from streets and properties via a system of catch basins, pipes, ditches, and waterways that drain directly into the Willamette River and its tributaries, such as Amazon Creek in Eugene and the McKenzie River in Springfield.[52] Transportation projects often include measures to mitigate for the construction of impervious surfaces. Bioswales, street trees, and other forms of green infrastructure[53] are becoming part of the design for many transportation projects.

Transportation system impacts on water quality are addressed in more detail in Appendix H Environmental Analysis and Appendix C Planning Factor 9.

RESILIENCE AND RELIABILITY

The 2015 FAST Act introduced a new planning factor that MPOs must consider during the transportation planning process. Specifically, Planning Factor 9 requires MPOs to address how they will "improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation" (23 CFR 450.306(b)(9)). Additionally, MPOs should consult with agencies responsible for natural hazard mitigation and risk reduction in the development of the metropolitan transportation plan (23 CFR 450.316(b)). The plan must also assess capital investments and explore strategies to reduce the vulnerability of infrastructure to natural disasters (23 CFR 450.324(g)(7)). Appendix C Factor 9 White Paper explores integration of Planning Factor 9 into the RTP. This analysis will serve as a resource for CLMPO's continued commitment to planning for a resilient and reliable transportation system.

The following sub-sections explore greenhouse gas emissions, seismic resilience, and stormwater as they relate to the transportation system. The Factor 9 White Paper also focuses on other hazardous threats to the CLMPO transportation system including drought, extreme weather, geomagnetic disturbance, landslides, riverine flooding, volcanic hazards, and "non-natural" hazards. These threats are consistent with those identified in the Eugene-Springfield and Lane County *Multi-Jurisdictional Natural Hazard Mitigation Plans*.

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[52] The Federal Clean Water Act of 1972 prohibits any release of pollutants into waters of the United States without a National Pollutant Discharge Elimination System (NPDES) Permit, which regulates the amount of certain pollutants permissible in a discharge. Large- and medium-sized cities with municipal separate stormwater sewer systems (MS4s) that discharge untreated stormwater into local waterbodies—including Eugene and Springfield—are required to obtain NPDES Permits.

[53] *Green infrastructure* is the range of measures that use plant or soil systems, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to store, infiltrate, or evapotranspirate stormwater and reduce flows to sewer systems or to surface waters.

Greenhouse Gas (GHG) Emissions

The state has taken steps toward addressing greenhouse gas emissions as they relate directly to transportation. ORS 468A.205 set a goal of achieving GHG levels at least 75% below 1990 levels by 2050 and directed "state and local governments, businesses, nonprofit organizations, and individual residents to prepare for the effects of global warming and by doing so, prevent and reduce the social, economic, and environmental effects of global warming." House Bill 2001 (2009), also known as the Jobs and Transportation Act, directed both the Eugene-Springfield and the Portland Metropolitan Areas to conduct local scenario planning to explore how to meet emissions reduction targets. The state-set target for CLMPO was a 20% reduction below 2005 levels by 2035. The bill required CLMPO to consider the target in its scenario planning, not to adopt it. The results of that effort are discussed below.

The Oregon Sustainable Transportation Initiative (OSTI), a partnership between ODOT and the Department of Land Conservation and Development (DLCD), leads the implementation of a statewide effort to reduce GHG emissions from transportation, which accounts for 31% of emissions in Oregon. Senate Bill 1059 (2010) directed OSTI to develop the Oregon Statewide Transportation Strategy (STS), a two-year scenario planning process to identify short- and long-term strategies to reduce emissions, which was adopted by the Oregon Transportation Commission (OTC) on March 20, 2013. The STS identifies 18 strategies, with 133 elements in six categories: vehicle and engine technology advancements, fuel technology advancements, enhanced system and operations performance, transportation options, efficient land use, and pricing and funding mechanisms.

The state has recently taken actions to implement and strengthen statewide GHG emissions reductions targets. In September 2019, Governor Brown directed ODOT, DLCD, the Department of Energy, and the Department of Environmental Quality to form a four-agency working group to create a work plan for implementing STS. In March 2020, Executive Order 20-04 revised Oregon's previous targets to a 45% reduction below 1990 levels by 2035 and an 80% reduction below 1990 levels by 2050 (up from 75% by 2050 established by ORS 468A.205). In June 2020, ODOT formed a new Climate Office to implement the Executive Order. An initial draft of the four-agency working group's two-year work plan, called *Every Mile Counts*, identifies three key objectives and several priority actions that will help achieve the revised goals.

Table 20 outlines planning efforts recently undertaken in the CLMPO area that relate directly to regional resilience. Several of these existing efforts are discussed in further detail below.

TABLE 20. CLMPO EXISTING EFFORTS

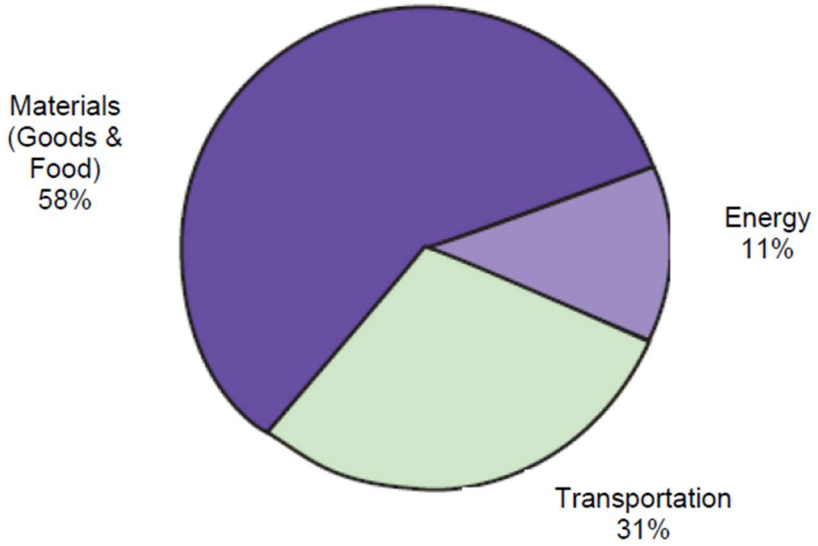
PLANNING EFFORT	DESCRIPTION
EUGENE-SPRINGFIELD METROPOLITAN REGION GREENHOUSE GAS INVENTORY (2010)	Identifies major sources of greenhouse gas emissions in the Eugene-Springfield area
REGIONAL TRANSPORTATION OPTIONS PLAN (2014)	Recommends core transportation options programs and services
CENTRAL LANE SCENARIO PLANNING (2015)	Explores how to meet the DLCD-set GHG emissions reduction target of 20% below 2005 levels by 2035 in the Eugene-Springfield Metropolitan Region
CENTRAL LANE SCENARIO PLANNING HEALTH IMPACT ASSESSMENT (2015)	Documents regional health impacts and related cost savings to anticipated reductions in GHG emissions associated with policies under consideration as part of the scenario planning process
CLMPO STRATEGIC ASSESSMENT (UNDERWAY)	Builds on the results of the Central Lane Scenario Planning work and the *Eugene Transportation System Plan* scenario findings to test and quantify what regional policies, programs, and investment actions, grouped to make scenarios, will allow the MPO to achieve its long range local and State planning vision and goals; intended to guide the policy development and investment strategy options of the RTP update

Eugene-Springfield Metropolitan Region Greenhouse Gas Inventory (2010)

In 2010, CLMPO conducted a Greenhouse Gas Inventory for the Eugene-Springfield Metropolitan Area. The region is responsible for an estimated 3.2 million metric tons of GHG emissions per year, which accounts for 4.6% of total state emissions.[54] The inventory found that the average Eugene household emits 31.9 metric tons of carbon dioxide equivalent annually, a figure that is lower than for households of the Portland Metro area and the United States. The report attributes relatively lower household footprints to three main factors: abundant sources of hydropower used for clean energy, lower per capita vehicle travel due to local planning efforts to reduce sprawl and encourage transportation options, and lower estimated consumption of goods attributable to lower incomes. The inventory groups emissions sources into three broad categories: Transportation, Materials, Energy (Figure 41).

[54] Note: The inventory looked at emissions between July 2005 and June 2006.

FIGURE 41. MAJOR SOURCES OF EUGENE-SPRINGFIELD GREENHOUSE GAS EMISSIONS



Source: Central Lane Metropolitan Planning Organization, Greenhouse Gas Inventory.

The inventory found that a majority of transportation-related emissions were the result of passenger transportation and local freight:

- Local passenger transport, including all cars and light trucks in the region – 17%
- Other passenger transport, including long-distance passenger travel by air, inter-city rail, inter-city bus, cars, and light trucks – 12.4%
- Local freight, including vehicles weighing more than 10,000 pounds – 1.3%
- Transit, including fuel consumption for buses and other transit fleet vehicles – 0.3%

Central Lane Scenario Planning (2015)

The 2009 Jobs and Transportation Act (JTA) required the CLMPO area to conduct local scenario planning to explore how to meet a DLCD-set GHG emissions reduction target of 20% below 2005 levels by 2035. CLMPO's Scenario Planning effort concluded in 2015. Though the major goal was GHG reduction, CLMPO's plan took a broader approach that also incorporated social equity, public health, and economic health (Table 21). This planning effort concluded that under the direction of current policy (the Reference Scenario), the region would only see a 3% reduction in per capita GHG emissions from 2005 levels by 2035. The region will not meet the 75% target without a mix of strategies—the Preferred Scenario consists of a balanced approach toward investment in seven areas: active transport, fleet and fuels, transit, pricing, parking management, education and marketing, and roads. According to the 2015 report, the Preferred Scenario will require new sources of revenue to fully implement.[55] CLMPO was not required to adopt a Preferred Scenario as part of this process.

[55] Central Lane Metropolitan Planning Organization, *Central Lane Scenario Planning*.

TABLE 21. CLMPO SCENARIO PLANNING GOALS ABOVE AND BEYOND GHG REDUCTIONS

GOAL	CRITERIA
FOSTER ECONOMIC VITALITY	• Driving costs as a percentage of household income • Average household income by housing type • Average parking costs • Value of time lost to congestion
IMPROVE PUBLIC HEALTH	• Physical activity per capita • Health benefits from increased walking and biking • Cost savings due to reduced disease burden • Change in the number of fatal or severe injury accidents
ENHANCE EQUITY	• Driving costs as a percentage of household income • Average household income by housing type

Central Lane Scenario Planning Health Impact Assessment (2015)

As part of the scenario planning effort in 2015, CLMPO partnered with Lane County Public Health to conduct a Health Impact Assessment (HIA) to determine regional health impacts and related cost savings of anticipated reductions in GHG emissions associated with the policies under consideration. The strategies espoused by the Scenario Planning process focus on reducing Vehicle Miles Traveled (VMT) as the primary mechanism through which CLMPO can affect substantive changes in GHG emissions; improving fuel economy of the vehicle fleet and reducing the carbon intensity of fuels used, though important strategies, are generally outside the control of the MPO.

Climate change presents a threat to human health and well-being through severe weather, wildfire, air quality, and food-, water-, and vector-born illness, so human health is an important co-benefit of GHG emissions reductions. The HIA found that the strategies and investments considered through the Scenario Planning process could prevent 20 premature deaths per year and save the region over $30 million in health care costs. Active transport would have the largest impact on health – 95% of deaths avoided and 99% of illnesses avoided were associated with increased physical activity. The study concluded that strategies and investments that increase active transportation, and therefore physical activity, are key to maximizing public health benefits.

Seismic Resilience

The Pacific Northwest and the State of Oregon are vulnerable to seismic hazards from four sources: shallow crustal earthquakes, deep intraplate earthquakes resulting from the subduction of the Juan de Fuca Plate beneath the North American Plate, very large subduction zone earthquakes that occur along the boundary between the Juan De Fuca and North American Plates, and volcanic activity. Oregon is subject to far less frequent, but bigger and potentially more damaging earthquakes than its seismically active neighbors, Washington and California. In geologic terms, Oregon is a mirror of northern Japan, where the 9.0 Tohoku earthquake and subsequent tsunami caused widespread devastation and sparked the Fukushima Daiichi nuclear disaster in 2011. Oregon is located along what is known as the "Ring of Fire," an arc of subduction zones in the Pacific Ocean marked by frequent and often catastrophic seismic activity. The Pacific Plate is moving east and subducting under the coasts of Northern California, Oregon, Washington, and Southern British Columbia along a 620-mile fault known as the Cascadia Subduction Zone (CSZ).

There is a clear and imminent threat from the CSZ in Oregon. According to the *Eugene-Springfield Area Multi-Jurisdictional Natural Hazard Mitigation Plan*, the odds of a powerful CSZ earthquake with magnitude 8.0 or greater in the next 50 years are roughly one in three. Such an earthquake will cause several minutes of severe ground shaking, large tsunamis, and widespread damage. In the past 10,000 years, the entire fault has ruptured (i.e. moved) with a magnitude 9.0 or greater 20 times, three quarters of the fault has ruptured with a magnitude 8.5-8.8 two to three times, and just the Southern portion has ruptured with a magnitude 7.6-8.5 nineteen times.[56] The most recent rupture along the CSZ fault occurred in January 1700 and caused tsunamis that hit the coasts of Oregon, Washington, and Japan. These earthquakes strike at variable time intervals, but the 320-year span since the last event is among the largest. According to the *Oregon Resilience Plan*, "there is no scientific doubt that another great subduction earthquake will strike the Pacific Northwest; the questions now are how soon, how large, and how destructive that earthquake will be." [57]

As a next step in planning for seismic resilience, this RTP recommends following the lead of Portland Metro, which has designated a network of regional Emergency Transportation Routes (ETRs)—priority routes used to facilitate life-saving response activities following an emergency—to complement the statewide system of Lifeline Routes. In 2019, upon recommendation in its 2018 RTP, Portland Metro partnered with the Regional Disaster Planning Organization to update its ETRs, which were designated in 1996 and last updated in 2006. Funding for the project came from FEMA's (Federal Emergency Management Agency) Urban Areas Security Initiative (UASI) grant, which funds projects that enhance regional preparedness and expand regional collaboration in major metropolitan areas.[58]

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[56] Cities of Eugene and Springfield, *Natural Hazards Mitigation Plan*.

[57] Oregon Seismic Safety Policy Advisory Commission, *The Oregon Resilience Plan*, 4.

[58] Eligibility for the UASI program is determined through an analysis of relative risk of terrorism faced by the 100 most populous Metropolitan Statistical Areas in the United States. Per the 2021 UASI Program Guidance, the Portland Area is the only eligible urban area in Oregon.

There are four types of ETRs:

1. **Local Emergency Response Streets** are a network of streets in a single jurisdiction that facilitate ordinary fire, police, and medical emergencies.
2. **Local Emergency Transportation Routes** are pre-designated routes used during a large-scale event in the initial response phase and early recovery to transport first responders, fuel, supplies, and patients. Local ETRs connect regional nodes to destinations of local importance (e.g. staging areas, essential infrastructure, and intermodal transfer points) and add redundancy to the Tier 2 and 3 Statewide Lifeline Routes.
3. **Regional Emergency Transportation Routes** are pre-designated routes that move first responders and supplies across jurisdictional boundaries among regional nodes and connect population centers, critical infrastructure, and services of regional importance. Regional ETRs also connect Statewide Lifeline Routes and local ETRs.
4. **Statewide Lifeline Routes** are state-owned roadways identified by ODOT as critical to emergency response and recovery activity. Lifeline Routes connect regions of statewide importance; as described above, there are a few key north-south and east-west routes.

As an implementation strategy, this RTP recommends, engaging in a similar planning effort, led by CLMPO, to identify and prioritize a regionally accepted and catalogued network of Regional ETRs that provide connectivity to critical infrastructure, essential facilities, Statewide Lifeline Routes, population centers, and vulnerable communities following Metro's model.

Stormwater Impact to the Transportation System

Effective stormwater management is critical for mitigating issues related to both water quality and quantity. Roads, paved trails, parking lots, and other impervious surfaces ubiquitous to the urban landscape can alter natural hydrology and prevent water from absorbing into the ground, and instead direct large volumes of runoff into nearby streams, rivers, and lakes and/or wastewater treatment plants, pipelines, and reservoirs. Stormwater runoff carries pollutants, nutrients, and bacteria that can impair the quality of nearby waterbodies and harm wildlife. Excess stormwater during a heavy rain event can also collect in lower-lying areas and, without sufficient pervious ground to absorb it, can cause flooding that poses a direct risk to human life and property. An increase in the frequency of heavy rainfall associated with climate change will exacerbate issues relating to street flooding and increase the need for effective stormwater management.

The primary threat stormwater poses to the transportation system is from street flooding. Inundation and washouts from heavy rainfall can block roads, damage assets, and interrupt utilities, while debris buildup can block drainage systems, which further contributes to flooding. Flooding can cause long-term damage to infrastructure through scour and erosion. Street flooding can also cause damage to property, and, in extreme cases, flash flooding can be life threatening.

The Eugene-Springfield Area and Lane County *Multi-Jurisdictional Natural Hazards Mitigation Plans* each recommend transportation-related strategies to mitigate stormwater flooding (Table 22).

TABLE 22. SELECTED TRANSPORTATION-RELATED STRATEGIES

GOAL	CRITERIA	PLAN
STORMWATER IMPROVEMENTS	Projects include culvert replacements and streambank stabilization. Using prioritization criteria, the highest priority stormwater capital projects are selected for inclusion in the Cities' Capital Improvement Programs. Projects prioritization criteria include whether a project addresses a potential risk to life or property (e.g. flooding), and whether it resolves an ongoing repetitive issue.	Eugene-Springfield Area Multi-Jurisdictional Natural Hazards Mitigation Plan
UPGRADE CULVERTS AND STORMWATER DRAINAGE SYSTEMS	For locations with repetitive flooding, flood damage, or road closures, determine and implement mitigation measures such as upsizing culverts or storm water drainage ditches.	Lane County Multi-Jurisdictional Natural Hazard Mitigation Plan
CONSTRUCTION OF STORMWATER DETENTION / RETENTION PONDS	Reduce localized flooding, decrease damage to road infrastructure, and increase natural watershed potential.	Lane County Multi-Jurisdictional Natural Hazard Mitigation Plan

Green streets that incorporate green infrastructure into their design can help mitigate the negative effects of stormwater runoff generated by the transportation system. Green infrastructure uses both natural and engineered features that replicate natural systems to help slow, infiltrate, and filter stormwater runoff. Examples include bioretention cells, rain gardens, bioswales, street trees, and natural features in the landscape, such as wetlands. Green infrastructure has numerous co-benefits that may help achieve other RTP goals. Figure 42 provides examples of co-benefits as summarized in Portland Metro's RTP. Since it is a table from the Metro RTP, it does not have a one-for-one cross walk with goals from the CLMPO RTP but is intended to provide context for the co-benefits of green infrastructure. Policies that promote the use of green infrastructure as a means to address stormwater management throughout the region could be considered.

FIGURE 42. EXAMPLES OF HOW GREEN INFRASTRUCTURE CAN HELP ACHEIVE GOALS

RTP Goal	Examples of how green Infrastrucutre can help achieve RTP goals
Vibrant Communities	Green infrastructure, including trails, parks, street trees, vegetation, and bioswales, contribute to community beautification and public health by connecting people with nature in their daily lives.
Shared Prosperity	Green infrastructure can promote economic growth as a valued public amenity, create construction and maintenance jobs, add to property value, support walkable and bikeable communities, businesses and commercial districts, and lower the costs associated with climate change.
Transportation Choices	Green streets can promote active travel and access to transit by providing enjoyable routes that are shaded and buffered from traffic.
Reliability and Efficiency	Green infrastructure treatments, such as access management and medians with bioswales, can be designed to support reliability and efficiency by reducing crashes and conflicting movements.
Safety and security	Street trees and other green infrastructure can help calm traffic to desired speeds, provide welcoming places that increase security, and improve resiliency and reduce impacts of major storm events.
Healthy Environment	Green infrastructure can enhance and protect the natural environment by supporting clean air and water, filtering stormwater runoff, reducing erosion, protecting, creating and connecting habitat for birds, fish and other wildlife.
Healthy People	Green infrastructure can reduce water, air, noise and light pollution, encourage active lifestyles and link people to trails, parks and nature that enhance human health and well-being.
Climate Leadership	Trees and green infrastructure can support climate adaptation by cooling streets, parking lots and buildings, better managing stormwater and reducing the urban heat island effect. Trees and vegetation can be managed to sequester greenhouse gases to help mitigate climate change.
Equitable Transportation	Clean air and water and access to nature can be improved and habitat can be preserved and enhanced when green infrastructure is provided in historically marginalized communities.
Fiscal stewardship	Protecting the environment and natural resources today can save money for the future and reduce infrastructure construction and maintenance costs.
Transparency and Accontability	All stakeholders can be represented, including those that cannot speak for themselves – wildlife and the natural environment. Performance-based planning includes considering environmental effects throughout the planning process.

Source: Portland Metro, 2018 Regional Transportation Plan, 3-53.

REGIONAL SYSTEM CAPACITY IMPROVEMENTS

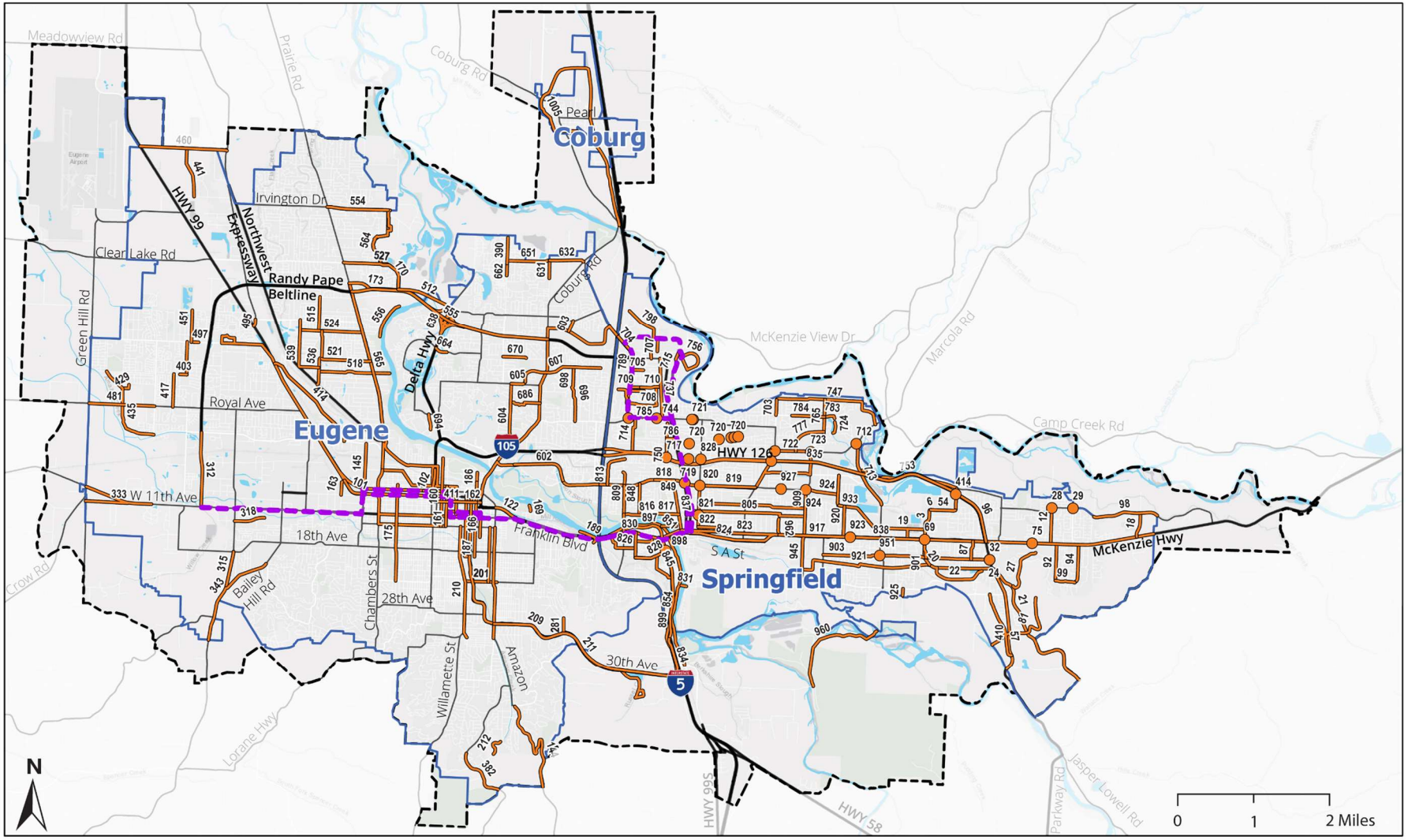
The following figures and tables show the location of transportation capital projects identified through the metropolitan planning process to address capacity deficiencies for all modes as well as solutions to make for a safer transportation system for the mobility of people and freight. All transportation modes are addressed and, holistically, the project list is intended to achieve RTP goals.

Figure 43, Figure 44, and Figure 45 provide the geographic context for the RTP's financially constrained projects for which a location has already been determined, and Table 23, Table 24, Table 25, Table 26, Table 27, Table 28, Table 29, Table 30, Table 31, Table 32, Table 33, Table 34, Table 35, and Table 36 present the RTP's financially constrained project list. Each project is identified by its name, geographic limits, description, primary jurisdiction, estimated cost in 2021 dollars, estimated year of construction within a five-year window, estimated year of construction cost representing the five-year window, project length, RTP number, and federal functional class. Cost estimates are from partnering agencies' planning documents and are planning level estimates. They have been inflated to current year.

Table 27 is a project list called Urban Standards and contains projects that will build roads located in the MPO consistent with their functional class design standards. In most cases, but not all, these projects are on Lane County roads that were traditionally built to serve rural needs and are a two-lane roadway similar to Game Farm Road in Eugene (shown in the photo to the right). The ultimate designs for urban standards projects are intended to respond to adjacent increases in densities and multi-modal access needs; project descriptions include constructing sidewalks, curbs, gutters, and bike lanes where applicable.

Appendix J contains the RTP's illustrative project list which includes projects that cannot be implemented with available funds. If additional funds are identified, projects from this list may be amended into the financially constrained list.

FIGURE 43. FINANCIALLY CONSTRAINED RTP PROJECT LIST

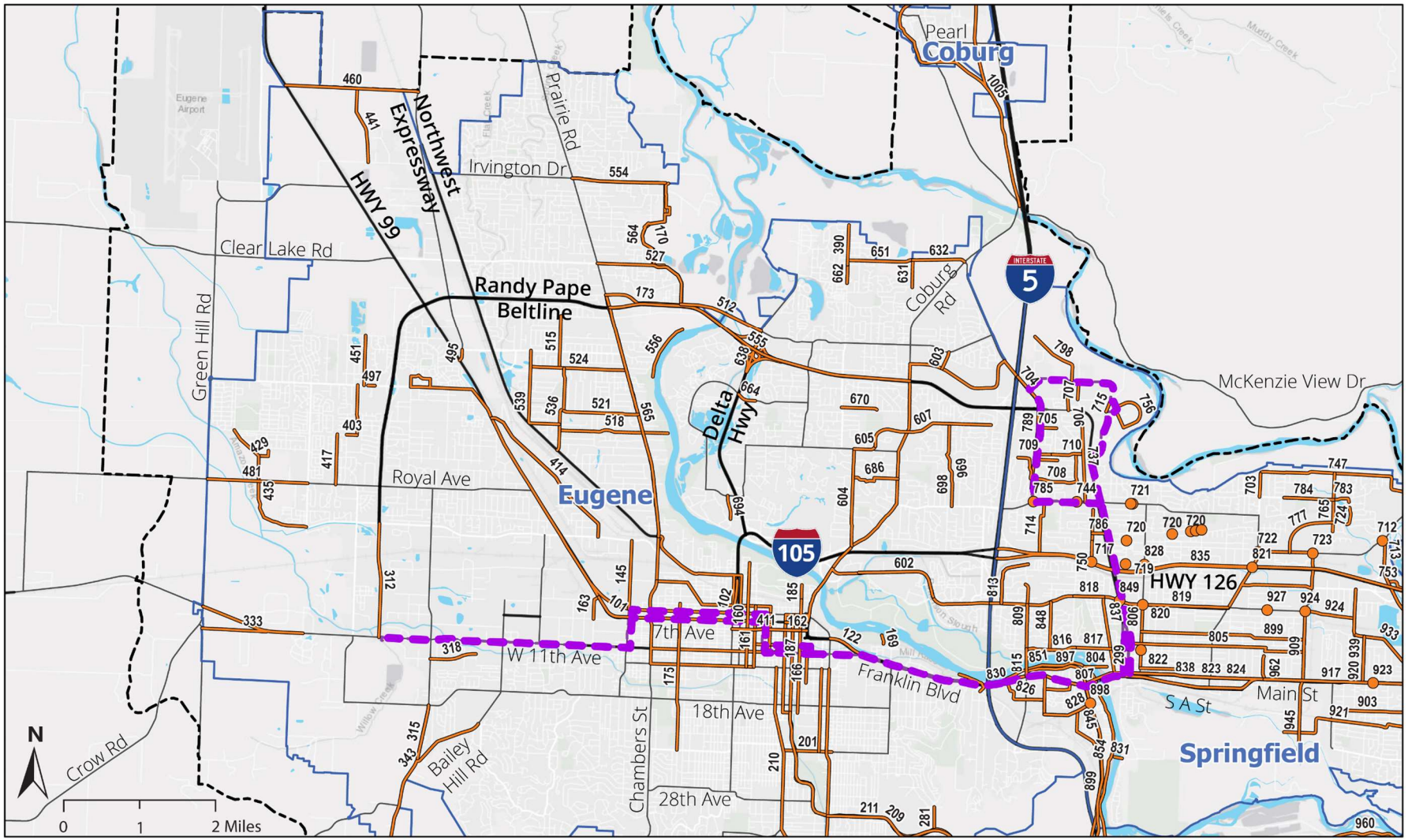


2045 RTP Financially Constrained Projects

- Urban Growth Boundaries
- MPO Area Boundary
- Water Area
- Bus Rapid Transit
- Constrained RTP Projects
- Constrained RTP Projects
- Highways
- Arterial Roads

This map was created by the Lane Council of Governments GIS Servicesfor the 2045 Regional Transporation Plan. The information on this map was derived from digital databases on Lane Council of Governments' regional geographic information system. Care was taken in the creation of this map, but it is provided 'as is'. LCOG cannot accept any responsibility for errors, omissions, or positional accuracy in the digital data or the underlying records. There are no warranties, expressed or implied, accompanying this product.However, notification of any errors will be appreciated.

FIGURE 44. FINANCIALLY CONSTRAINED PROJECT LIST - ENLARGED AREA WEST



2045 RTP Financially Constrained Projects

- Urban Growth Boundaries
- MPO Area Boundary
- Water Area
- Bus Rapid Transit
- Constrained RTP Projects
- Constrained RTP Projects
- Highways
- Arterial Roads

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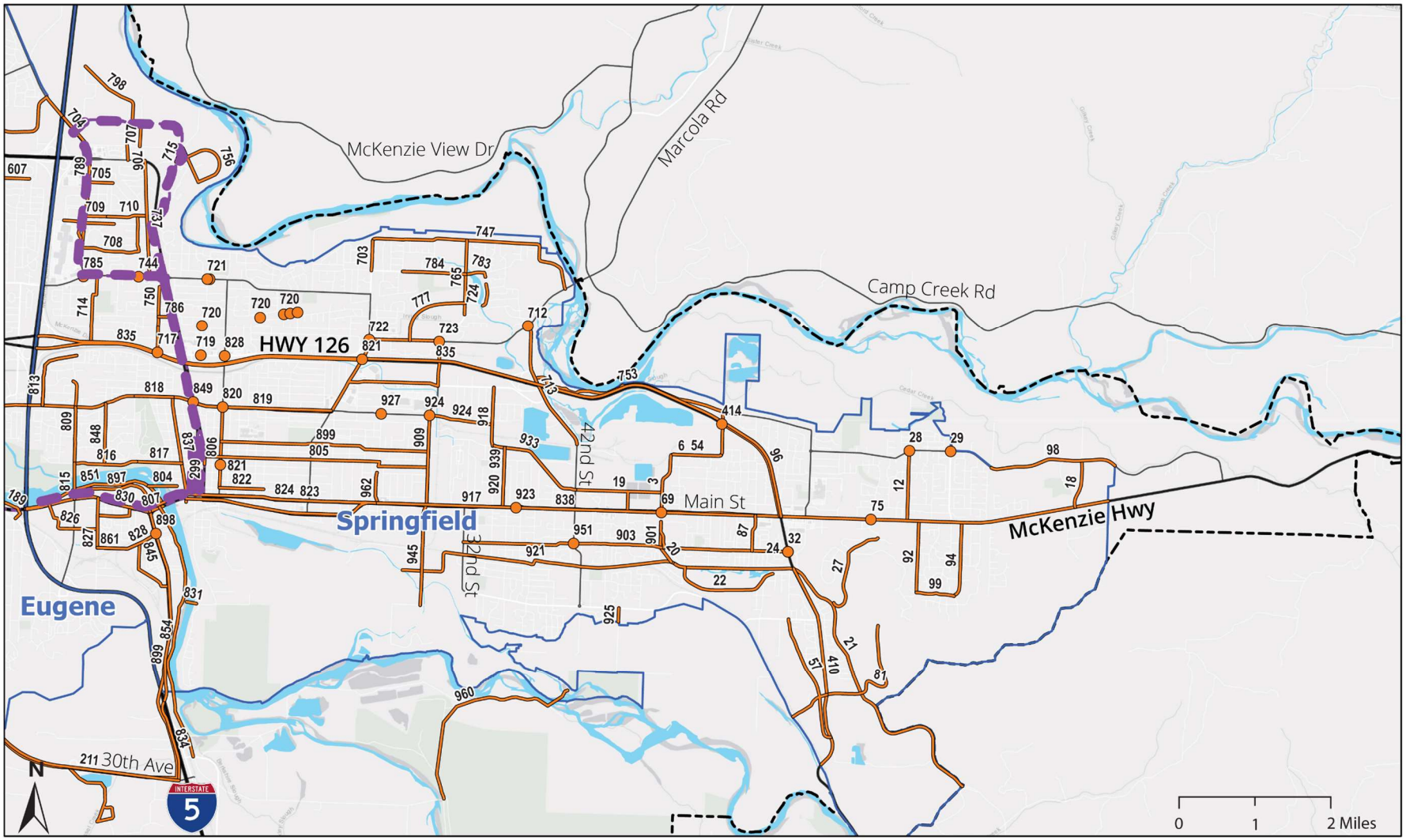
FIGURE 45. FINANCIALLY CONSTRAINED RTP PROJECT LIST - ENGLARGED AREA EAST



2045 RTP Financially Constrained Projects

- Urban Growth Boundaries
- MPO Area Boundary
- Water Area
- Bus Rapid Transit
- Constrained RTP Projects
- Constrained RTP Projects
- Highways
- Arterial Roads

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CONSTRAINED PROJECTS: AUTO

TABLE 23. PROJECT CATEGORY: NEW ARTERIAL LINK OR INTERCHANGE

PROJECT CATEGORY: NEW ARTERIAL LINK OR INTERCHANGE											
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status[59]**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**	**Federal Functional Class**
Beltline Local Arterial Bridge	Beaver Street to Delta Highway	Construct new 2-lane arterial bridge over the Willamette River connecting Green Acres Road with Division Ave. Include modifications to Beltline/Delta ramps consistent with the Beltline Highway Facility Plan	ODOT, Lane County, City of Eugene	ODOT has conducted project hot spot analysis and during IAC meeting December 2020 found this project was not a project of local air quality concern.	$118,800,000	2025-2029	$134,230,467	$151,665,137	0.95	512	Minor arterial
Eugene-Springfield Highway (also referred to as SR-126 and OR 126)	at Main Street	Construct interchange (intersection improvements needed to calm traffic and integrate multi-modal access at the intersection of two five-lane roadways – SR-126 is currently two travel lanes in each direction with left turn lanes onto Main Street; Main Street is two lanes in each direction with turn lanes onto SR-126 and Bob Straub Parkway.)	ODOT	**Non-exempt**	$50,000,000	2030-2034	$65,810,925	$74,358,848	0	27	Other Freeways and Expressways
Eugene-Springfield Highway (also referred to as SR-126 and OR 126)	at 52nd Street	Construct interchange (intersection improvements needed to calm traffic and integrate multimodal access – SR-126 is currently two travel lanes in each direction with a center median and turn lane; 52nd Street is one travel lane in each direction with a turn lane; intersection lacks sidewalks, pedestrian/ADA accessibility)	ODOT	**Non-exempt**	$40,000,000	2025-2029	$45,195,444	$51,065,703	0	30	Other Freeways and Expressways
			Project Category Subtotal		**$208,8000,000**		**$245,236,836**	**$277,089,688**			

TABLE 24. PROJECT CATEGORY: ADDED FREEWAY LANES OR MAJOR INTERCHANGE IMPROVEMENTS

PROJECT CATEGORY: ADDED FREEWAY LANES OR MAJOR INTERCHANGE IMPROVEMENTS											
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**	**Federal Functional Class**
Randy Pape Beltline Highway	Roosevelt Boulevard to W. 11th Avenue	Add lanes on Belltine Highway and provide intersection improvements at the W. 11th Avenue and Roosevelt Boulevard intersections.	ODOT, Eugene	**Non-exempt**	$28,100,000	2030-2034	$36,985,740	$41,789,673	1.1	312	Other Principal Arterial
Delta/Beltline Interchange	Delta at Beltline	Interim/safety improvements; replace/revise existing ramps; widen Delta Highway bridge to five lanes	ODOT	**Non-exempt**	$20,000,000	2020-2024	$19,398,642	$21,918,256	0.25	638	Other Freeways and Expressways
Eugene-Springfield Highway (OR 126)	@ Mohawk Boulevard Interchange	Add lanes on ramps	ODOT	**Non-exempt**	$2,000,000	2030-2034	$2,632,437	$2,974,354	0.68	821	Other Freeways and Expressways
				Project Category Subtotal	**$50,100,000**		**$59,016,819**	**$66,682,283**			

[59] IAC will review all projects at time of project development for determination of project level conformity and hot spot analysis.

TABLE 25. PROJECT CATEGORY: ARTERIAL CAPACITY IMPROVEMENTS

PROJECT CATEGORY: ARTERIAL CAPACITY IMPROVEMENTS											
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**	**Federal Functional Class**
Main Street/48th Street	Intersection of Main Street and 48th Street	Construct traffic control improvements	Springfield	**Exempt** 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature	$300,000	2025-2029	$338,966	$382,993	0	69	Other Principal Arterial
Main Street/Mountaingate Drive	Intersection of Main Street and Mountaingate Drive	Construct traffic control improvements	Springfield	**Exempt** 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature	$900,000	2025-2029	$1,016,897	$1,148,978	0	75	Other Principal Arterial
42nd Street/Marcola Road	Intersection of 42nd Street and Marcola Road	Construct roundabout	Springfield	**Exempt** 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature; Traffic control devices and operating assistance other than signalization projects	$2,800,000	2020-2024	$2,715,810	$3,068,556	0	712	Minor Arterial
Harlow Road/Pheasant Boulevard	Intersection of Harlow Road and Pheasant Boulevard	Construct traffic control improvements	Springfield	**Exempt** 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature	$500,000	2030-2034	$658,109	$743,588	0	744	Minor Arterial
Gateway Street/Harlow Road	Intersection of Gateway Street and Harlow Road	Construct traffic control improvements	Springfield	**Exempt** 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature	$2,910,000	2030-2034	$3,830,196	$4,327,685	0.5	785	Minor Arterial
Gateway/Beltline Road	International Way to Postal Way	Improve intersections and realign Gateway	Springfield	**Exempt** 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature; Traffic control devices and operating assistance other than signalization projects	$20,000,000	2025-2029	$22,597,722	$25,532,851	0.9	789	Other Freeways and Expressways
Q Street/5th Street	Intersection of Q Street and 5th Street	Intersection improvements - Construct right turns to the eastbound and northbound approaches or a roundabout.	Springfield	**Exempt** 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature; Traffic control devices and operating assistance other than signalization projects	$550,000	2030-2034	$723,920	$817,947	0.5	828	Minor Arterial
Centennial Boulevard/28th Street	Intersection of Centennial Boulevard and 28th Street	Construct roundabout	Springfield	**Exempt** 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature	$1,800,000	2035-2040	$2,759,903	$3,215,046	0	924	Minor Arterial
Centennial Boulevard/21st Street	Intersection of Centennial Boulevard and 21st Street	Construct traffic control improvements	Springfield	**Exempt** 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature	$290,000	2035-2040	$444,651	$517,980	0	927	Minor Arterial
South 42nd Street/Daisy Street	Intersection of South 42nd Street and Daisy Street	Traffic control improvements - Construct a traffic signal or a roundabout	Springfield	**Exempt** 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature; Traffic control devices and operating assistance other than signalization projects	$1,800,000	2020-2024	$1,745,878	$1,972,643	0	951	Minor Arterial
Gateway Street	International Way to UGB	Construct 5 lane cross section (currently 3 lane cross section)	Springfield	**Non-exempt**	$950,000	2025-2029	$1,073,392	$1,212,810	0.63	704	Minor Arterial
42nd Street	Marcola Road to RR Tracks	Modify to 3 lane cross section with stripped bicycle lanes and traffic controls at Marcola Rd and the OR126 westbound ramps	Springfield	**Non-exempt**	$6,000,000	2020-2024	$5,819,593	$6,575,477	1.05	713	Minor Arterial
Daisy Street/Bob Straub Parkway	Intersection of Daisy Street and Bob Straub Parkway	Traffic control improvements or undercrossing of Bob Straub Parkway	Lane County	**Exempt** 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature	$3,000,000	2030-2034	$3,948,655	$4,461,531	0	32	Minor Arterial

PROJECT CATEGORY: ARTERIAL CAPACITY IMPROVEMENTS											
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**	**Federal Functional Class**
Franklin Boulevard (OR 126)	I-5 to RR Tracks south of Franklin Blvd/McVay Hwy	Multimodal urban standards and intersection control improvements	Springfield	**Exempt** 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature	$35,000,000	2020-2024	$33,947,624	$38,356,948	1.29	830	Other Principal Arterial
Franklin Boulevard (OR 225)/East 19th Avenue	Intersection of McVay Hwy and East 19th Ave	Construct a new 2 lane roundabout (currently this intersection does not have traffic controls)	Springfield	**Exempt** 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature; Traffic control devices and operating assistance other than signalization projects	$2,500,000	2025-2029	$2,824,715	$3,191,606	0	898	Minor Arterial
Franklin Boulevard (OR 225)	East 19th Avenue to I-5	Construct 2 or 3 lane cross-section as needed with sidewalks, bicycle facilities and transit facilities consistent with Main Street/McVay Hwy Transit Feasibility Study and Springfield TSP project T-3.	Springfield	**Non-exempt**	$47,000,000	2030-2034	$61,862,269	$69,897,317	1.34	899	Minor Arterial
Marcola Road/19th Street	Intersection of Marcola Road and 19th Street	Construct right-turn lane on westbound approach or a roundabout	Springfield	**Exempt** 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature; Traffic control devices and operating assistance other than signalization projects	$320,000	2020-2024	$310,378	$350,692	0	722	Minor Arterial
28th Street/Marcola Road	Intersection of 28th Street and Marcola Road	Construct a roundabout (intersection is currently signalized)	Springfield	**Exempt** 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature; Traffic control devices and operating assistance other than signalization projects	$1,900,000	2030-2034	$2,500,815	$2,825,636	0	723	Minor Arterial
W. 11th Avenue	Green Hill Road to Terry Street	Upgrade to 5-lane urban facility with 2 lanes in each direction, a center lane, sidewalk, and multiuse path (currently a 2 lane roadway)	ODOT, Eugene	**Non-exempt** Determined not a project of local air quality concern per IAC meeting July 2021	$12,300,000	2030-2034	$16,189,487	$18,292,277	1	333	Other Principal Arterial
Martin Luther King Jr. Blvd.	Leo Harris Parkway West to Centennial Loop	Add center turn lane on Martin Luther King Jr. Blvd. (currently a 4 lane cross section between Leo Harris Parkway West and Centennial Loop)	Eugene	**Exempt** 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature; Traffic control devices and operating assistance other than signalization projects	$6,700,000	2024-2028	$7,342,616	$8,296,319	0.21	602	Minor Arterial
Barger Drive	West of Primrose Street to where the street widens to two lanes in each direction west of Randy Papé Beltline Highway	Widen Barger Drive to provide a second through lane in each direction	Eugene	**Non-exempt**	$1,900,000	2024-2028	$2,082,234	$2,352,688	0.14	497	Minor Arterial
Franklin Blvd.	Alder Street to Walnut Street	4 travel lanes, central planter strip and bus lanes, roundabouts, and shared use paths on both sides	Eugene	**Non-exempt**	$43,500,000	2025-2029	$49,150,045	$55,533,952	1	119	Other Principal Arterial
				Project Category Subtotal	**$192,920,000**		**$223,883,875**	**$253,075,520**			

TABLE 26. PROJECT CATEGORY: NEW COLLECTORS

PROJECT CATEGORY: NEW COLLECTORS											
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**	**Federal Functional Class**
Riverbend Drive	Extend to International Way	Construct 3-lane cross section with sidewalks and bike lanes	Springfield	**Non-exempt**	$1,600,000	2020-2024	$1,551,891	$1,753,460	0.19	715	Major Collector
Improvements to serve Riverbend Area	Baldy View Lane, McKenzie-Gateway Loop and Off-Street Path Connections	Improve Baldy View Lane, construct a McKenzie-Gateway Loop connector/new collector and construct off-street path connections. See Springfield 2035 TSP Figure 6.	Springfield	**Non-exempt**	$10,200,000	2030-2034	$13,425,429	$15,169,205	0.86	756	Collector

PROJECT CATEGORY: NEW COLLECTORS											
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**	**Federal Functional Class**
79th Street	Thurston Road to Main Street	New 2 lane collector	Springfield	**Non-exempt**	$8,200,000	2035-2040	$12,572,891	$14,646,319	0.37	18	Minor Collector
Improvements within Jasper-Natron Area	Jasper-Natron Area between Bob Straub Parkway, Jasper Road and Mt. Vernon Road	Construct multiple roadways to serve planned development. See Springfield 2035 TSP Figure 6.	Springfield	**Non-exempt**	$67,000,000	2030-2034	$88,186,639	$99,640,856	1.35	33,36, 39, 42, 45, 48, 51, 57	Collector
New Collector	Bob Straub Parkway to Mountaingate Drive and Future Local	Construct a new collector with a three-lane cross-section with sidewalks and bicycle facilities	Springfield	**Non-exempt**	$4,300,000	2020-2024	$4,170,708	$4,712,425	1.03	81	Major Collector
19th Street	Hayden Bridge Road to Yolanda Avenue	Extend existing street as 2-lane collector with sidewalks and bicycle facilities	Springfield	**Non-exempt**	$2,400,000	2030-2034	$3,158,924	$3,569,225	0.33	703	Minor Collector
V Street	31st Street to Marcola Road	Construct a new collector with a three-lane cross-section with sidewalks and bicycle facilities.	Springfield	**Non-exempt**	$9,000,000	2020-2024	$8,729,389	$9,863,215	0.65	777	Collector
Yolanda Avenue	31st Street to 35th Street	Construct Yolanda Avenue from 31st Street to 33rd Street with sidewalks and bicycle facilities, add sidewalks and bicycle facilities from 33rd Street to 35th Street	Springfield	**Non-exempt**	$9,900,000	2030-2034	$13,030,563	$14,723,052	0.2	783	Minor Collector
North Gateway Collector	Maple Island Road/ Royal Caribbean Way to International	Construct a new collector with a three-lane cross-section with sidewalks and bicycle facilities.	Springfield	**Non-exempt**	$4,300,000	2025-2029	$4,858,510	$5,489,563	0.63	798	Collector
Franklin Riverfront Collector	Franklin Blvd/McVay to west portion of Franklin riverfront	Collector to serve Glenwood redevelopment area along riverfront north of Franklin Blvd.	Springfield	**Non-exempt**	$7,700,000	2020-2024	$7,468,477	$8,438,528	0.7	897	Collector
48th Street	Aster Street to Daisy Street	Extend South 48th Street with a two-lane cross-section with a parallel multi-use 12-foot wide path and roundabout intersection treatment at Daisy Street and South 48th Street	Springfield	**Non-exempt**	$3,600,000	2025-2029	$4,067,590	$4,595,913	0.3	901	Major Collector
New Collector	Game Farm Road East to International Way	Construct new 3- lane collector with sidewalks and bicycle facilities	Springfield	**Non-exempt**	$6,300,000	2030-2034	$8,292,176	$9,369,215	0.18	707	Major Collector
Maple Island Road	Game Farm Road/Deadmond Ferry Road to Beltline Road	Extend Maple Island Road with a 2-lane cross-section with sidewalk, bicycle facilities, intersection at Beltline	Springfield	**Non-exempt**	$3,100,000	2020-2024	$3,006,790	$3,397,330	0.11	706	Minor Collector
New Collector	Laura Street - Pioneer Parkway	Construct new 3-lane collector with sidewalks and bicycle facilities in or near the EWEB powerline corridor with a right-in/right-out intersection at Pioneer Parkway; In the Springfield TSP, PB-7 is required to serve as sidewalk and bikeway	Springfield	**Non-exempt**	$3,300,000	2030-2034	$4,343,521	$4,907,684	0.12	786	Collector
Centennial Boulevard/ Industrial Avenue	28th Street to 35th Street	Extend with a 3-lane cross-section	Springfield	**Non-exempt**	$9,500,000	2030-2034	$12,504,076	$14,128,181	0.5	924	Major Collector
Commercial Avenue	Extend between 42nd Street and 48th Street and a north/south extension to serve development to the north between 42nd and 48th (see TSP map)	Extend with a 3-lane cross-section	Springfield	**Non-exempt**	$19,000,000	2035-2040	$29,132,309	$33,936,593	0.84	19	Major Collector
New Collector	Holly Street - South 48th Street to South 57th Street	Construct new collector with 2-lane cross-section with sidewalks and bicycle facilities	Springfield	**Non-exempt**	$5,300,000	2025-2029	$5,988,396	$6,766,206	0.94	22	Minor Collector
Mallard Avenue	Gateway Street to Oriole Street	Change Mallard Avenue to a two-lane cross-section with sidewalks and bicycle facilities and extend Mallard Avenue to Gateway Street with a two-lane cross-section with sidewalks and bicycle facilities	Springfield	**Non-exempt**	$3,000,000	2035-2040	$4,599,838	$5,358,409	0.18	709	Minor Collector
Q Street	@ Laura Street	Construct traffic controls, extend the second westbound through-lane through the Laura Street intersection, and construct a westbound right-turn lane	ODOT, Springfield	**Non-exempt**	$1,600,000	2025-2029	$1,807,818	$2,042,628	0	717	Major Collector
W. 13th Avenue	Bertelsen Road to Dani Street	New major collector	Eugene	**Non-exempt**	$3,600,000	2020-2024	$3,491,756	$3,945,286	1	318	Major collector

PROJECT CATEGORY: NEW COLLECTORS											
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**	**Federal Functional Class**
Colton Way Extension	Royal Avenue to Legacy Extension	New major collector	Eugene	**Non-exempt**	$3,700,000	2025-2029	$4,180,579	$4,723,578	0.7	429	Major collector
Legacy Extension	Adelman Loop to Roosevelt Blvd	New major collector	Eugene	**Non-exempt**	$17,500,000	2025-2029	$19,773,007	$22,341,245	1.4	435	Major collector
Awbrey to Enis Connector	Awbrey Lane to Enid Road	New major collector	Eugene	**Non-exempt**	$7,400,000	2030-2034	$9,740,017	$11,005,110	0.8	441	Major collector
Gilham-County Farm Connection	Gilham to County Farm Road	New neighborhood collector	Eugene	**Non-exempt**	$2,800,000	2020-2024	$2,715,810	$3,068,556	0.7	651	Minor Collector
Shadowview Road	Shadowview Road to Coburg Road via Spectrum Avenue	Extend neighborhood collector with two travel lanes and sidewalks on both sides	Eugene	**Non-exempt**	$3,200,000	2020-2024	$3,103,783	$3,506,921	0.3	603	Minor Collector
Crow Road/West 11th Avenue/Pitchford area	Crow Road/West 11th Avenue/Pitchford area	Construct collectors and other facilities within Crow Road/West 11th Avenue/Pitchford area needed to serve future development	Eugene	**Non-exempt**	$21,300,000	2025-2029	$24,066,574	$27,192,487	1.3	333	Collectors
				Project Category Subtotal	**$238,800,000**		**$297,967,461**	**$338,291,190**			

TABLE 27. PROJECT CATEOGRY: URBAN STANDARDS

PROJECT CATEGORY: URBAN STANDARDS											
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**	**Federal Functional Class**
Game Farm Road South	Mallard Road to Harlow Road	Upgrade to 2-lane urban facility (currently a 2-lane roadway; modify to include sidewalks and bicycle facilities)	Lane County, Springfield	**Exempt** 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	$4,100,000	2030-2034	$5,396,496	$6,097,426	0.93	737	Local
Hayden Bridge Road / 23rd St	19th Street to Marcola Rd	Upgrade to 2-lane urban facility (currently a 2-lane roadway; modify to include sidewalks and bicycle facilities)	Lane County, Springfield	**Exempt** 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	$12,000,000	2030-2034	$15,794,622	$17,846,124	1.78	747	Minor Collector
31st Street	Hayden Bridge Road to U Street	Upgrade to 2 lane urban facility (currently a 2-lane roadway; modify to include sidewalks and bicycle facilities)	Lane County, Springfield	**Exempt** 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	$3,800,000	2030-2034	$5,001,630	$5,651,272	0.58	765	Minor Collector
Laura Street	Old Laura Street to Scotts Glen Drive	Upgrade to 3-lane urban facility (currently a 3-lane roadway; modify to include sidewalks and bicycle facilities)	Lane County, Springfield	**Exempt** 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	$1,575,000	2020-2024	$1,527,643	$1,726,063	0.4	750	Major Collector
Aspen Street	Centennial Boulevard to West D Street	Upgrade to 2 lane urban facility (currently a 2-lane roadway; modify to include sidewalks and bicycle facilities)	Lane County, Springfield	**Exempt** 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	$2,800,000	2030-2034	$3,685,412	$4,164,095	0.44	809	Minor Collector
48th Street	Main Street to G Street	Upgrade to 2 lane urban facility (currently a 2-lane roadway; modify to include a multi-use path on one side of street)	Springfield	**Exempt** 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	$600,000	2025-2029	$677,932	$765,986	0.48	3	Major Collector
52nd Street	OR 126E to G Street	Upgrade to 2 lane urban facility (currently a 2-lane roadway; modify to include a multi-use path on one side of street)	Springfield	**Exempt** 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	$250,000	2020-2024	$242,483	$273,978	0.2	6	Major Collector
G Street	48th Street to 52nd Street	Upgrade to 2 lane urban facility (currently a 2-lane roadway; modify to include a multi-use path on one side of street)	Springfield	**Exempt** 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	$370,000	2020-2024	$358,875	$405,488	0.31	54	Major Collector
Thurston Road	Weaver Road to UGB	Upgrade to 3 lane urban facility (currently a 2-lane roadway; modify to include sidewalks and bicycle facilities)	Springfield	**Non-Exempt**	$4,800,000	2035-2040	$7,359,741	$8,573,455	0.61	98	Minor Collector

PROJECT CATEGORY: URBAN STANDARDS										
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**	**Federal Functional Class**
28th Street	Centennial Boulevard to Main Street	Upgrade to 3 lane urban facility (currently a 3-lane roadway with narrow sidewalk and no bicycle facilities; modify to include standard sidewalks and bicycle facilities); provide intersection and signal improvements at Main Street	Springfield	**Non-exempt**	$4,300,000	2030-2034	$5,659,740	$6,394,861	0.7	909	Major Collector
35th Street	Olympic Street to Commercial Avenue	Upgrade to 3-lane urban facility (currently a 2-lane roadway; modify to 3 lanes with sidewalks and bicycle facilities)	Springfield	**Non-exempt**	$3,600,000	2020-2024	$3,491,756	$3,945,286	0.46	918	Major Collector
Commercial Avenue	35th Street to 42nd Street	Upgrade to 3-lane urban facility (currently a 2-lane roadway; modify to 3 lanes with sidewalks and bicycle facilities)	Springfield	**Non-exempt**	$4,500,000	2025-2029	$5,084,487	$5,744,892	0.81	933	Major Collector
S. 28th Street	Main Street to South F Street	Upgrade to 3-lane urban facility (currently a 2-lane roadway; modify to 3 lanes with sidewalks and bicycle facilities)	Springfield	**Non-exempt**	$6,000,000	2020-2024	$5,819,593	$6,575,477	0.67	945	Major Collector
21st Street	D Street to Main Street	Upgrade to 3-lane urban facility (currently a 2-lane roadway with on-street parking and sidewalks; modify to 3 lanes with sidewalks and bicycle facilities)	Springfield	**Non-exempt**	$2,300,000	2030-2035	$3,027,303	$3,526,543	0.2	962	Minor Collector
36th Street	Commercial Avenue to Main Street	Upgrade to 3-lane urban facility (currently a 2-lane roadway with on-street parking and sidewalks; modify to 3 lanes with sidewalks and bicycle facilities)	Springfield	**Non-exempt**	$3,000,000	2035-2040	$4,599,838	$5,358,409	0.47	920	Minor Collector
Clearwater Lane	South of Jasper Road within the Springfield UGB	Upgrade to 2 lane urban facility (currently a 2-lane roadway; modify to 2 lanes with sidewalks and bicycle facilities)	Lane County, Springfield	**Exempt** 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	$470,000	2025-2029	$531,046	$600,022	0.11	925	Local
Mallard Avenue	Oriole St. to Game Farm Road	Upgrade to 2 lane urban facility (currently a 2-lane roadway with on-street parking; modify to 2 lanes with sidewalks and bicycle facilities). And extend Mallard Avenue to Gateway Street with a 2-lane cross-section with sidewalks and bicycle facilities.	Springfield	**Non-exempt**	$4,530,000	2020-2024	$1,454,898	$1,643,869	0.31	710	Local (current)
East 17th Avenue	Glenwood Blvd. to Henderson Ave.	Upgrade to 3-lane urban facility (currently a 2-lane roadway; modify to 3 lanes with sidewalks and bicycle facilities)	Springfield	**Non-exempt**	$1,900,000	2030-2034	$2,500,815	$2,825,636	0.52	826	Minor Collector
Henderson Avenue	Franklin Boulevard to East 19th Avenue	Upgrade to 3-lane urban facility (currently a 2-lane roadway; modify to 3 lanes with sidewalks and bicycle facilities)	Springfield, Lane County	**Non-exempt**	$3,400,000	2035-2040	$5,213,150	$6,072,864	0.39	827	Local (current)
East 19th Avenue	Henderson Avenue to McVay Hwy	Upgrade to 3-lane urban facility (currently a 2-lane roadway; modify to 3 lanes with sidewalks and bicycle facilities)	Springfield	**Non-exempt**	$3,500,000	2030-2034	$4,606,765	$5,205,119	0.49	828	Minor Collector
Yolanda Avenue	23rd Street to 31st Street	Upgrade to 2-lane urban facility (currently a 2-lane roadway; modify with sidewalks and bicycle facilities)	Lane County	**Exempt** 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	$460,000	2025-2029	$519,748	$587,256	0.8	784	Minor Collector
Bertelsen Road	18th Avenue to Bailey Hill Road	Upgrade to minor arterial standards with two travel lanes, center turn lane, bike lanes, sidewalks on both sides, and planting strips (currently a 2-lane roadway)	Eugene	**Non-exempt**	$3,900,000	2025-2029	$3,782,735	$4,274,060	0.6	315	Minor Arterial
Bailey Hill Road	Warren St to Eugene UGB	Construct to Eugene's minor arterial standards, including two travel lanes, center turn lane, and bike lanes, planter strip, and sidewalks on both sides (currently a 2-lane roadway)	Eugene, Lane County	**Non-exempt**	$9,200,000	2020-2024	$8,923,375	$10,082,398	1.6	343	Minor Arterial
Bethel Drive	Highway 99 to Roosevelt Blvd	Upgrade to 2-lane urban facility (currently a 2-lane roadway without sidewalks; modify to include sidewalks and bike lanes)	Eugene	**Exempt** 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	$11,800,000	2025-2029	$13,332,656	$15,064,382	1.68	414	Minor Collector
Royal Avenue	Green Hill Road to Terry Street	Upgrade to minor arterial standards with two travel lanes, center turn lane, bike lanes, sidewalks on both sides, and planting strips (currently a 2-lane roadway)	Eugene	**Non-exempt**	$11,200,000	2020-2024	$10,863,240	$12,274,223	1.01	481	Minor Arterial
Hunsaker Lane / Beaver Street	River Road to Division Avenue	Upgrade to major collector standards with two travel lanes, center turn lane, bike lanes, sidewalks on both sides, and planting strips (currently a 2-lane roadway)	Lane County, Eugene	**Non-exempt**	$9,300,000	2020-2024	$9,020,369	$10,191,989	1.14	527	Major Collector

PROJECT CATEGORY: URBAN STANDARDS											
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**	**Federal Functional Class**
Wilkes Drive	River Road to River Loop 1	Upgrade to major collector standards with two travel lanes, center turn lane, bike lanes, sidewalks on both sides, and planting strips (currently a 2-lane roadway)	Lane County, Eugene	**Non-exempt**	$7,000,000	2025-2029	$7,909,203	$8,936,498	0.93	554	Major Collector
North Gilham Road	Ayres Road to Ashbury Drive	Upgrade to minor arterial standards with two travel lanes, center turn lane, bike lanes, sidewalks on both sides, and planting strips (currently a 2-lane roadway)	Eugene, Lane County	**Non-exempt**	$1,500,000	2020-2024	$1,454,898	$1,643,869	0.3	662	Minor Collector
County Farm Road	North-to-South Section	Upgrade to major collector standards with two travel lanes, center turn lane, bike lanes, sidewalks on both sides, and planting strips (currently a 2-lane roadway)	Lane County, Eugene	**Non-exempt**	$4,400,000	2025-2029	$4,267,701	$4,822,016	0.62	631	Major Collector
County Farm Road	West-to-East Section	Upgrade to major collector standards with two travel lanes, center turn lane, bike lanes, sidewalks on both sides, and planting strips (currently a 2-lane roadway)	Eugene	**Non-exempt**	$3,200,000	2025-2029	$3,615,635	$4,085,256	0.53	632	Major Collector
Goodpasture Island Road	Delta Highway to Happy Lane	Upgrade to minor arterial standards with two travel lanes, center turn lane, bike lanes, sidewalks on both sides, and planting strips (currently a 2-lane roadway)	Eugene	**Non-exempt**	$163,000	2030-2034	$214,544	$242,410	0.19	664	Minor Arterial
Fox Hollow Road	Donald Street to the UGB	Upgrade Fox Hollow Rd consistent with major collector standards	Eugene, Lane County	**Exempt** 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	$5,700,000	2030-2034	$7,502,445	$8,476,909	0.9	382	Major Collector
				Project Category Subtotal	**$135,618,000**		**$153,440,774**	**$174,078,131**			

TABLE 28. PROJECT CATEGORY: STUDY

PROJECT CATEGORY: STUDY										
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**
Interchange Area Management Plan at OR126E (Expressway) and Main St	Interchange of OR 126E at Main Street in Springfield	The Interchange Area Management Plan (IAMP) will establish an agreement between the City of Springfield and ODOT regarding transportation solutions and/or land use/policy actions needed at this interchange area and how to best balance and manage transportation and land use issues over time. The IAMP is a tool in protecting the function and operations of the state highway interchanges and the supporting local street network.	ODOT, Springfield	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$250,000	2025-2029	$282,472	$319,161	1.5	96
OR126 Expressway Management Plan	I-5 to Main Street in Springfield	The facility plan will establish an agreement between the City of Springfield and ODOT for managing access on OR 126 Expressway between I-5 and Main Street in Springfield.	ODOT, Springfield	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$750,000	2030-2034	$987,164	$1,115,383	6.5	835
Main Street/Highway 126	I-5 east to Springfield UGB	The facility plan will establish an agreement between the City of Springfield and ODOT for managing access on Main Street/Highway 126 between I-5 and the Springfield UGB.	Springfield, ODOT	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$150,000	2020-2024	$145,490	$164,387	6	838
Study to assess multimodal improvements at Beltline Highway and Gateway	Gateway Street between International Way and Gateway Loop	Assess, evaluate, and identify multimodal improvements for Gateway Street at Beltline Highway.	Springfield, ODOT	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$800,000	2020-2024	$775,946	$876,730	0.36	608
Circulation study at Pioneer Parkway/Q Street/Laura Street	Pioneer Parkway/Q Street/Laura Street	Circulation study to improve safety, access, and capacity at Pioneer Parkway/Q Street/Laura Street	Springfield, ODOT	**Exempt** 40 CFR 93.126, Other – Planning and technical studies)	$300,000	2025-2029	$338,966	$382,993	0.35	718
Main Street (OR126B) crossing study	OR 126 between 5th Street and 15th Street	Study a new crossing of OR 126 between 5th Street and 15th Street	Springfield, ODOT	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$200,000	2035-2040	$306,656	$357,227	0.79	823
Centennial Boulevard operational improvements study	Centennial Boulevard from Prescott Lant to Mill Street	Operational improvements study of Centennial Boulevard between Prescott Lane and Mill Street	Springfield	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$100,000	2030-2034	$131,622	$148,718	0.29	818

PROJECT CATEGORY: STUDY										
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**
Pioneer Parkway at Centennial Boulevard Intersection Study	Pioneer Parkway at Centennial Boulevard	Intersection study to improve pedestrian safety at the intersection of Pioneer Parkway and Centennial Boulevard	Springfield	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$75,000	2020-2024	$72,745	$82,193	0	849
Centennial Boulevard operational improvements study	Centennial Boulevard from Mohawk Boulevard to Pioneer Parkway	Operational improvements study of Centennial Boulevard between Mohawk Boulevard and Pioneer Parkway	Springfield	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$75,000	2020-2024	$72,745	$82,193	1.08	819
Mohawk Boulevard/Olympic Street/18th Street/Centennial Triangle study of safety and operational improvements	Mohawk Boulevard/Olympic Street/18th Street/Centennial triangle	Study of safety and operational improvements at the Mohawk Boulevard/Olympic Street/18th Street/Centennial triangle	Springfield	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$100,000	2020-2024	$96,993	$109,591	0.9	916
Bridge Study at the Walnut Road/West D Street to Glenwood Boulevard/Franklin Boulevard intersection	Intersection of Walnut Road/West D Street to Glenwood Boulevard/Franklin Boulevard	Study of a new bridge at the Walnut Road/West D Street to Glenwood Boulevard/Franklin Boulevard intersection	Springfield	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$750,000	2035-2040	$1,149,960	$1,339,602	0.28	815
Main Street/South A Street Study	Main Street/South A from Mill Street to 21st Street	Study of multimodal improvements from on Main Street/South A Street from Mill Street to 21st Street	Springfield	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$150,000	2020-2024	$145,490	$164,387	2.98	824
Glenwood Industrial Area Refinement Study	Glenwood industrial area	Refinement study specific to the Glenwood Industrial Area	Springfield	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$150,000	2030-2034	$197,433	$223,077	0.82	829
Glenwood – Dorris Ranch pedestrian and bicycle bridge study	Across the Willamette River between Glenwood and Dorris Ranch	Study a new pedestrian bicycle bridge crossing the Willamette River and connecting Glenwood and Dorris Ranch	Springfield	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$750,000	2035-2040	$1,149,960	$1,339,602	0.08	831
Main Street (OR126B)	Facility Plan	20th St to 72nd St	Springfield, ODOT	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$1,000,000	In progress	$912,481	$1,031,000	2.23	917
South 28th Street to South 32nd Street East/west connectivity study	Between South 28th Street and South 32nd Street (South of Main Street)	Study opportunities for east/west connectivity between South 28th Street and South 32nd street (south of Main Street)	Springfield	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$100,000	2025-2029	$112,989	$127,664	0.33	918
Study crossing of OR 126 near Thurston	OR 126 near Thurston High School	Study a new crossing of OR 126 Near Thurston High School	Springfield, ODOT	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$200,000	2025-2029	$225,977	$255,329	0.32	26
Connectivity Study south of OR 126 and Jessica Street	South of OR 126 and adjacent to Springfield's eastern UGB (see Springfield TSP, Figure 8: Transit and Study Projects, Project S-16)	Study connectivity options for the area of Springfield south of OR 126 and along the eastern UGB	Springfield	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$100,000	2030-2034	$131,622	$148,718	1.89	31
River Crossings	Along the Willamette River	Study ways to increase capacity over the Willamette River to address bridge crossing congestion issues including improvements to an aging Ferry Street Bridge structure and investigation of transit route options for access into downtown via or around the Ferry Street Bridge in conjunction with either Martin Luther King Jr. Boulevard or Coburg Road transit improvements.	Eugene	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$100,000	2025-2029	$112,989	$127,664	…	TBD **
Improvements to North-South travel and circulation south of downtown Eugene	Downtown Eugene to South Eugene	Evaluate north/south circulation options on the Oak/Pearl and Hilyard/Patterson Streets couplets.	Eugene	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$100,000	2025-2029	$112,989	$127,664	5.49	210
I-105 off-ramp study	I-105 at 6th Avenue	Analyze options to address weaving, operational and safety considerations at the I-105 southbound off-ramp onto 6th Avenue	ODOT, Eugene	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$100,000	2025-2029	$112,989	$127,664	0.44	102
Northwest Expressway study of safety and functionality	Northwest Expressway at the Randy Pape Beltline Highway Ramp termini and other locations	Study opportunities to improve the safety and functionality of Northwest Expressway as a major arterial street including by making intersection improvements at the Randy Pape Beltline Highway ramp termini and other locations, by improving signage, and by making other changes to the street	ODOT, Eugene, Lane County	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$100,000	2025-2029	$112,989	$127,664	0.35	557
Green Hill Road design study	Entire length of Greenhill Road	Study to determine preferred design solution for the entire corridor	Lane County, Eugene	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$500,000	2025-2029	$564,943	$638,321	4.27	485, 454

PROJECT CATEGORY: STUDY										
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**
Beltline Highway environmental study	River Road to Delta Highway	Environmental Study	ODOT	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$2,000,000	2018-2021	$1,824,963	$2,000,000	3.46	555
Coburg Freight Connector Study	North of the city of Coburg between Coburg Road and I-5	Study to determine alignment for a new east-west freight route connection between Coburg Rd and I-5, north of the city of Coburg	Lane County, Coburg, ODOT	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$250,000	2020-2024	$242,483	$273,978	NA	TBD **
Goshen North Connector Study	McVay Highway to Goshen limits	Implement a study to identify the location of a road that provides local walking, bicycling, and transit use as an alternative of I-5.	Lane County	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$415,000	2025-2029	$468,903	$529,807	NA	TBD **
Autzen-UO Campus Gondola/Aerial Tram Study	UO Campus to Autzen Stadium Complex	Study the feasibility of a gondola or aerial tram to connect the University of Oregon to the Autzen Stadium area.	University of Oregon, Eugene	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$150,000	2020-2024	$145,490	$164,387	1	TBD **
Ferry Street Bridge Circulation Study	Ferry Street Bridge to Broadway	Evaluate ending the Ferry Street Bridge Viaduct at 6th Avenue to better connect with the downtown street grid	Eugene	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$200,000	2025-2029	$225,977	$255,329	NA	TBD **
Lower Coburg Road Traffic Flow Study	Oakway Road to Ferry Street Bridge	Study to develop design concepts for making traffic flow better for all modes on lower Coburg Road	Eugene	**Exempt** 40 CFR 93.126, Other – Planning and technical studies	$200,000	2020-2024	$193,986	$219,183	NA	TBD **
				Project Category Subtotal	**$10,115,000**		**$10,644,026**	**$12,329,808**		

***Note: These projects were added after the maps and the analysis were complete. However, these projects will be included in future mapping and analysis.*

TABLE 29. PROJECT CATEGORY: TRANSIT ORIENTED DEVELOPMENT IMPLEMENTATION

PROJECT CATEGORY: TRANSIT ORIENTED DEVELOPMENT IMPLEMENTATION								
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**	
Planning	Various Locations	Planning for implementation of Key Corridor/Mixed Use development	Eugene	**Exempt** 40 CFR 93.126, Other – Planning activities conducted pursuant to titles 23 and 49 U.S.C.	$3,100,000	2020-2024	$3,006,790	$3,397,330
Planning	Various Locations	Planning for implementation of Key Corridor/Mixed Use development	Springfield	**Exempt** 40 CFR 93.126, Other – Planning activities conducted pursuant to titles 23 and 49 U.S.C.	$3,100,000	2020-2024	$3,006,790	$3,397,330
				Project Category Subtotal	**$6,200,000**		**$6,013,580**	**$6,794,660**

CONSTRAINED PROJECTS: TRANSIT

TABLE 30. PROJECT CATEGORY: BUSES AND BUS MAINTENANCE

PROJECT CATEGORY: BUSES AND BUS MAINTENANCE										
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**
Bus Purchases	N/A	Purchase of new buses for fleet expansion and for bus replacement buses	Lane Transit District	**Exempt** 40 CFR 93.126, Mass Transit – Purchase of new buses	$67,790,000	2021-2025	$67,790,000	$76,594,978	-	1110
Bus Purchases	N/A	Purchase of new buses for fleet expansion and for bus replacement buses	Lane Transit District	**Exempt** 40 CFR 93.126, Mass Transit – Purchase of new buses	$31,460,000	2026-2030	$36,648,149	$41,408,234	-	1110
Bus Purchases	N/A	Purchase of new buses for fleet expansion and for bus replacement buses	Lane Transit District	**Exempt** 40 CFR 93.126, Mass Transit – Purchase of new buses	$55,000,000	2031-2035	$74,636,170	$84,330,370	-	1110
Bus Purchases	N/A	Purchase of new buses for fleet expansion and for bus replacement buses	Lane Transit District	**Exempt** 40 CFR 93.126, Mass Transit – Purchase of new buses	$55,000,000	2036-2040	$86,944,611	$98,237,506	-	1110
Bus Purchases	N/A	Purchase of new buses for fleet expansion and for bus replacement buses	Lane Transit District	**Exempt** 40 CFR 93.126, Mass Transit – Purchase of new buses	$55,000,000	2041-2045	$101,282,869	$114,438,105	-	1110
				Project Category Subtotal	**$264,250,000**		**$367,301,799**	**$415,009,193**		

TABLE 31. PROJECT CATEGORY: FREQUENT TRANSIT NETWORK

PROJECT CATEGORY: FREQUENT TRANSIT NETWORK									
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**	**Length**	**RTP #**
Enhanced Corridor	Study corridors include: Highway 99, River Road, Coburg Road, Martin Luther King Jr. Boulevard/Centennial Boulevard, 30th Avenue/Lane Community College, Main Street - McVay Highway, Valley River Center	LTD system improvements to safety, addressing operational issues related to travel time and improvements to passenger amenities	Lane Transit District	**Non-Exempt**	$25,000,000	2021-2025	$25,000,000	$28,247,152	-	1117
Enhanced Corridor		LTD system improvements to safety, addressing operational issues related to travel time and improvements to passenger amenities	Lane Transit District	**Non-Exempt**	$25,000,000	2026-2030	$29,122,814	$32,905,462	-	1117
Enhanced Corridor		LTD system improvements to safety, addressing operational issues related to travel time and improvements to passenger amenities	Lane Transit District	**Non-Exempt**	$25,000,000	2031-2035	$33,925,532	$38,331,986	-	1117
Enhanced Corridor		LTD system improvements to safety, addressing operational issues related to travel time and improvements to passenger amenities	Lane Transit District	**Non-Exempt**	$25,000,000	2036-2040	$39,520,278	$44,653,412	-	1117
Bus Rapid Transit (EmX)		EmX system improvements to safety, addressing operational issues related to travel time and improvements to EmX passenger amenities	Lane Transit District	**Non-Exempt**	$65,000,000	2021-2025	$65,000,000	$73,442,596	-	1115
Bus Rapid Transit (EmX)		EmX system improvements to safety, addressing operational issues related to travel time and improvements to EmX passenger amenities	Lane Transit District	**Non-Exempt**	$65,000,000	2026-2030	$75,719,316	$85,554,202	-	1115
Bus Rapid Transit (EmX)		EmX system improvements to safety, addressing operational issues related to travel time and improvements to EmX passenger amenities	Lane Transit District	**Non-Exempt**	$65,000,000	2031-2035	$88,206,382	$99,663,164	-	1115
Bus Rapid Transit (EmX)		EmX system improvements to safety, addressing operational issues related to travel time and improvements to EmX passenger amenities	Lane Transit District	**Non-Exempt**	$65,000,000	2036-2040	$102,752,722	$116,098,871	-	1115
				Project Category Subtotal	**$360,000,000**		**$459,247,044**	**$518,896,845**		

TABLE 32. PROJECT CATEGORY: GENERAL STOPS AND STATIONS

PROJECT CATEGORY: GENERAL STOPS AND STATIONS										
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**
Passenger Boarding Improvements	Various	Ongoing effort to maintain and/or improve the passenger boarding experience. Improvements include additions or replacements of pads, benches, and shelters	Lane Transit District	**Exempt** 40 CFR 93.126, Mass Transit – Construction of small passenger shelters and information kiosks. Other – Transportation enhancement activities	22,975,000	2021-2025	$22,975,000	$25,959,133	-	1130
Passenger Boarding Improvements	Various	Ongoing effort to maintain and/or improve the passenger boarding experience. Improvements include additions or replacements of pads, benches, and shelters	Lane Transit District	**Exempt** 40 CFR 93.126, Mass Transit – Construction of small passenger shelters and information kiosks. Other – Transportation enhancement activities	$14,000,000	2026-2030	$16,308,776	$18,427,059	-	1130
Passenger Boarding Improvements	Various	Ongoing effort to maintain and/or improve the passenger boarding experience. Improvements include additions or replacements of pads, benches, and shelters	Lane Transit District	**Exempt** 40 CFR 93.126, Mass Transit – Construction of small passenger shelters and information kiosks. Other – Transportation enhancement activities	$12,700,000	2031-2035	$17,234,170	$19,472,649	-	1130
Passenger Boarding Improvements	Various	Ongoing effort to maintain and/or improve the passenger boarding experience. Improvements include additions or replacements of pads, benches, and shelters	Lane Transit District	**Exempt** 40 CFR 93.126, Mass Transit – Construction of small passenger shelters and information kiosks. Other – Transportation enhancement activities	$20,700,000	2036-2040	$32,722,790	$36,973,025	-	1130
Passenger Boarding Improvements	Various	Ongoing effort to maintain and/or improve the passenger boarding experience. Improvements include additions or replacements of pads, benches, and shelters	Lane Transit District	**Exempt** 40 CFR 93.126, Mass Transit – Construction of small passenger shelters and information kiosks. Other – Transportation enhancement activities	$12,700,000	2041-2045	$23,387,135	$26,424,799	-	1130
				Project Category Subtotal	**$83,075,000**		**$112,627,871**	**$127,256,665**		

CONSTRAINED PROJECTS: BIKE/PED

TABLE 33. PROJECT CATEGORY: MULTI-USE PATHS WITHOUT ROAD PROJECT

PROJECT CATEGORY: MULTI-USE PATHS WITHOUT ROAD PROJECT											
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**	**Federal Functional Class**
Coburg Loop Phase IV	Starts from the "bend" in segment 2; north along the west side of North Coburg Industrial Way; connecting to the Trails End Park	Construct a new multi-Use Path	Coburg	Outside PM10 air quality maintenance area	$800,000	2020-2024	$775,946	$876,730	475	1005	…
McKenzie River Path	42nd Street to 52nd Street	Construct a new multi-use 12 foot wide path from the existing McKenzie Levee path at 42nd St to 52nd St	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$3,700,000	2025-2029	$4,180,579	$4,723,578	1.55	753	Other urban Freeways and Expressways
McKenzie Gateway Path	Extend existing Path to Maple Island Road	Construct a new multi-use 12-foot wide path from the end of the existing Riverbend Hospital path to Maple Island Road	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$3,000,000	2030-2034	$3,948,655	$4,461,531	1.3	759	…
Booth Kelly Road	South 28th Street to South 49th Place	Construct a new multi-use 12-foot wide path from South 28th St to South 49th St	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$2,817,000	2020-2024	$2,732,299	$3,087,186	2.14	921	…
Glenwood Area Willamette River Path (A)	From end of existing path, east of I-5, to Willamette River bridges	Construct a new multi-use 12-foot wide path from the end of the existing path, east of I-5 to Willamette River bridges	Springfield, Willamalane	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$2,500,000	2020-2024	$2,424,830	$2,739,782	1.22	851	…
Springfield - Mt. Pisgah Connector	Middle Fork Path to Buford Park Road	Construct a new multi-Use Path and bridge across the Willamette River	Willamalane, Lane County, Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$4,423,000	2030-2034	$5,821,634	$6,577,784	2.78	960	…
New multi-use path	Flamingo Avenue to Gateway Street south of Game Bird Park	Construct a new 12-foot wide multi-use path	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$70,000	2025-2029	$79,092	$89,365	0.23	711	…
Wayside Loop	Manor Drive to Riverbend Path	Construct a new multi-use 12-foot wide path from Wayside Lane/Ann Court to the existing Sacred Heart Medical Center-Riverbend path	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$80,000	2025-2029	$90,391	$102,131	0.1	759	…
Anderson Lane	By-Gully path to Centennial Blvd.	Add signing and striping on Anderson St and West Quinalt St for bicycle facilities and construct 12-foot wide multi-use path between Anderson Lane and Quinalt St	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$90,000	2030-2034	$118,460	$133,846	0.59	813	…
Glenwood Bicycle / Pedestrian Bridge	Downtown Springfield and Glenwood	Build bridge between Downtown Springfield and Glenwood or modify existing Willamette River Bridges	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$10,300,000	2020-2024	$9,990,301	$11,287,902	0.22	804	…
Haul Road	Daisy Street to Booth Kelly Road	Construct a new multi-use 12-foot-wide path in the Haul Road right-of-way	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$326,000	2020-2024	$316,198	$357,268	0.14	20	…
Haul Road Path	South 49th Place to UGB	Construct a new multi-use 12-foot-wide path	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$3,600,000	2030-2034	$4,738,387	$5,353,837	3.32	21	…
Glenwood Area Willamette River Path (B)	Springfield Bridges to Seavey Loop Road	Construct a new multi-use path	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$2,900,000	2025-2029	$3,276,670	$3,702,263	1.59	854	…
Fern Ridge West Connector	Royal Street to Fern Ridge Path	Construct a new multi-use path	Eugene, Lane County	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$125,000	2020-2024	$121,242	$136,989	0.8	426	
Spring Boulevard Connector	Central Boulevard to Spring Boulevard	Construct a new shared use path	Eugene	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$554,000	2025-2029	$625,957	$707,260	0.22	281	…
Avalon Street	Candlelight Drive to N Danebo	Construct a new multi-use path	Eugene	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$87,000	2030-2034	$114,511	$129,384	0.36	403	…
West Bank Path Completion	Formac to Owosso Bridge	Construct new concrete multi-use path for Riverbank trail system	Eugene	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$900,000	2036-2040	$872,939	$986,322	0.59	556	…
South Bank Path	Autzen Connector to Rail underpass	Construct a new multi-use path	Eugene	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$5,770,000	2036-2040	$5,596,508	$6,323,417	0.51	169	…

PROJECT CATEGORY: MULTI-USE PATHS WITHOUT ROAD PROJECT											
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**	**Federal Functional Class**
E. 30th Avenue Path	Hilyard to Spring	Construct a new multi-use path	Eugene	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$2,749,000	2025-2029	$3,106,057	$3,509,490	1.16	209	Minor Arterial
W. 7th Avenue Path	W. 5th Avenue to Garfield Street	Construct a new multi-use path	Eugene	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$951,000	2025-2029	$1,074,522	$1,214,087	0.4	101	Other urban Freeways and Expressways
I-5 Off-Ramp Path	South Bank Path to Riverview Street	Construct a new multi-use path	Eugene	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$639,000	2025-2029	$721,997	$815,775	0.32	189	Other urban Freeways and Expressways
W. Amazon Drive Path	Martin Street to southern section of W. Amazon Drive	Construct a new multi-use path	Eugene	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$709,000	2030-2034	$687,682	$777,002	0.36	212	...
Division Avenue Sidewalk Path	Lone Oak Ave. to Beaver Street	Construct a new multi-use path	Eugene	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$701,000	2025-2029	$792,050	$894,926	0.54	512	Other urban Freeways and Expressways
Franklin Boulevard Sidewalk Path	Alder Street to Millrace Park Path	Construct a new multi-use path	Eugene	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$273,000	2025-2029	$308,459	$348,523	0.18	122	Other Urban Principle Arterial
West Bank Path Extension	Division Avenue (at Beaver Street) to Wilkes Drive	Construct new concrete multi-use path to extend Riverbank path system	Eugene	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$3,209,000	2025-2029	$3,112,512	$3,516,784	1.62	564	Urban Collector
Beaver-Wilkes Multi-Use Path	Beaver Street to Wilkes street along Eugene's UGB	Construct a separated multi-use path facility	Lane County	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$2,700,000	2025-2029	$3,050,692	$3,446,935	2	170	…
Bob Straub Parkway	57th Street to Jasper Road	Construct multi-use path on both sides of Bob Straub Parkway	Lane County	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$ 3,000,000	2030-2035	$3,948,655	$4,599,838	1.6	410	Minor Arterial
Berkley Park Path	Wilson Street to Fern Ridge Path	Construct a new multi-use path	Eugene	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$521,825	2025-2029	$589,603	$666,184	0.13	TBD**	…
River Road/Santa Clara Pedestrian & Bicycle Bridge	Grove Street to Ruby Avenue	Construct a new pedestrian and bicycle bridge	Eugene	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$12,000,000	2025-2029	$13,558,633	$15,319,711	0.20	TBD**	...
North Delta Path	East side of north Delta Road from Stapp Drive to Ayres Road	Construct a new multi-use path	Eugene	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$600,000	2020-2024	$581,959	$657,548	0.44	TBD**	...
				Project Category Subtotal	**$70,094,825**		**$77,357,420**	**$87,543,378**			

***Note: These projects were added after the maps and the analysis were complete. However, these projects will be included in future mapping and analysis.*

TABLE 34. PROJECT CATEGORY: MULTI-USE PATHS WITH ROAD PROJECT

PROJECT CATEGORY: MULTI-USE PATHS WITH ROAD PROJECT										
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**	**Federal Functional Class**
Beaver Street –Hunsaker Lane	Division Ave to River Road	Construct consistent with Beaver-Hunsaker Corridor Study recommendations	Lane County, Eugene	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$9,300,000	2020-2024	$9,020,369	$10,191,989	1.5	173	…
			Project Category Subtotal		**$9,300,000**		**$9,020,369**	**$10,191,989**			

TABLE 35. PROJECT CATEGORY: ON-STREET LANES OR ROUTES WITH ROAD PROJECT*

PROJECT CATEGORY: ON-STREET LANES OR ROUTES WITH ROAD PROJECT*									
Name	**Geographic Limits**	**Description: Lane or Route Component of Road Project**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost for Entire Project (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**	**Length**	**RTP #***	**Federal Functional Class**
Aspen Street	Menlo Loop to West D Street	Stripe bicycle lanes on the roadway	Lane County, Springfield	See project 809				0.58	809	Minor Collector
42nd Street	Marcola Road to Railroad Tracks	Striped bicycle lane on the roadway	Springfield	See project 713				1.1	713	Minor Arterial
Extend South 48th St to Daisy St	Daisy St and South 48th St	Extend S. 48th St with a two-lane cross-section with a parallel multi-use 12-foot wide path and roundabout intersection treatment at Daisy St and 48th St	Springfield	See project 901				0.3	901	…
28th Street	Centennial Boulevard to Main Street	Stripe bicycle lanes on the roadway	Springfield	See project 909				0.7	909	Urban Collector
35th Street	Olympic Street to Commercial Avenue	Stripe bicycle lanes on the roadway	Springfield	See project 918				0.57	918	Urban Collector
Commercial Street	35th Street to 42nd Street	Stripe bicycle lanes on the roadway	Springfield	See project 933				0.7	933	Urban Collector
S. 28th Street	Main St to South F St	Stripe bicycle lanes on the roadway	Springfield	See project 945				0.51	945	Urban Collector
21st Street	D Street to Main Street	Stripe bicycle lanes on the roadway	Springfield	See project 962				0.2	962	Minor Collector
Green Hill Road	Barger Drive to West 11th Avenue	Stripe bicycle lanes on the roadway	Lane County, Eugene	See project 454				2.27	454	Minor Arterial
			Project Category Subtotal	**NA (part of larger project)**			**NA (part of larger project)**	**NA (part of larger project)**		

**Projects on this list are a lane or route component of roadway projects listed in other categories. For project identification and consistency, projects on this list are associated with the same project number of which they are a component.*

TABLE 36. PROJECT CATEGORY: ON-STREET LANES OR ROUTES WITHOUT ROAD PROJECT

PROJECT CATEGORY: ON-STREET LANES OR ROUTES WITHOUT ROAD PROJECT										
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**	**Federal Functional Class**
66th Street	Thurston Road to Main Street	Stripe bicycle lanes on the roadway	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$25,000	2020-2024	$24,248	$27,398	0.55	12	Minor Collector
S. 67th Street	Ivy Street to Main Street	Add shared-use signing and striping and construct sidewalks to fill gaps	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$160,000	2025-2029	$180,782	$204,263	0.3	92	Minor Collector
S. 70th Street	Main Street to Ivy Street	Add shared-use signing and striping	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$50,000	2025-2029	$56,494	$63,832	0.6	94	Minor Collector
Ivy Street	S. 67th Street to S. 70th Street	Add shared-use signing and striping	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$20,000	2030-2034	$26,324	$29,744	0.3	99	Minor Collector
Yolanda Avenue	23rd Street to 31st Street	Stripe bicycle lanes on the roadway	Springfield, Lane County	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$20,000	2016-2019	$17,169	$18,815	0.8	784	Minor Collector

PROJECT CATEGORY: ON-STREET LANES OR ROUTES WITHOUT ROAD PROJECT										
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**	**Federal Functional Class**
5th Street	Centennial Boulevard to A Street	Add bicycle facility signing and striping	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$50,000	2020-2024	$48,497	$54,796	0.35	806	Urban Collector
Mill Street	Centennial Boulevard to Main Street	Restripe for bicycle facilities with signing	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$90,000	2020-2024	$87,294	$98,632	0.99	837	Urban Collector
Nugget, 15th, 17th, 19th in Glenwood	Glenwood	Stripe bicycle lanes on the roadway	Lane County	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$160,000	2020-2024	$155,189	$175,346	1.58	845	Minor Collector
Rainbow Drive	Centennial Boulevard to West D Street	Restripe for bicycle facilities with signing	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$60,000	2020-2024	$58,196	$65,755	0.55	848	Minor Collector
G Street	5th Street to 28th Street	Stripe bicycle lanes on the roadway	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$75,000	2020-2024	$72,745	$82,193	1.6	899	Major Collector
36th Street	Commercial Street to Main Street	Stripe bicycle lanes on the roadway	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$3,000,000	2020-2024	$2,909,796	$3,287,738	0.3	939	Minor Collector
48th/G/52nd	High Banks Road to Aster Street	Construct a new multi-use 12-foot wide path from High Banks Road to Aster St.	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$1,600,000	2025-2029	$1,807,818	$2,042,628	1.2	6	Urban Collector
Virginia Ave / Daisy Street	South 32nd St to Bob Straub Parkway	Add bicycle facility signing and striping	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$130,000	2020-2024	$126,091	$142,469	2.58	903	Major Collector
Pioneer Parkway	Pioneer Parkway at D, E, and F Streets	Add crosswalks on Pioneer Parkway with signage	Springfield	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$80,000	2020-2024	$77,595	$87,673	…	299	Major Collector
D, E, or F Streets	5th Street to 28th Street	Add bicycle facility signing and striping	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$190,000	2020-2024	$184,287	$208,223	2.52	805	Major Collector
Hartman Lane/Don Street	South of Harlow Road to OR 126	Add signing and striping for bicycle facilities and construct sidewalks to fill gaps	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$180,000	2020-2024	$174,588	$197,264	0.55	714	…
Oakdale Street/Pheasant Street/et al.	Game Farm Road to Gateway Road	Add signing and striping for bicycle facilities	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$80,000	2016-2019	$68,675	$75,261	1.14	708	Minor Arterial
West D	Mill Street to D Street Path	Add bicycle facility signing and striping	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$10,000	2020-2024	$9,699	$10,959	0.36	817	Minor Collector
West D	Aspen Street to D Street Path	Add bicycle facility signing and striping; construct sidewalks to fill gaps	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$190,000	2025-2029	$214,678	$242,562	0.49	816	Minor Collector
A Street	5th Street to 10th Street	Restripe for bicycle facilities with signing	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$40,000	2020-2024	$38,797	$43,837	0.35	822	Major Collector
33rd Street	V Street to EWEB Path	Add shared-use signing and striping	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$10,000	2025-2029	$11,299	$12,766	0.18	724	…
Mountaingate Drive	Mountaingate Entrance to Dogwood Street	Add shared-use signing and striping, construct sidewalks and drainage improvements to fill gaps	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$260,000	2030-2024	$342,217	$284,937	0.77	27	Minor Collector
Hayden BridgeWay/Grovedale Drive	Hayden Bridge Way/3rd Street, Hayden Bridge	Add a crosswalk and RRFB	Lane County	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$260,000	2025-2029	$293,770	$331,927	0.01	721	Major Collector
EWEB Path	Path crossings of 2nd Street, 9th Street, 11th Street, Rose Blossom Drive, Debra Street, 15th Street, 33rd Street and 35th Street	Improve path crossings to emphasize path priority and improve safety	Springfield	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$50,000	2020-2024	$48,497	$54,796	0.76	720	…

PROJECT CATEGORY: ON-STREET LANES OR ROUTES WITHOUT ROAD PROJECT										
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**	**Federal Functional Class**
2nd Street/Q Street	2nd Street/Q Street	Add a crosswalk with RRFB	Springfield	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$90,000	2020-2024	$87,294	$98,632	0	719	Urban Collector
5th Street	At Centennial Boulevard	Add bicycle facilities through the intersection	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$560,000	2020-2024	$543,162	$613,711	0	820	Major Collector
5th Street	@ D Street	Add bicycle facility signing and striping to improve visibility	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$10,000	2025-2029	$11,299	$12,766	0	821	Major Collector
Main Street	@ 38th Street	Add a mid-block crosswalk with a RRFB	Springfield	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$90,000	2030-2034	$118,460	$133,846	0	923	Other Urban Fwys & Expressways
Bob Straub Parkway	@ Daisy Street	Add a pedestrian/bicycle signal and crossing, coordinate with Springfield TSP's R-44	Lane County, Springfield	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$90,000	2020-2024	$87,294	$98,632	0	24	Minor Arterial
Thurston Road	@ 66th Street	Add crosswalk with RRFB	Springfield	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$90,000	2025-2029	$101,690	$114,898	0	28	Urban Collector
Thurston Road	69th Street	Add crosswalk with RRFB	Springfield	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$90,000	2025-2029	$101,690	$114,898	0	29	Urban Collector
Citywide	Citywide	Install mid-block crossings City-wide with RRFBs	Springfield	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$4,400,000	2025-2029	$4,971,499	$5,617,227	0	TBD**	…
Oakway Road	Coburg Road to Cal Young Road	Protected Bike Lane	Eugene	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$2,184,000	2025-2029	$2,118,332	$2,393,474	0.96	604	Minor Arterial
Cal Young Road	Willakenzie Road to Oakway Road	Protected Bike Lane	Eugene	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$508,000	2025-2029	$492,726	$556,724	0.22	605	Minor Arterial
Willakenzie Road	I-5 Path to Cal Young Road	Protected Bike Lane	Eugene	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$3,141,000	2025-2029	$3,046,557	$3,442,262	1.38	607	Urban Collector
River Road	Division Avenue to Northwest Expressway	Protected Bike Lane	Eugene	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$4,441,000	2025-2029	$4,307,468	$4,866,949	2.49	565	Urban Principal Arterial
Garfield Street	Roosevelt Boulevard to W. 6th Avenue	Stripe bicycle lanes on the roadway	Eugene	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$93,000	2020-2024	$90,204	$101,920	0.68	145	Urban Collector
Lincoln Street	W 5th Ave to W 13th Ave	Protected Bike Lane	Eugene	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$1,419,000	2020-2024	$1,376,334	$1,555,100	0.61	161	…
McKinley Street	5th Avenue to 7th Avenue	Stripe bicycle lanes on the roadway	Eugene	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$26,000	2020-2024	$25,218	$28,494	0.19	163	Urban Collector

PROJECT CATEGORY: ON-STREET LANES OR ROUTES WITHOUT ROAD PROJECT										
Name	**Geographic Limits**	**Description**	**Primary Jurisdiction**	**Air Quality Status**	**Est. Cost (2021)**	**Est. Year of Construction (5-Year Window)**	**Year of Construction Cost Range**		**Length**	**RTP #**	**Federal Functional Class**
Mill Street	10th Avenue to 15th Avenue	Stripe bicycle lanes on the roadway	Eugene	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$91,000	2020-2024	$88,264	$99,728	0.76	166	…
Polk Street	5th Avenue to 24th Avenue	Stripe bicycle lanes on the roadway	Eugene	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$250,000	2020-2024	$242,483	$273,978	1.0	175	Urban Collector
High Street	E 6th Avenue to E 19th Avenue	Protected Bike Lane	Eugene	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$2,267,000	2020-2024	$2,198,836	$2,484,434	0.99	187	Minor Arterial
High Street	E 4th Avenue to E 6th Avenue	Bike Lane	Eugene	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$16,500	2020-2024	$16,004	$18,083	0.15	186	Minor Arterial
8th Avenue	Lincoln St to E Broadway	Protected Bike Lane	Eugene	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$1,221,000	2020-2024	$1,184,287	$1,338,110	0.53	162	Urban Collector
E 24th Avenue	Willamette Street to Alder Street	Protected Bike Lane	Eugene	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$1,189,000	2020-2024	$1,153,249	$1,303,040	0.52	201	Minor Arterial
Prairie Road	Maxwell Road to Highway 99	Stripe bicycle lanes on the roadway	Eugene	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$19,000	2020-2024	$18,429	$20,822	0.15	495	Minor Arterial
Gilham Road	Ashbury to Ayers Road	Stripe bicycle lanes on the roadway	Eugene	**Exempt** 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	$83,000	2020-2024	$80,504	$90,961	0.61	662	Minor Collector
Valley River Way (A)	Valley River Drive to Valley River Connector	Sidewalk Path	Eugene	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$465,000	2025-2029	$451,018	$509,599	0.23	694	Urban Collector
Franklin Blvd.	Brooklyn to Willamette River	Stripe bicycle lanes on the roadway	Springfield	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$34,000	2020-2024	$32,978	$37,261	0.25	807	Other Urban Principal Arterial
McVay Highway (OR99)	I-5 to 30th Ave	Stripe bicycle lanes on the roadway	ODOT	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$96,000	2020-2024	$93,113	$105,208	0.71	834	Urban Minor Arterial
Highway 99	Prairie Rd to Barger Dr	Stripe bicycle lanes on the roadway	Eugene	**Exempt** 40 CFR 93.126, Air Quality – Bike and ped facilities	$44,000	2020-2024	$42,677	$48,220	0.33	TBD**	Other Freeways and Expressways
				Project Category Subtotal	**$31,797,500**		**$32,055,678**	**$36,114,617**			

***Note: These projects were added after the maps and the analysis were complete. However, these projects will be included in future mapping and analysis.*

CHAPTER 6: MEASURING PLAN OUTCOMES

This chapter reports on the comprehensive evaluation of Plan performance using the federal and regional performance measures, introduced in Chapter 2. Evaluating the performance of the region's transportation system is necessary to understand whether the region will achieve the goals of this RTP and provide the best return on public investments.

PERFORMANCE BASED PLANNING AND PROGRAMMING

Performance measures serve as the link between RTP goals and Plan implementation. The cyclical performance measurement process includes Plan development, evaluation, implementation, and monitoring. Evaluation of the planned regional transportation system projects and programs against a set of outcomes-focused performance measures provides valuable information to the public and decision-makers on whether the RTP investment decisions are helping achieve the desired outcomes. See Chapter 2 for additional discussion of performance measures; the federal performance measure and targets; the state-set targets for federal performance measures (supported by CLMPO); and the list of regional performance measures used for Plan evaluation, including the goals that they support.

As detailed in Chapter 2, the CLMPO uses performance-based planning and programming as an effective way to understand the consequences and benefits of investment and programming decisions. As part of this process, the RTP's goals, objectives, and performance measures provide a strategic direction and help guide regional transportation planning and decision-making.

SYSTEM PERFORMANCE EVALUATION

The system evaluation process will be used during subsequent RTP updates, which under federal law occur every four years (based on air quality designation as an attainment area;[60] see Appendix I for information on the region's air quality status). For the current and future updates, the CLMPO will review its goals and objectives for the regional transportation system and develop and refine an investment strategy that includes regional infrastructure projects and programs.

The RTP system measures changes between current conditions (2020) and the 2045 planning horizon for the transportation projects identified in the fiscally constrained project list (Chapter 5). It is important to note that there are some limitations to evaluating the RTP within the performance measures framework. While it does aid significantly in monitoring and evaluating system performance, there are some nuances that are not captured in the future year analysis because the data to analyze them are not available; most specifically in the TO programming, TDM efforts, and ITS related strategies.

PERFORMANCE METHODOLOGY AND MODELING

The performance measures included in this Plan were evaluated using a combination of tools and methods to provide a more robust analysis. To measure the effectiveness of the project list identified in Chapter 5, each performance measure is reported for the current year (2020) and the future year (2045), which assumes complete build out of the fiscally constrained project list. These

[60] National Ambient Air Quality Standard (NAAQS)

results will help the CLMPO understand how the transportation system is serving the needs of the region, and where additional attention should be focused in future Plan and project list updates.

A new regional travel demand model and land use allocation model were developed for this RTP. Both are consistent with the local partners' comprehensive land use plans and transportation system plans to model the future conditions of the system. Other datasets, including Streetlight and Regional Integrated Transportation Information System (RITIS) were used to supplement evaluation of existing system performance and conditions. Streetlight and RITIS include sampled and aggregated real-world data about travel in the region. These sampled data are available through various technology sources including in-dash navigation systems and mobile phones.

A pedestrian crossing with Rectangular Rapid Flashing Beacons.

Regional Travel Model

The newly developed regional travel model is a four-step travel model and has a framework modeled after the Portland Metro MPO's Kate model.

The CLMPO travel demand model is built on a EMME software platform and uses the typical four-step modeling process to determine the total trips, which route and mode they are likely to take:

- Trip Generation – Households are the primary producer of trips and employment sites are the primary attractors. The productions and attractions are converted to vehicle trips that enter and leave each zone.
- Trip Distribution – Determining in which zone a trip might end, the trip distribution examines the attractiveness of zones based on proximity and travel time. The higher a zone's attractiveness, the larger the gravitational pull.
- Mode Choice – Several modes of transportation are offered within the travel demand model. The mode choice step accounts for whether people drive alone, carpool, walk, bike or use transit.
- Assignment – During the trip assignment step, it is determined which path each respective trip will take from its zone of origin to its destination.

The new model includes the following enhancements relative to prior model generations:

- Household survey data update
- New land use allocation method (UrbanSim)
- University model (including group quarters)
- Bike model update

These enhancements allow the model to better capture existing travel trends related to where trips begin/end and the mode of travel. In general, the travel demand model replicates roadway networks, captures driver and transit rider travel behavior, and uses algorithms calibrated to local conditions to analyze future roadway infrastructure needs. The travel demand model uses a supply and demand principle and requires input from multiple datasets:

- The supply side uses information on the existing roadway network and transit routes, which determine capacity, trip volume, and travel speed. Roadway information needed includes functional classification, number of lanes, and type of intersection control. Transit information needed includes routes, service hours, and service frequencies.
- The demand side is represented through various socioeconomic datasets about the region's population and employment. Population information needed includes the number of people, location of households, and income. Employment information needed includes the number of workers by employment site and type, and major sector.

CLMPO staff developed population and employment data for both the 2020 base and the 2045 forecast year. All socioeconomic and land use data are represented in the models in transportation analysis zones (TAZs).[61] Interaction among the region's 666 TAZs occurs as each zone produces and attracts person trips. The population, household, and employment information assigned to each zone determines the number of trips that are produced and/or attracted. The generated trips are for various purposes, such as work, school, and more, and the number per household and breakout by purpose is calibrated throughout the CLMPO region.

Once the travel demand model produces ridership and traffic volumes, internal model rules are calibrated by adjusting factors and components until it replicates known travel patterns. During the travel demand model validation, modeled transit usage and traffic volumes are compared to actual ridership and traffic counts. Once the modeled results match the traffic counts, within an acceptable range of error, the model is ready for use. See Appendix K for a detailed "model cookbook" documenting the CLMPO travel demand model.

Land Use Model

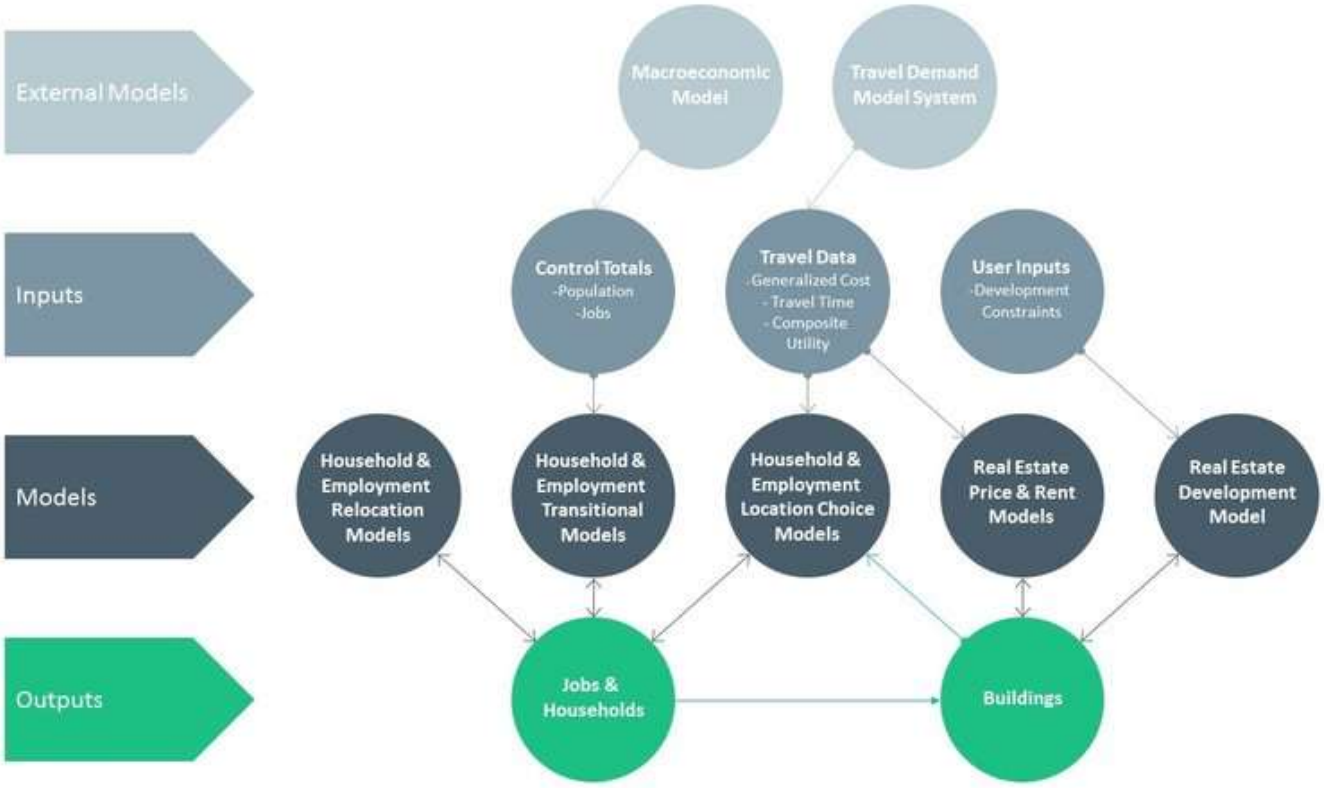
The newly developed land use allocation model is created by UrbanSim. UrbanSim simulates real estate markets by representing the choices of individual households and businesses (or jobs) making location choices. Locations and buildings can be represented at full detail, meaning individual buildings and individual parcels, or can be aggregated into building types and Census blocks or zones to represent locations.

[61] Defined units of geography, or areas, used in travel demand modeling to represent spatial distribution of trip origins and destinations. They also contain population, employment, and other spatial attributes important to impact travel demand.

UrbanSim models are built using local data for each metropolitan area, and the parameters for each model are estimated using advanced statistical methods to ensure that the model actually reflects local conditions. The model structure is such that households and businesses (jobs) move and make location choices as the regional economy grows, and real estate developers add housing and nonresidential buildings in response to changes in demand and subject to local development constraints. Price and rent models predict the pricing outcomes in the real estate market and adjust to reconcile shifts in demand and supply. Figure 46 uses a simplified flowchart to illustrate this process.

The land use allocation model supplies the base and future year population, household, and employment information to the travel model. See Appendix L for documentation on the CLMPO land use allocation model.

FIGURE 46. URBANSIM MODEL STRUCTURE ILLUSTRATION



FUTURE GROWTH TRENDS

Population and employment are forecasted to grow through 2045, placing increased demands on the region's transportation system. These changes in travel demands may require evolving system management, more choices for getting around, and targeted improvements to make the system safer and more efficient. These decisions ultimately influence the modes people have as an option and the routes people may take to get to their destinations. Forecasting the scale and location of future growth is critical to evaluating the transportation system.

Oregon land use planning regulations require each city to have an urban growth boundary (UGB) to foster compact urban growth and preservation of agricultural and forest lands. The RTP reflects and supports the land uses and growth allocations within the UGBs of the cities of Eugene, Springfield, Coburg, and a small additional portion of Lane County adjacent to these urban areas.

The current estimates and 2045 future year projections of population and employment used in the system performance analysis for the CLMPO area are summarized in the following sections. These assumptions about regional population and employment are incorporated into the regional travel demand model to forecast travel growth and conditions for the region.

Population Growth

Portland State University's PRC Certified Population Estimates serve as consistent statewide population forecasts, including the baseline and 2045 forecasted population for Lane County, Eugene, Springfield, and Coburg. Since the CLMPO boundary extends into unincorporated Lane County but does not cover the entire County, the current and forecasted population of this area was adjusted to include only the number of people inside the MPO area.

As shown in Table 37, CLMPO is expected to continue growing through 2045. As of 2016, CLMPO's population was 267,981. By 2045, the population is forecasted to grow to 320,684, a 20 percent increase. Coburg and Eugene are expected to have the largest population growth percentagewise, with a 53 percent and 24 percent increase, respectively.

TABLE 37. REGIONAL POPULATION GROWTH FORECAST

JURISDICTION	2016 ESTIMATE	2045 FORECAST	PERCENT CHANGE
LANE COUNTY UNINCORPORATED*	8,121	8,705	7%
COBURG	1,104	1,694	53%
EUGENE	189,135	233,625	24%
SPRINGFIELD	69,621	76,660	10%
CLMPO TOTAL	267,981	320,684	20%

Source: Population Research Center, Portland State University, 2015, 2019, American Community Survey 5-Year Estimates; LCOG 2020.

** Unincorporated Lane County area IS LOCATED inside the MPO Modeling area. THE MPO MODELING AREA IS SLIGHTLY larger THAN the MPO area, AND INCLUDES THE UNINCORPORATED LANE COUNTY AREA, COBURG, EUGENE, AND SPRINGFIELD.*

The densest areas in 2045 will likely still be within Eugene's urban core and the area around the University of Oregon campus. Other areas with high population densities will include the western area and along Highway 126 in Springfield and northern and western Eugene as seen in Figure 47. The projected areas of growth indicate where additional density is projected to occur relative to existing development.

Employment Growth

By 2045, the region is expected to have 177,263 jobs as projected by the Oregon Employment Department and LCOG to capture job growth specific to the MPO boundary. This is a 39 percent increase from the current employment of 127,788 jobs, which outpaces the projected population increase of 17 percent. The urban areas have projected employment growth of approximately 40 percent, with growth in the unincorporated Lane County area approximately 33 percent. Regional employment growth forecasts are summarized in Table 38.

Most of these jobs are projected to be in Eugene's urban core near the University of Oregon. A high density of jobs is also concentrated in north Springfield between I-5 and the McKenzie River, and along the north side of the Willamette River in Eugene. In addition, employment is expected to grow significantly from 2020 around Eugene Airport between Highway 99 & Clear Lake Road as well as Highway 126 and S A Street between Randy Papé Beltline and 42nd Street (Figure 48).

TABLE 38. REGIONAL EMPLOYMENT GROWTH FORECAST (EMPLOYEES)

JURISDICTION	2016 ESTIMATE	2045 FORECAST	PERCENT CHANGE
LANE COUNTY UNINCORPORATED*	5,032	6,716	33%
COBURG	1,533	2,121	38%
EUGENE	89,184	122,855	38%
SPRINGFIELD	32,039	45,571	42%
CLMPO	127,788	177,263	39%

Source: OED 2018; LCOG 2020.

**Unincorporated Lane County area is located inside the MPO Modeling area. The MPO modeling area is slightly larger than the MPO area, and includes the Unincorporated Lane County Area, Coburg, Eugene, and Springfield.*

FIGURE 47. FORECASTED 2045 HOUSEHOLD HIGH DENSITY LOCATIONS AND GROWTH AREAS

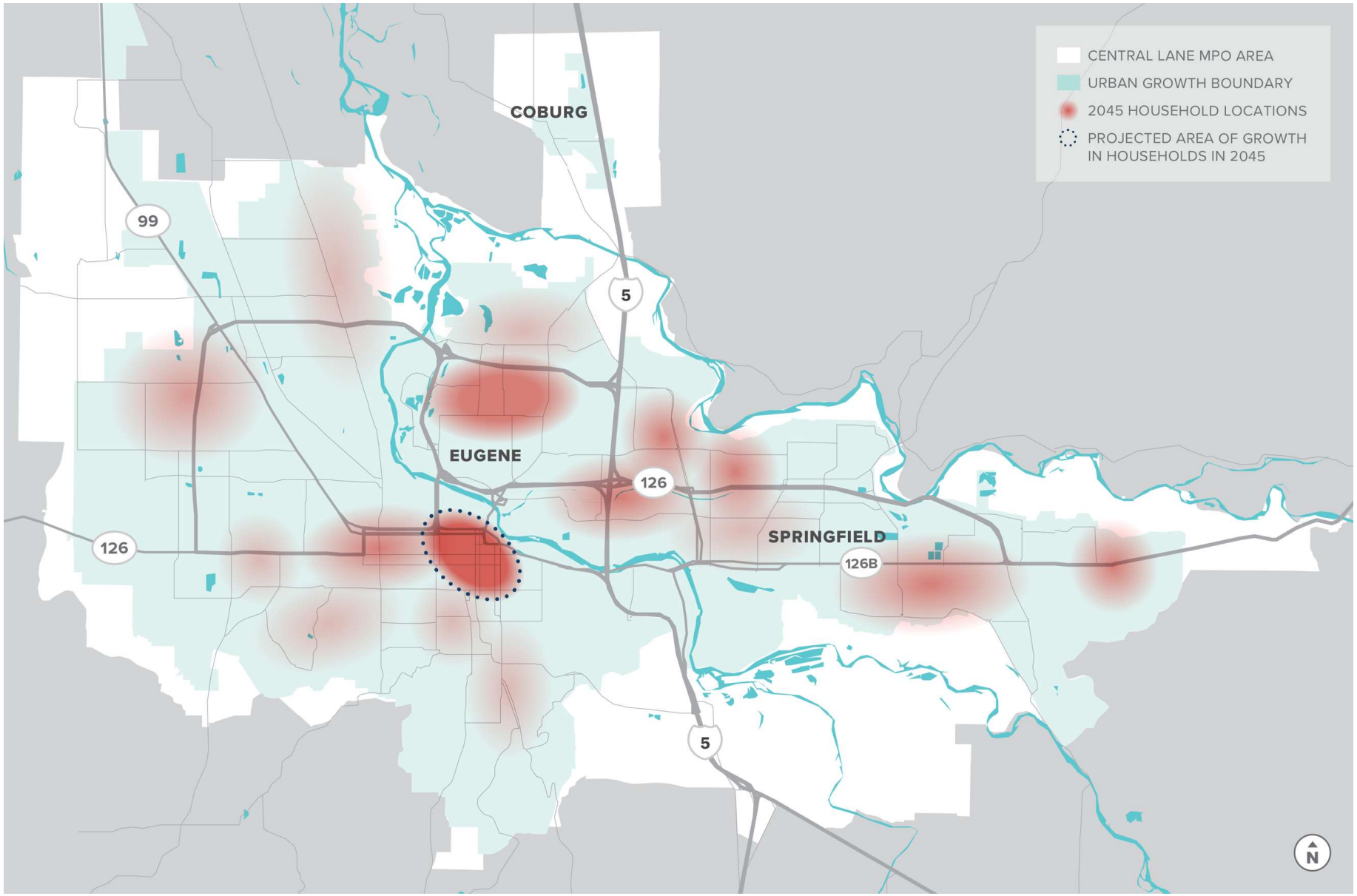
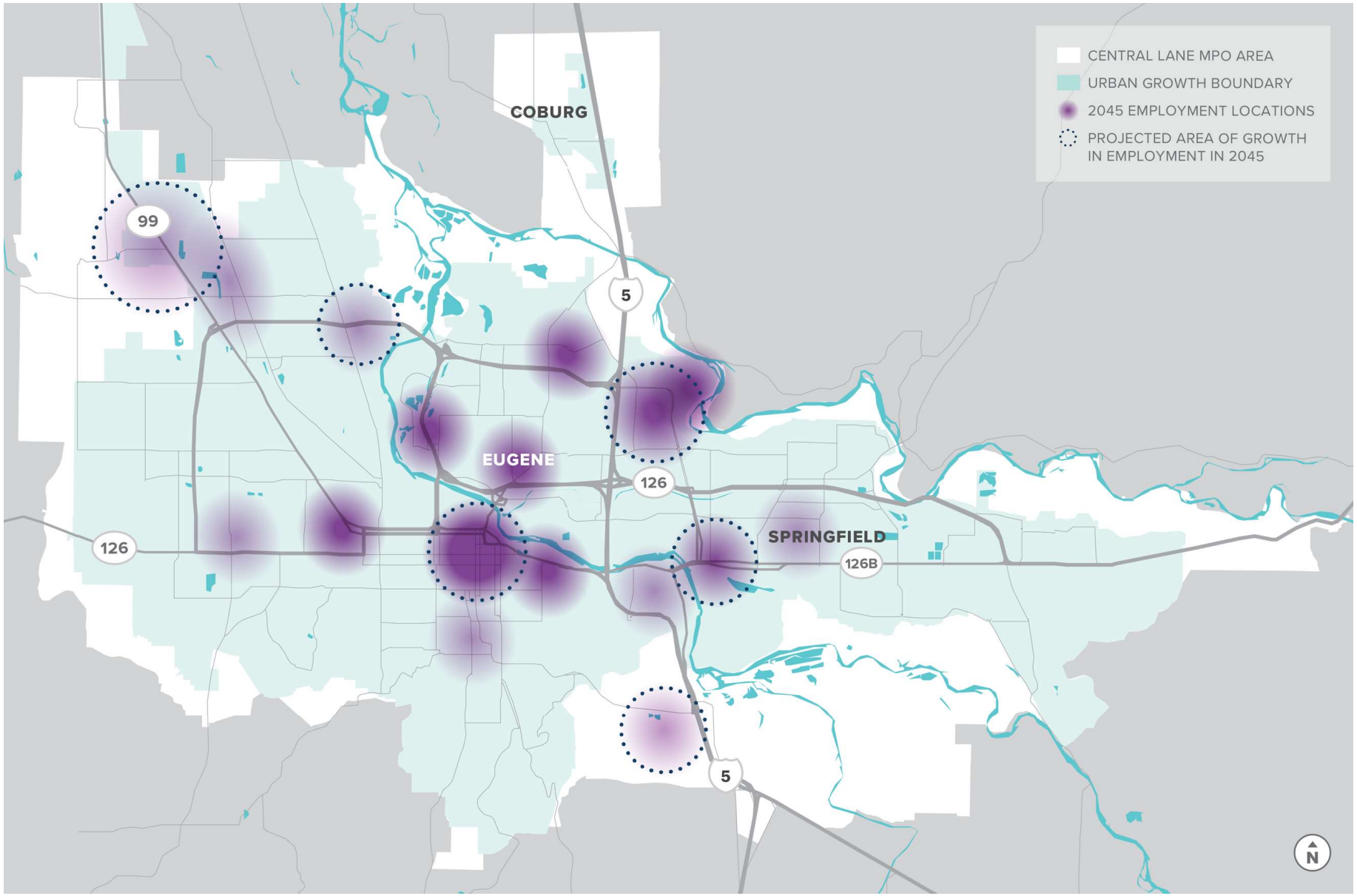


FIGURE 48. 2045 FORECASTED EMPLOYMENT HIGH DENSITY LOCATIONS AND GROWTH AREAS



FEDERAL PERFORMANCE MEASURE EVALUATION

MAP-21 and the FAST Act required USDOT to establish transportation performance measures related to safety, pavement and bridge condition, system performance, and CMAQ funded projects. Refer to Chapter 2 for an overview of these performance measures.

Table 39 reports state and CLMPO performance against federal performance measures and targets. At a statewide level, each target is met by the current baseline measurement. At the CLMPO level, the data used to establish each performance measure baseline have a lot of variability. This is evidenced in performance measures 4, 5 and 6. CLMPO's current baseline status does not meet the target. By supporting the state targets, the MPO will work with ODOT and local jurisdictions as part of a statewide effort to plan for and fund projects that try to achieve the targets. Additional years of data to come in the future may also find that the CLMPO will meet these targets.

Pedestrians cross the street at a pedestrian crossing.

TABLE 39. FEDERAL PERFORMANCE MEASURES AND TARGETS

PERFORMANCE MEASURE	TARGET	CLMPO/STATE BASELINE	DATA SOURCE
PAVEMENT CONDITIONS			
1. PERCENTAGE OF PAVEMENTS OF THE INTERSTATE SYSTEM IN GOOD CONDITION	35%	61% (46% statewide)	Highway Performance Monitoring System (HPMS)
2. PERCENTAGE OF PAVEMENTS OF THE INTERSTATE SYSTEM IN POOR CONDITION	0.5%	0% (0.1% statewide)	HPMS
3. PERCENTAGE OF PAVEMENTS OF THE NON-INTERSTATE NHS IN GOOD CONDITION	50% (2 yr), 50% (4 yr)	50% (64% statewide)	HPMS
4. PERCENTAGE OF PAVEMENTS OF THE NON-INTERSTATE NHS IN POOR CONDITION	10% (2 yr), 10% (4 yr)	11% (6.5% statewide)	HPMS
BRIDGE CONDITION			
5. PERCENTAGE OF NHS BRIDGES BY DECK AREA CLASSIFIED AS IN GOOD CONDITION	10%	5%* (13.8% statewide)	National Bridge Inspection Standard
6. PERCENTAGE OF NHS BRIDGES BY DECK AREA CLASSIFIED AS IN POOR CONDITION	3%	5% (2.2.% statewide)	National Bridge Inspection Standard
NATIONAL HIGHWAY SYSTEM PERFORMANCE			
7. PERCENT OF THE PERSON-MILES TRAVELED ON THE INTERSTATE THAT ARE RELIABLE (INTERSTATE TRAVEL TIME RELIABILITY)	78%	98.7% (81% statewide)	National Performance Management Research Data Set (NPMRDS) and HPMS
8. PERCENT OF THE PERSON-MILES TRAVELED ON THE NON-INTERSTATE NHS THAT ARE RELIABLE (NON-INTERSTATE TRAVEL TIME RELIABILITY)	78%	90.4% (84% statewide)	NPMRDS and HPMS
FREIGHT MOVEMENT ON INTERSTATE SYSTEM			
9. TRUCK TRAVEL TIME RELIABILITY (TTTR) INDEX (FREIGHT RELIABILITY)	1.45**	1.25 (1.36 statewide)	Truck Travel Time Reliability measured from the NMPRDS
CONGESTION MITIGATION AND AIR QUALITY ON ROAD MOBILE SOURCE EMISSIONS			

PERFORMANCE MEASURE	TARGET	CLMPO/STATE BASELINE	DATA SOURCE
10. TOTAL EMISSIONS REDUCTION OF PM-10 FROM FUNDED CMAQ PROJECTS	PM-10 363 (2 yr kg/day), PM-10 726.4 (4 yr kg/day)	NA (520.469 statewide)***	Air Quality CMAQ Public Access System

** The mid-sized and small MPOs all have between 0 and 10 percent in good condition.*
*** The freight performance measure assesses the reliability of travel time for trucks on the Interstate system by comparing days with extremely high delay to days with average delay. To determine the reliability of a segment, the TTTR measure is calculated as the ratio of the longer travel times (95th percentile) to a "normal" travel time (50th percentile). The TTTR's of interstate segments are then used to create the TTTR Index for the entire Interstate system and the CLMPO portion using a weighted aggregate calculation for the worst performing times of each segment. The higher the ratio, the worse the reliability.*
**** Calculated as sum of emissions reductions from all projects funded with CMAQ dollars from 2014 to 2017. Central Lane and Salem-Keizer MPO did not receive CMAQ funding during this period and, therefore, were not included but will be moving forward. 4-year target values reflect estimated emissions benefits for projects that are currently programmed in the STIP for 2018-2022. 2-year target values are set as one-half of the 4-year target.*

REGIONAL SYSTEM PERFORMANCE EVALUATION OUTCOMES

The following sections provide analysis of each of the 13 regional performance measures. Each measure has an icon bar with an arrow showing its intent or direction needed to go to meet the RTP goals and a circle with a fill amount to show whether or not it meets the intent. Vehicle miles traveled, for example, would need to go down (direction) to meet the RTP's goals (intent). However, the total vehicle miles traveled is forecasted to increase with the RTP's current fiscally constrained project list. It must be noted that data and tools available at this time are not sophisticated enough to capture the strategies and efforts around TO, TDM, and ITS that help to move the dial on these measures towards the region's expected direction. Additionally, the analysis is limited to the RTP's fiscally constrained project list. Additional funding would also help to move the needle on meeting the RTP's goals.

Data sources used for performance measures are referenced in each measure and include:

- CLMPO regional travel demand model (and land use inputs from the land use model)
- Regional Integrated Transportation Information System (RITIS)
- LCOG Geographic Information System (GIS) Databases
- Field confirmation

Transportation data sources continue to increase with the emergence of connected vehicles and technology advancement. CLMPO would like to continue exploring the use of emerging data sources and advancement in transportation data collection technology.

Miles Traveled

Description: System-wide number of miles traveled (total and share of overall travel) within the CLMPO area

Measures:

- Vehicle miles traveled (VMT) (total, per capita, per employee)
- Freight miles traveled (total, per capita, per employee)
- Transit miles traveled (total, per capita, per employee)

Data Source: Travel demand model

Findings: Table 40 indicates the total daily miles traveled for all vehicles completing trips that start and end within the CLMPO area in 2020 and 2045. These data are also summarized per capita (person) and per employee. The trips that begin and end within the region represent those that can be more directly influenced with land use and transportation policies, programs, and projects. As shown in **Error! Reference source not found.**, vehicle miles traveled within the CLMPO are increase in the future. The 6% increase in VMT per capita indicates a combination of increased trips per person and increased average trip length.

TABLE 40. TOTAL DAILY VEHICLE MILES TRAVELED FOR INTERNAL (STARTING AND ENDING WITHIN CLMPO) TRIPS

VEHICLE MILES TRAVELED	2020 BASE YEAR	2045 FUTURE YEAR	CHANGE
TOTAL	3,230,936	4,006,861	+24%
PER PERSON	11.7	12.5	+6%
PER EMPLOYEE	24.3	22.8	-6%

Regional trips into, out of, and through the region also contribute to travel on the vehicular network. Table 41, Table 42, Table 43, and Table 44 indicate how total miles traveled for all vehicles, passenger vehicles, freight, and transit are predicted to change between 2020 and 2045. Overall vehicle miles traveled (total auto, freight, and transit miles traveled) per capita is expected to increase in the future. By 2045, transit miles traveled per person is forecasted to increase by 25 percent from 0.04 to 0.05, and total vehicle miles traveled per person increases by about 10 percent, from 18.8 to 20.8 between 2020 and 2045. Miles traveled by any mode are higher per employee than per capita.

The trends shown in Table 43 indicate that freight will become an increasingly large amount of the traffic for the CLMPO regional roadway system. An increase in freight traffic helps support economic vitality in the region as well as ensuring all residents are getting the goods they need from both within and outside of the region.

TABLE 41. TOTAL DAILY VEHICLE MILES TRAVELED (PASSENGER, FREIGHT, AND TRANSIT)

VEHICLE MILES TRAVELED	2020 BASE YEAR	2045 FUTURE YEAR	CHANGE
TOTAL	5,167,710	6,657,335	+29%
PER PERSON	18.8	20.8	+11%
PER EMPLOYEE	38.7	37.8	-2%

TABLE 42. TOTAL DAILY PASSENGER AUTO VEHICLE MILES TRAVELED

PASSENGER AUTO VEHICLE MILES TRAVELED	2020 BASE YEAR	2045 FUTURE YEAR	CHANGE
TOTAL	4,245,644	5,405,992	+27%
PER PERSON	15.4	16.9	+10%
PER EMPLOYEE	31.8	30.7	-3%

TABLE 43. TOTAL DAILY FREIGHT MILES TRAVELED

FREIGHT MILES TRAVELED	2020 BASE YEAR	2045 FUTURE YEAR	CHANGE
TOTAL	911,793	1,235,888	+36%
PER PERSON	3.3	3.9	+18%
PER EMPLOYEE	6.8	7.0	-3%

TABLE 44. TOTAL DAILY TRANSIT MILES TRAVELED

TRANSIT MILES TRAVELED	2020 BASE YEAR	2045 FUTURE YEAR	CHANGE
TOTAL	10,272	15,454	+50%
PER PERSON	0.04	0.05	+25%
PER EMPLOYEE	0.08	0.09	+13%
PER PASSENGER	0.27	0.22	-19%

A parking garage in downtown Eugene.

Travel Time

Description: Travel time between key origins and destinations

Measures:

- Motor vehicle travel time between key regional origin-destination pairs
- Freight travel time between key freight origin-destination pairs
- Transit travel time between key origin-destination pairs

Data Source: Travel demand model, Streetlight, RITIS, and ACS data

Findings: Several corridors throughout the region are regional corridors, shown in Figure 49. These regional corridors are critical for connecting travel between important origins and destinations. Measuring travel time along corridors of interest is used to understand how the time it takes travelers to access jobs, services, and recreational activities changes over time. It can be helpful to understand where the most significant increases in travel times are occurring so that future projects, programs, and policies can attempt to maintain or improve the flow of traffic today and in the future.

For the travel time performance measure, travel times were observed using real-time probe data through the RITIS platform. The platform uses disaggregated Bluetooth location data from passenger and freight vehicles to calculate travel speeds, travel times, and more on roadways throughout the state of Oregon. These data established the existing travel times for these corridors. The regional travel model was used to compare the change in future 2045 travel time relative to the existing year model. The resulting corridor summaries are shown in Figure 50 (Passenger Vehicle and Freight Corridors) and Figure 51 (Transit Corridors).

In nearly all locations, travel times increase between 2020 and 2045. Travel times are projected to increase for the passenger vehicle and freight corridors overall by approximately ten percent (generally ranging from five to sixteen percent). The most significant increase identified is along I-5, where travel times are projected to increase approximately 25 percent by 2045.

Transit travel time changes are projected to be more nuanced, with travel on some corridors (or directions of travel) having nominal increases or even projected decreases (improvements) relative to existing travel time. Travel time on Main Street (OR 126) east of Bob Straub and Main Street/South A Street (including couplet) is projected to decrease by approximately 25 percent with planned service enhancements along this corridor.

In the future, consideration for additional performance measures may include pedestrian and bicycle travel time to measure the convenience of these travel modes. Continued updates to the regional travel demand model and availability of new data sources may enable these summaries.

FIGURE 49. REGIONAL CORRIDORS OF INTEREST FOR TRAVEL TIME SUMMARY

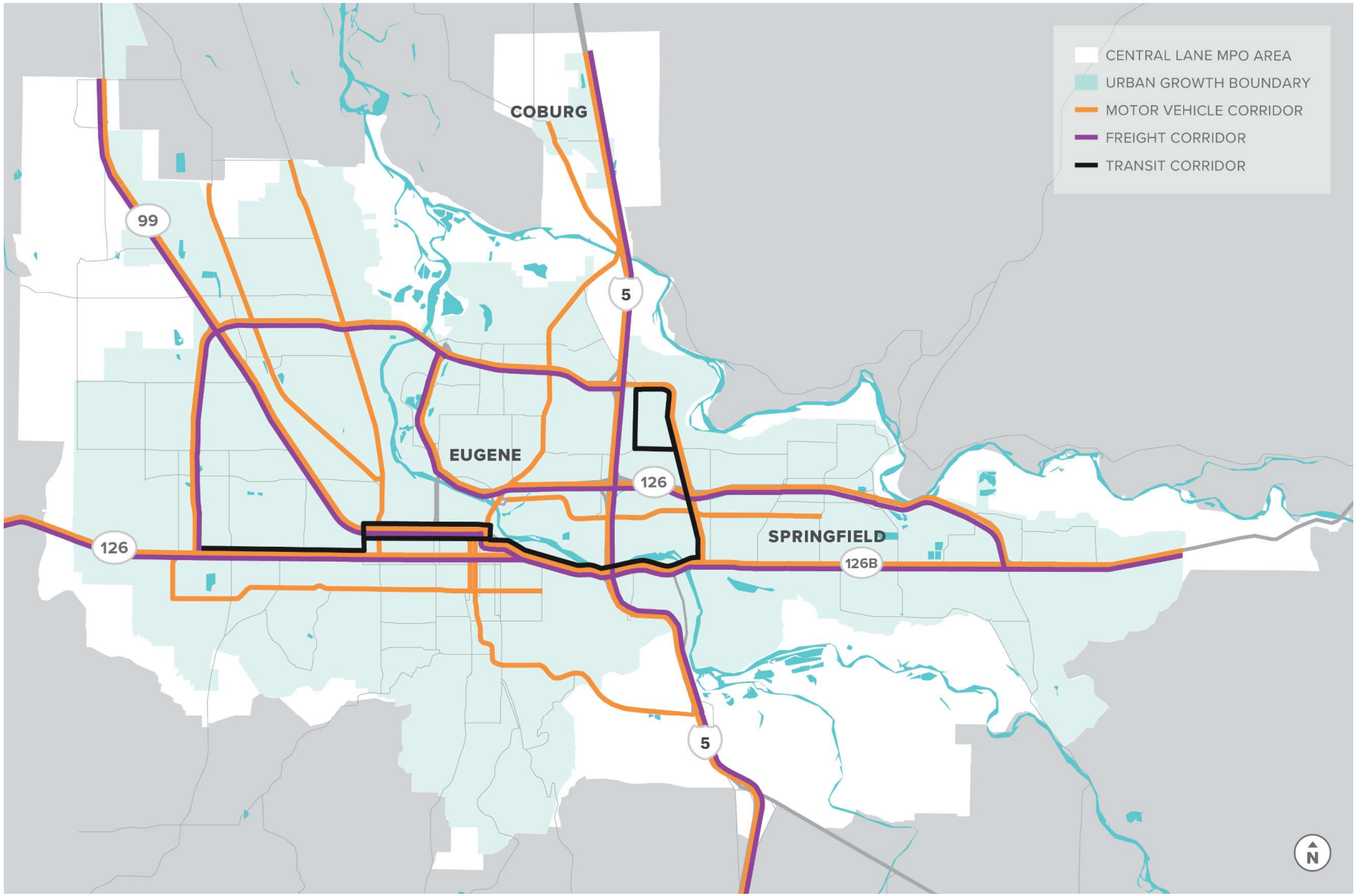


FIGURE 50. REGIONAL TRAVEL TIME INCREASE FROM 2020 TO 2045 (PASSENGER VEHICLE AND FREIGHT CORRIDORS)

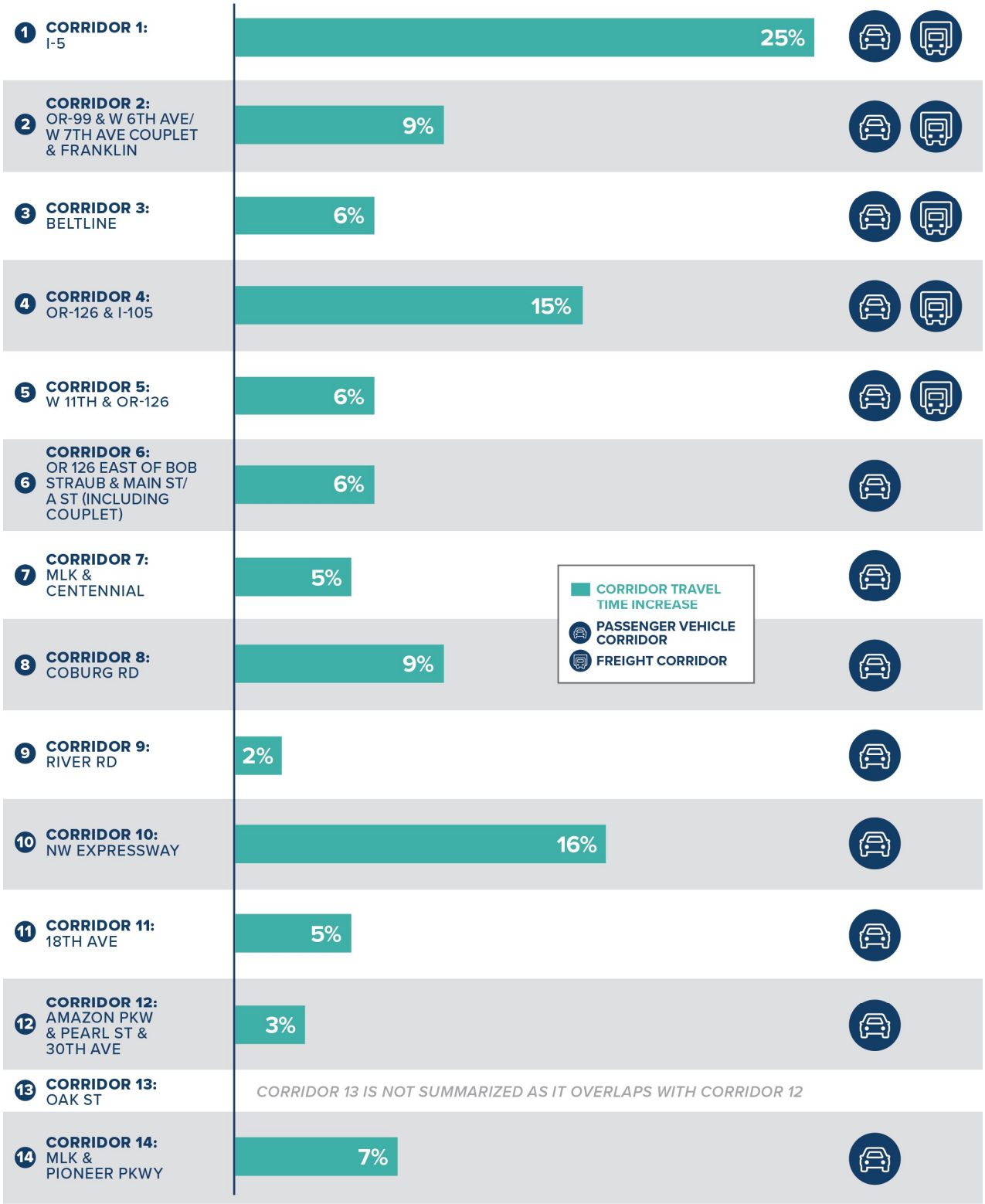
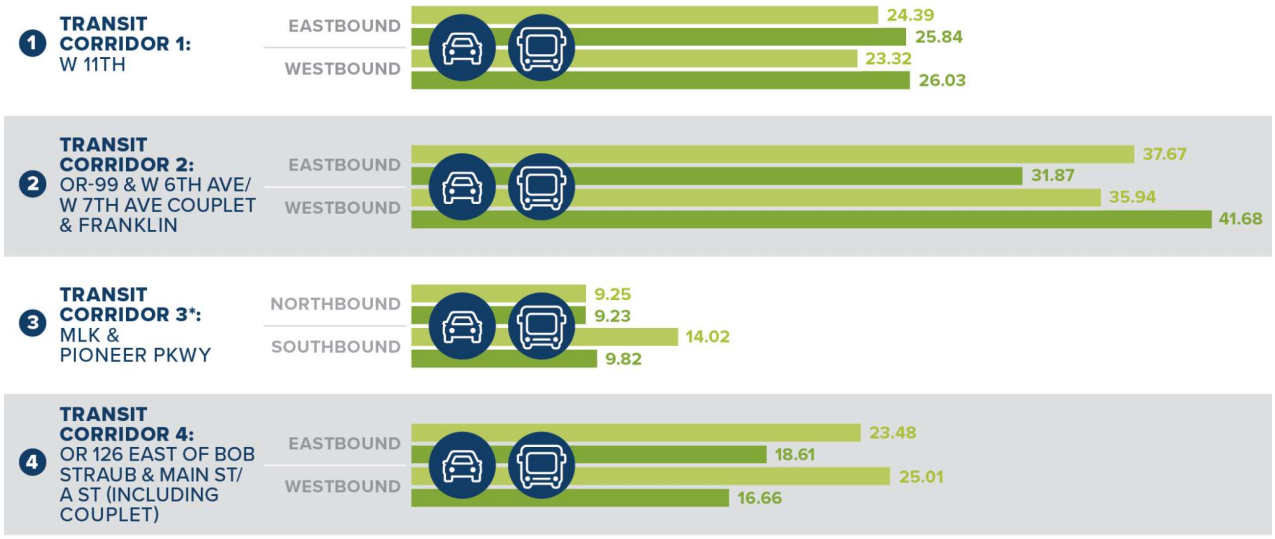
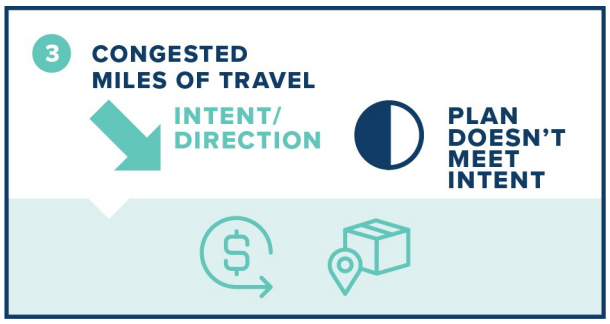


FIGURE 51. REGIONAL TRAVEL TIME SUMMARY BY TRANSIT CORRIDOR (MINUTES)



**The model has EmXa and EmXb in Base Year; and XNSa and XNSb in year 2045 coded parallel on Beltline/ MLK/ Pioneer Way. So a rider in the model has alternative travel times. The two routes in the model change routing while looping in northern terminus. The total here reflects the fastest time.*

Congested Miles of Travel Network



Description: Miles of congested or severely congested regional corridors.

Measures:

- Miles of congested regional corridors
- Miles of severely congested regional corridors

Data Source: Travel demand model

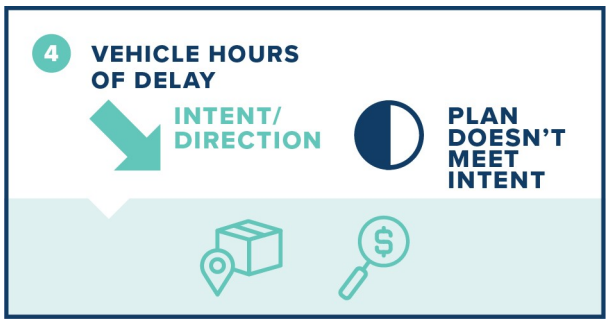
Findings: This performance measure helps highlight how often travelers in the region are experiencing congestion based on travel during the weekday evening peak period. For this measure, a *congested corridor* is defined as a corridor where the volume-to-capacity (v/c) ratio is equal to or greater than 0.90 and less than 1.0. *Severely congested* corridors are defined as having volume-to-capacity ratios over 1.0. Table 45 shows the cumulative regional congestion increasing between today and 2045. The related Congestion measure (appears later in this chapter) indicates the specific locations within the region that are projected to be congested.

TABLE 45. CONGESTED MILES OF TRAVEL

CONDITION	CURRENT YEAR (2020)	FUTURE YEAR (2045)	CHANGE
ALL ROADS (MILES)	1,284	1,360	+5.9%
CONGESTED ROADS (MILES)	11	36	+227.2%
SEVERELY CONGESTED ROADS (MILES)	13	22	+69.2%
PORTION CONGESTED (%)	0.9%	2.7%	+1.8%
PORTION SEVERELY CONGESTED (%)	1.0%	1.6%	+0.6%

Growth in segments of congested and severely congested conditions will outpace the increase in new roadway network. While an increase in the amount of time travelers will spend in congestion is expected to occur, the effects of regional congestion are still overall limited as over 95 percent of miles are driven in uncongested conditions.

Vehicle Hours of Delay (VHD)



Description: VHD is the magnitude of congestion accounting for both the degree of delay and the volume of delayed traffic at those locations.[62]

Measures:

- Passenger VHD
- Truck VHD

Data Source: Travel demand model

Findings: This performance measure is sensitive to both the number of vehicles that are experiencing delay, as well as the degree of delay for each vehicle. This measure combines (multiplies) those factors to highlight where the highest volumes of people are spending time in congestion and provides the ability to target critical congestion locations. Table 46 lists the sum of daily VHD by vehicle type. As traffic volumes and delays on the regional network grow, the total VHD will increase approximately 75 percent for passenger vehicles and 117 percent for trucks.

TABLE 46. REGIONAL VEHICLE HOURS OF DELAY (VHD) - PM PEAK HOUR PER DAY

MODE	CURRENT YEAR (2020)	FUTURE YEAR (2045)	CHANGE
ALL VEHICLES	2,237	3,968	77%
PASSENGER VEHICLE	2,104	3,679	75%
TRUCK	133	289	117%

Locations in the region that are congested and severely congested are reported in the following measure, however the future locations that are projected to influence the increase in VHD include:

- I-105 from downtown Eugene to Delta Highway
- Coburg Road from downtown Eugene to I-105
- OR 126 from I-5 to Mohawk Boulevard
- I-5 from Glenwood Boulevard to OR 126

Future transportation improvements that are targeted to reduce traffic volume and/or delay at these locations (mode/route shift, mobility enhancement, etc.) can provide significant congestion benefits.

[62] For this performance measure, congestion was assumed to be anything slower than free-flow speed along a given corridor.

Congestion

Description: Locations on the regional roadway network that are congested

Measures:

- Locations on the regional roadway network that are congested or severely congested[63]

Data Source: Travel demand model

Findings: To complete the summary of congestion-related performance measures, Figure 52 (current year, 2020) and Figure 53 (future year, 2045) show the locations of congestion from the regional travel demand model. Notably, because the locations of congestion shown in the figures are outputs from the model they do not show every location of congestion that a traveler may experience from day to day. The model is intended to provide an estimation of the most frequently experienced congestion throughout the year, when in reality these conditions may vary by day.

The orange highlighting on Figure 52 and Figure 53 represent congested locations, while the red highlights severely congested locations. Congestion is predicted to increase in several places throughout the region, notably:

- I-5 between Coburg and Eugene-Springfield
- Beltline Highway between Coburg Road and Delta Highway
- Highway 9 and surrounding roadways near the Eugene Airport
- OR 126 near the intersection with Beltline Highway
- The western end of downtown, specifically where Highway 99 transitions to the W 6th Ave/W 7th Ave couplet
- I-5 and Franklin Boulevard east of the Glenwood area and south of Lane Community College (E 30th Ave)

Increased congestion in these locations with will increase travel time and may influence travel decisions (destination and mode) made by travelers. As regional population and travel continues to grow, there are not sufficient funds/resources to address congestion from the traditional strategy of adding lanes and capacity to existing facilities. Rather, other regional strategies will be needed to support residents, employees, and visitors getting access to jobs, goods, and services within the region.

[63] Volume-to-capacity (V/C) is used to report how full a street is with traffic volume relative to the carrying capacity. For this measure, a *congested corridor* is defined as a corridor where the v/c ratio is equal or greater than 0.90 and less than 1.0. *Severely congested* corridors are defined as having volume-to-capacity ratios over 1.0.

FIGURE 52. REGIONAL CONGESTED CORRIDORS (CURRENT YEAR 2020, PM PEAK HOUR)

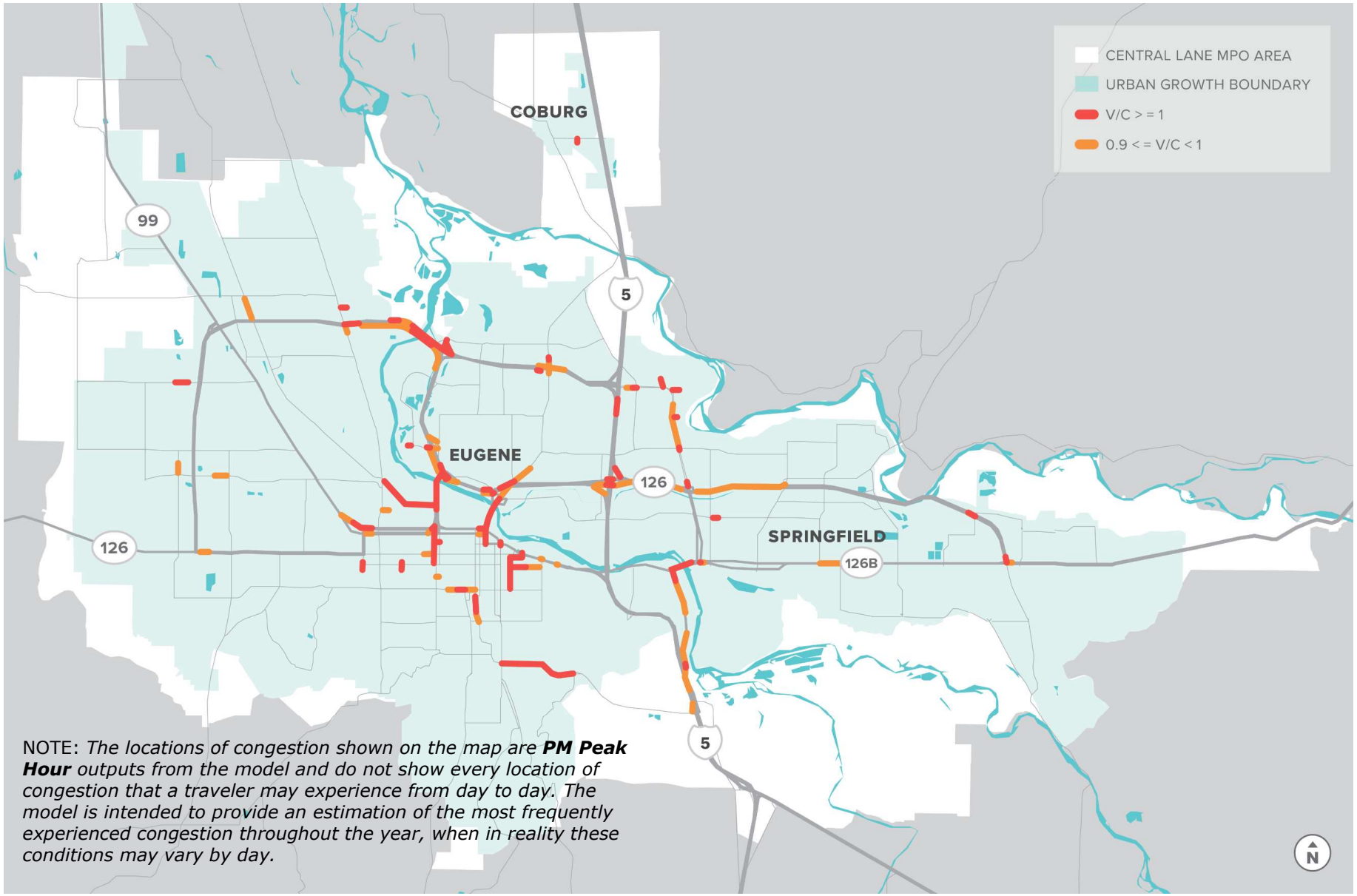
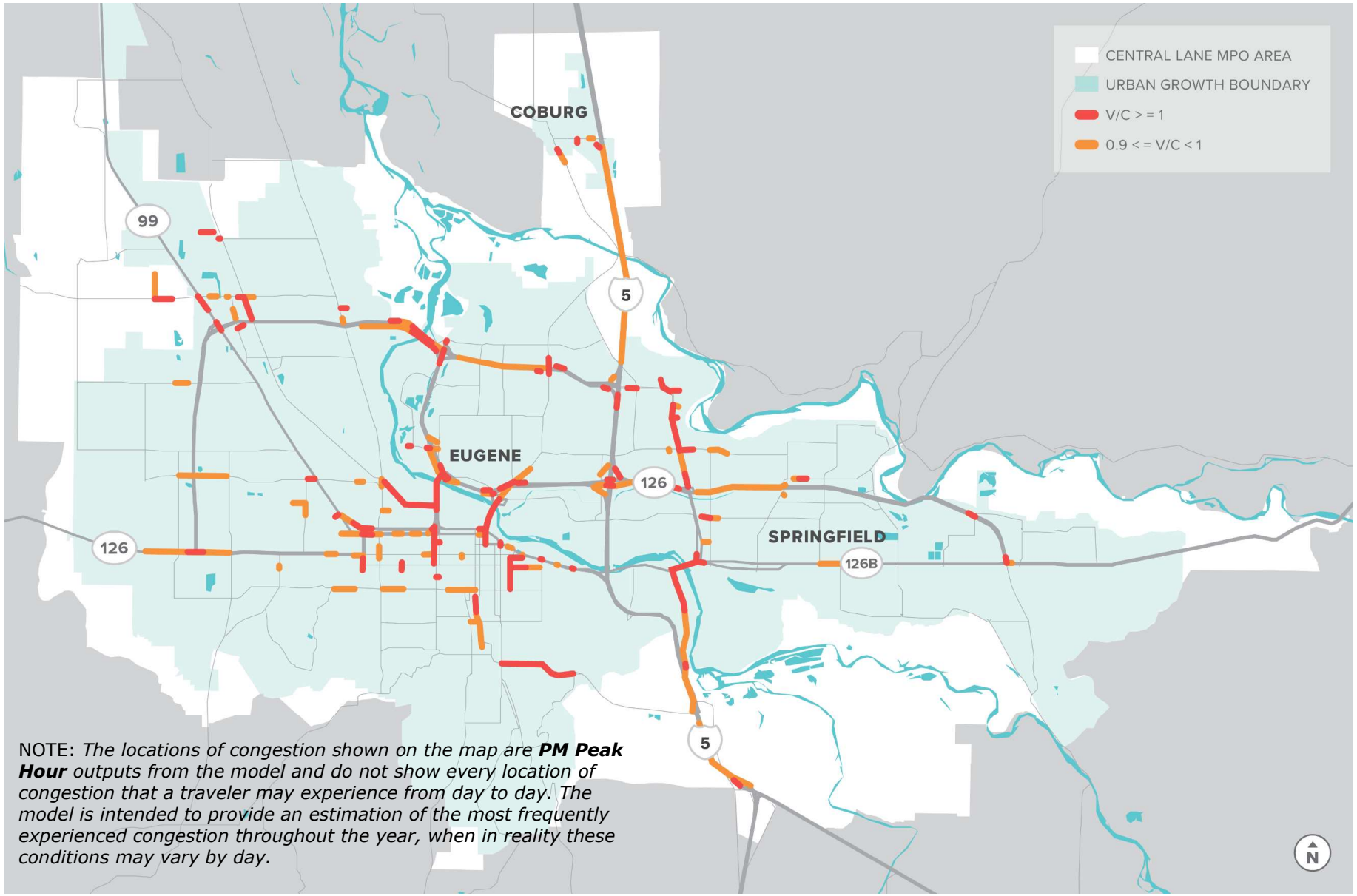
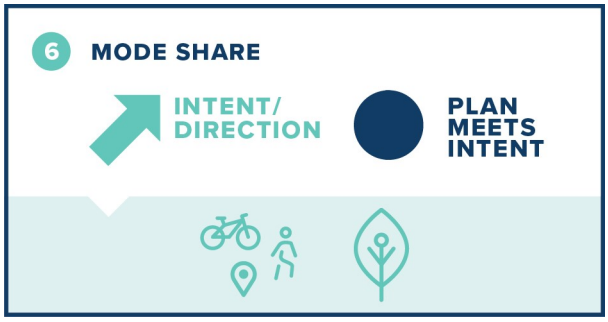


FIGURE 53. REGIONAL CONGESTED CORRIDORS (FUTURE YEAR 2045, PM PEAK HOUR)



NOTE: *The locations of congestion shown on the map are **PM Peak Hour** outputs from the model and do not show every location of congestion that a traveler may experience from day to day. The model is intended to provide an estimation of the most frequently experienced congestion throughout the year, when in reality these conditions may vary by day.*

Mode Share



Description: Percent of non-drive alone trips

Measures:

- Walking, bicycling, transit, and shared ride usage
- Person trips
- Transit trips on congested corridors

Data Sources: Travel demand model and ACS data

Findings: Mode share summarizes the total number of trips throughout the region by travel mode. There are several benefits that occur when travelers decide to take travel modes besides driving in a car alone as a single occupant vehicle (SOV), including:

- Reduced congestion with fewer vehicles on the roadway
- Reduced emissions from fewer vehicles on the roadway and/or less congestion related emissions
- Increased number of people receiving health benefits from active transportation such as walking and biking
- Lower expenditures spent on transportation

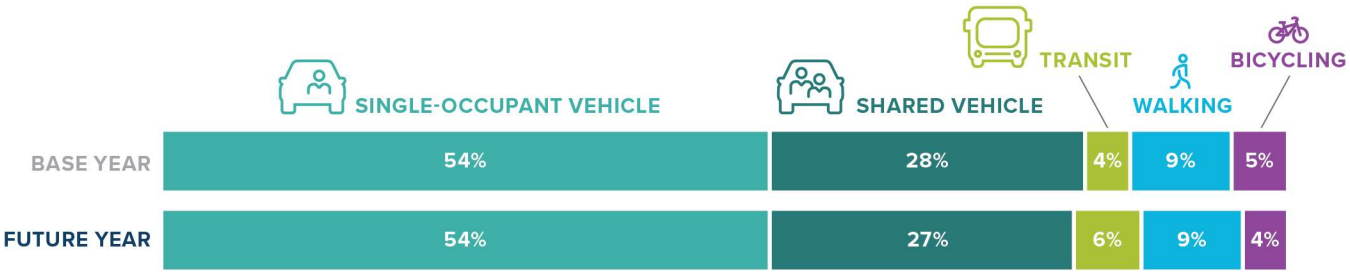
The region is growing and the total daily person trips is projected to increase approximately 20 percent over the next 25 years, as shown in Table 47. With the increase in daily trips, the importance of mode share will become an increasing critical factor in how the transportation system operates.

TABLE 47. TOTAL DAILY PERSON TRIPS

CURRENT YEAR (2020)	FUTURE YEAR (2045)	CHANGE
1,017,709	1,234,481	+21%

Mode share and the mode that individual travelers use for each trip can be influenced by many factors including trip purpose, available options, cost, and trip distance. Broad strategies and targeted projects and programs can influence mode share and improve access. However, short- and longer- term fluctuations in mode share may also occur due to a variety of factors that are beyond the direct influence of transportation planning, including market-driven fuel pricing and weather. The travel demand model is used to estimate current and future mode split based on traveler behavior and the planned system. However, this analysis tool does not capture some of the many shorter-term and longer-term influences that may dictate a traveler's mode choice. Figure 54 summarizes the region's projected mode share using the travel demand model.

FIGURE 54. REGIONAL MODE SHARE (2020 BASE YEAR AND 2045 FUTURE YEAR)



As the region grows, most modes of travel will experience similar growth and are not projected to significantly shift from current patterns, as shown in Figure 54. However, the share of transit trips is projected to have an overall increase of 2 percent of trips, or 84 percent relative to current usage. Table 48 summarizes the current year and future year projections for daily trips by mode.

TABLE 48. DAILY WALKING, BICYCLING, TRANSIT, AND SHARED VEHICLE PERSON TRIPS

MODE	CURRENT YEAR (2020)	FUTURE YEAR (2045)	CHANGE
WALKING	94,639	109,634	+16%
BICYCLING	46,822	54,619	+17%
TRANSIT	38,070	69,940	+84%
SHARED VEHICLE	287,245	334,718	+16%

With increased regional congestion in 2045, additional trips are projected to shift to transit modes along congested corridors (Table 49). While transit travel currently represents five percent of person-miles traveling on congested corridors, that figure is projected to increase to 14 percent in 2045.

TABLE 49. TRANSIT TRIPS ON CONGESTED CORRIDORS

	CURRENT YEAR (2020)	FUTURE YEAR (2045)	CHANGE
TRANSIT PERSON MILES	1,120 5% of total person miles	5,795 14% of total person miles	+517%
TRANSIT MILES	25 6% of total transit miles	57 12% of total transit miles	+228%

The region is headed towards a more even distribution of the travel modes residents choose. The combined share of transit, walking, and biking trips is projected to increase slightly from 18 percent to 19 percent. However, there is still potential to increase the percentage of non-SOV trips like transit, walking, and biking. Table 50 summarizes the trip length for SOV trips. A trip that is under five miles in length taken via passenger vehicle may have the potential to be replaced by walking, biking, or taking transit. As listed in Table 50, 56 percent of SOV trips are less than five miles long, which provide opportunities for shifts to other travel modes.

TABLE 50. SINGLE OCCUPANT VEHICLE (SOV) TRIP LENGTH DISTRIBUTION

TRIP DISTANCE	OTHER MODES THAT COULD SERVE TRIP	CURRENT YEAR (2020) TRIPS	CURRENT YEAR (2020) SOV PORTION	FUTURE YEAR (2045) TRIPS	FUTURE YEAR (2045) SOV PORTION
LESS THAN ¾ MILE	Walk, Bike, Transit	38,699	6%	47,832	6%
¾ TO 3 MILES	Bike, Transit	189,287	28%	229,384	27%
3 TO 5 MILES	Transit	149,377	22%	182,291	22%
OVER 5 MILES	Shared Ride (HOV)	293,092	44%	379,826	45%
TOTAL	N/A	670,455	100%	839,332	100%

An EmX bus departing from a station.

System Completeness

Description: Completeness of regional sidewalks and bikeways

Measures:

- Mapping of regional pedestrian and bicycle networks completed
- Mapping of regional pedestrian and bicycle facilities completed within ¼ mile of high frequency transit stops and within equity focused areas

Data Sources: GIS, field confirmation

Findings: A connected walking and biking system can provide safe and comfortable travel options for people of all ages and abilities in the CLMPO region. The System Completeness performance measure provides a snapshot of how well-connected the bicycle and pedestrian networks are throughout the region. This measure can also track the amount of investment the region puts into active transportation relative to where they would like to be. This performance measure is calculated using GIS and field confirmation. Notably, the amount of data tracking bikeway and sidewalk availability and quality is continuing to improve with advancements in technology but is not considered to be entirely comprehensive at this time. Given constraints with data limitations including a complete regional sidewalk inventory, CLMPO staff present this measure from a qualitative perspective for this RTP. Figure 55 shows the bicycle network system completeness, Figure 56 shows the pedestrian and shared-use path completeness, and Figure 57 shows the bicycle and pedestrian system completeness within ¼ mile of a high capacity transit stop, which is assumed to be a reasonable distance for transit riders to walk to a transit stop.

Each figure displays the current network with the current data availability along with the bicycle and pedestrian projects from the RTP project list to show the complete system once the RTP's fiscally constrained project list is fully built. Each figure is also displayed with the region's socio-economic indicators to demonstrate where projects are planned in relationship with socio-economic indicators.

Increasing the system completeness will make active transportation modes more viable for regional travelers. Biking and walking facilities are particularly important surrounding transit facilities so that riders can get to transit stops safely. The completion of these facilities will help improve access to transit and can encourage modal shifts for walking, biking, and transit.

FIGURE 55. BICYCLE NETWORK SYSTEM COMPLETENESS

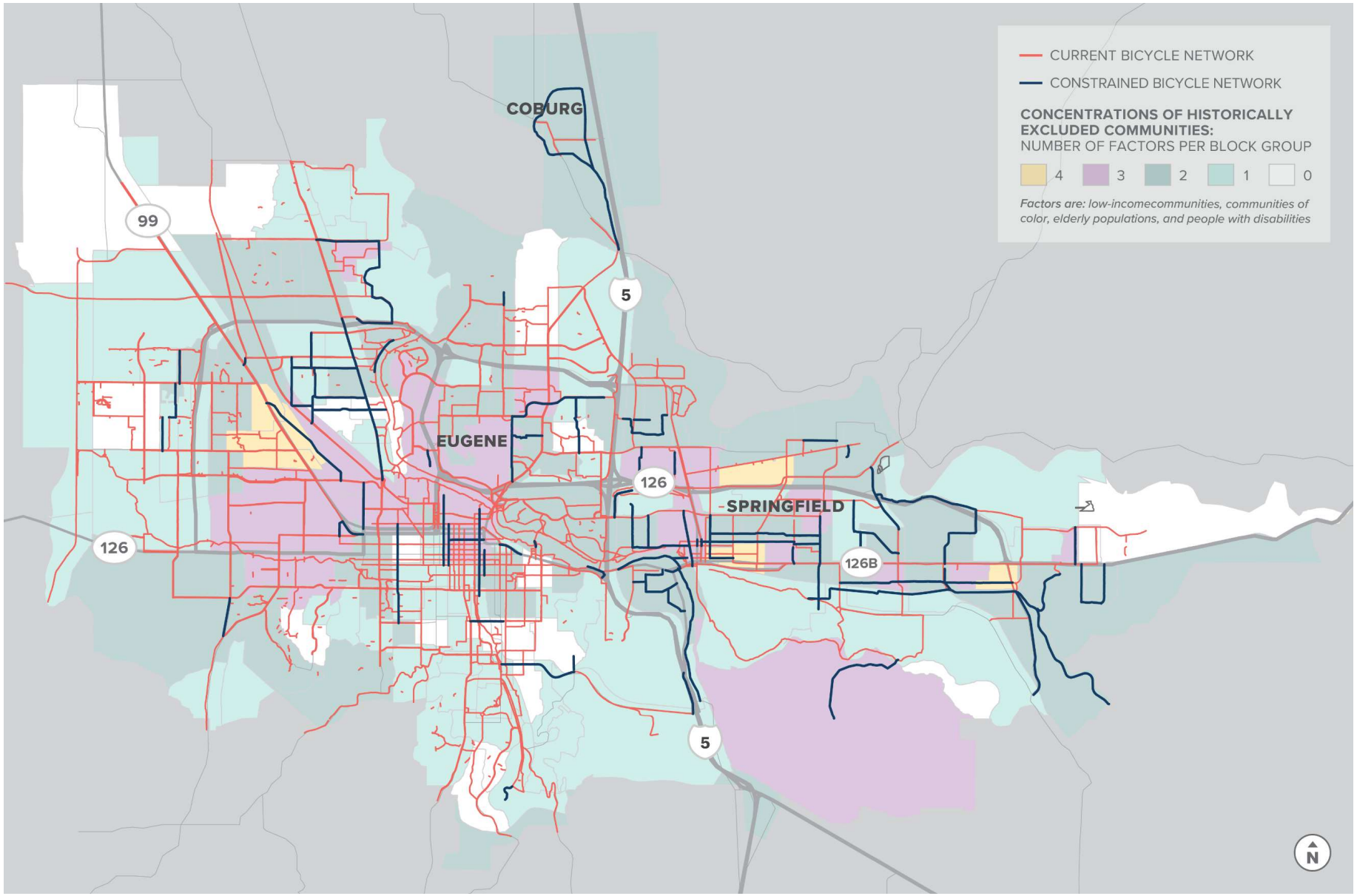


FIGURE 56. SIDEWALK AND SHARED USE PATH SYSTEM COMPLETENESS

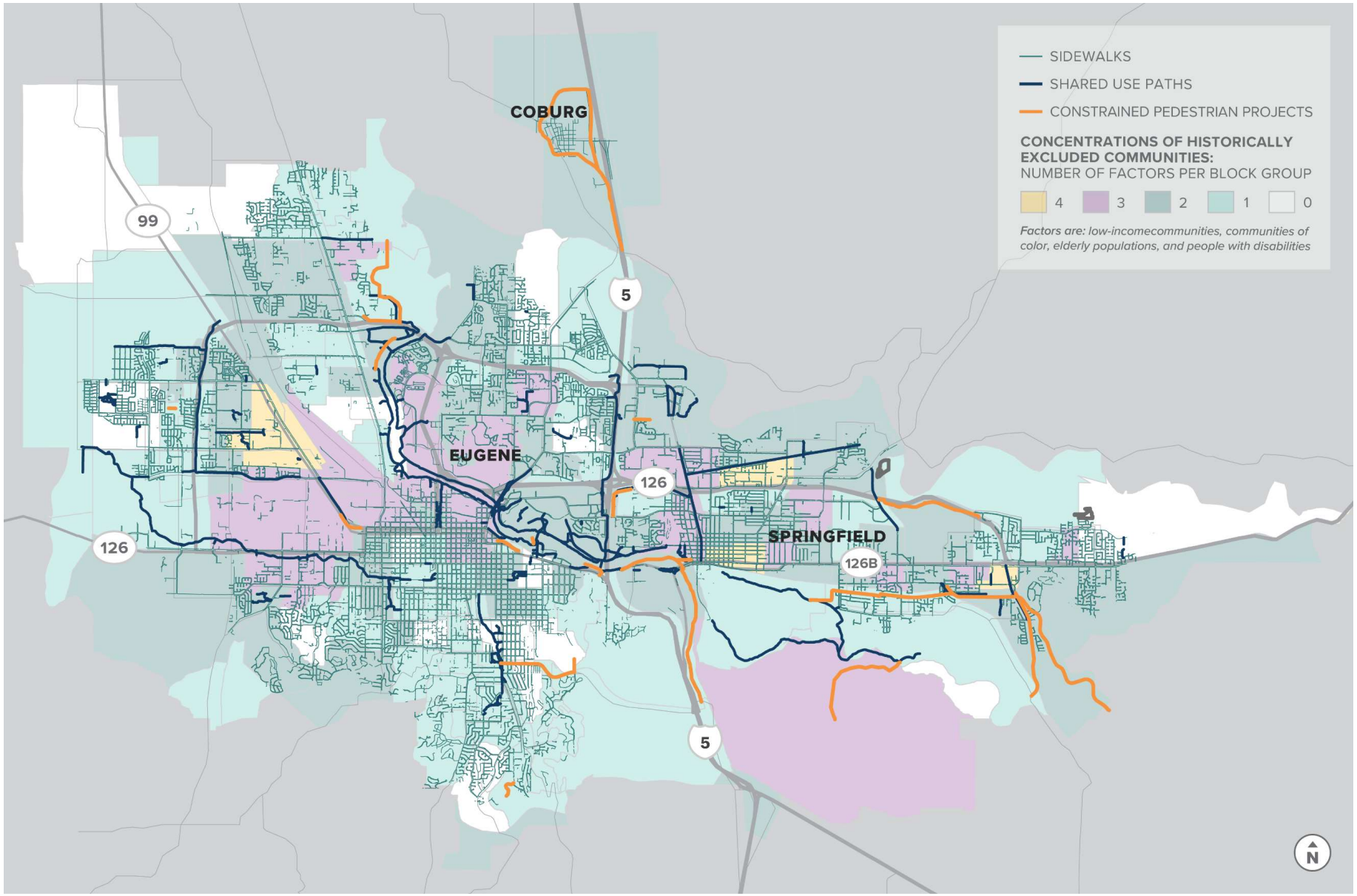
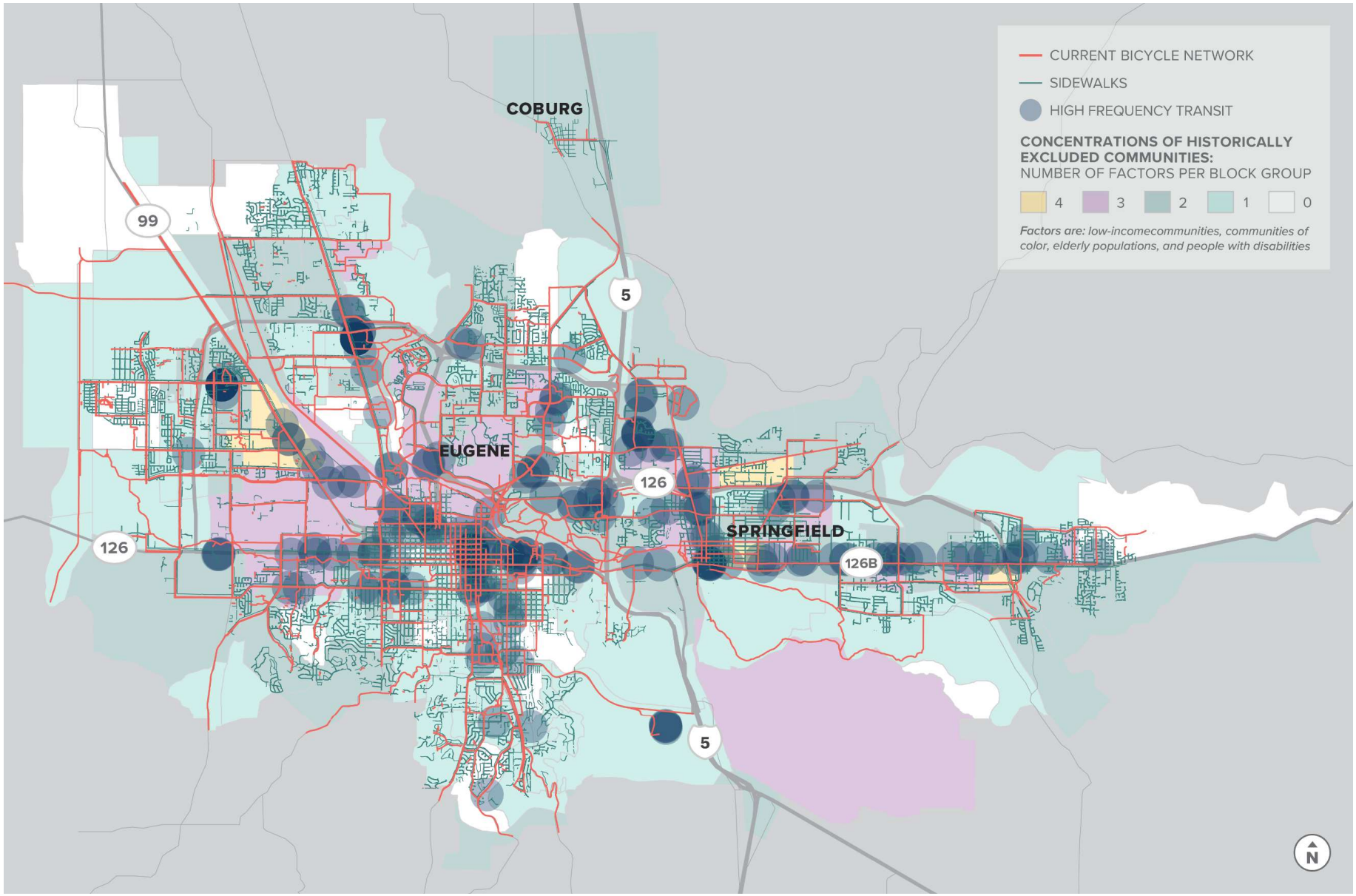


FIGURE 57. BICYCLE AND PEDESTRIAN SYSTEM COMPLETENESS WITHIN ¼ MILE OF A HIGH CAPAPCITY TRANSIT STOP



Access to Jobs

Description: Number of jobs accessible within a reasonable travel time

Measures:

- Jobs accessible by households within the following commute travel times/distances:
  - 20-minute drive for passenger vehicles
  - 20-minute travel time for transit riders
  - ¾-mile distance by walking[64]
  - 3⅓-mile distance by biking[65]

Data Sources: Travel demand model, GIS, and ACS data

Findings: Access to jobs within reasonable travel times is critical for travelers across the region. As congestion increases, it is important to monitor the impact on accessibility for communities. In general, the CLMPO area considers travel time to a destination to be "accessible" if it takes 20 minutes or less, regardless of mode. Table 51 lists the portion of jobs accessible by passenger vehicle, walking, biking, and transit as estimated by the regional travel demand model.

TABLE 51. JOBS ACCESSIBLE BY PASSENGER VEHICLE IN THE AVERAGE HOUSEHOLD

MODE	CURRENT YEAR (2020)	FUTURE YEAR (2045)	CHANGE
PASSENGER VEHICLE	100% (133,407)	100% (176,139)	0%
BIKING	25%	26%	+1%
WALKING	1.5%	2%	+0.5%
TRANSIT	82%	92%	+10%

Currently, over 80% of jobs accessible by passenger vehicle are also accessible by taking transit, however, walking and biking to jobs is more difficult. As the number of jobs increases in the future year, so do accessible opportunities for other modes. To enable this potential modal shift, jobs should be located near areas that are well connected to transit, sidewalk, and bikeway systems.

[64] FHWA standard assumption is average travel speed of 4 feet per second for 20 minutes. In 20 minutes this would result in nearly a mile of walking, but the shorter ¾-mile threshold accounts for terrain or obstruction to pedestrian travel.

[65] FHWA assumption is average travel speed of 12 mph for 20 minutes. In 20 minutes this would result in nearly 4 miles of biking, but the shorter 3 1/3-mile threshold accounts for terrain or obstruction to bicycle travel.

Access to Services

Description: Number of services (food, education, employment, and/or healthcare) accessible within a reasonable travel time

Measures:

- Services accessible by households within the following reasonable travel times/distances:
  - 20-minute drive for passenger vehicles
  - 20-minute total travel time for transit riders
  - ¾-mile distance by walking[66]
  - 3 ⅓-mile distance by biking[67]

Data Sources: Travel demand model, GIS, and ACS data

Findings: In addition to accessing jobs, access to services is important for travelers across the CLMPO region. The same accessibility thresholds for access to jobs also apply to access to services. Table 52 lists the portion of services accessible by passenger vehicle, walking, biking, and transit as estimated by the regional travel demand model.

TABLE 52. SERVICES ACCESSIBLE BY MODE THE AVERAGE HOUSEHOLD[68]

MODE	CURRENT YEAR (2020)	FUTURE YEAR (2045)	CHANGE
PASSENGER VEHICLE	100% (465)	100% (465)	0%
BIKING	22%	23%	+1%
WALKING	2%	2.5%	+0.5%
TRANSIT	81%	96%	+15%

The availability, location, and number of services are not assumed to change from 2020 levels for purposes of the analysis. Despite this limitation, the number of services accessible by transit increases between the current and future years. This may be due to expansion of services from Lane Transit District or added efficiency within their existing transit services.

[66] FHWA standard assumption is average travel speed of 4 feet per second for 20 minutes. In 20 minutes this would result in nearly a mile of walking, but the shorter ¾-mile threshold accounts for terrain or obstruction to pedestrian travel.

[67] FHWA assumption is average travel speed of 12 mph for 20 minutes. In 20 minutes this would result in nearly 4 miles of biking, but the shorter 3 1/3-mile threshold accounts for terrain or obstruction to bicycle travel.

[68] Passenger vehicle serves as the benchmark mode. Walking, biking, and transit modes are benchmarked to the number of services that are accessible by passenger mode.

Access to Transit

Description: Number of households within ¼ mile of a transit stop

Measures:

- Number of households within ¼ mile of a transit stop

Data Sources: Travel demand model and GIS

Findings: As highlighted in the two previous performance measures, being located near transit increases a household's ability to access nearly all jobs and services within the CLMPO area. The Access to Transit performance measure tracks how many households are located within ¼ mile of a transit stop. The threshold of ¼ mile represents a reasonable amount of distance and time the average person would walk to a transit stop. This performance measure is reported during the current year only, as specific locations of future transit stops is not known at this time. Currently 95 percent of households in the CLMPO region are located within ¼ mile of a transit stop. Improving accessibility to these locations by completing the pedestrian and bicycle system gaps will enable increased transit use in the future. Lane Transit District explored changes to their system throughout the region with their *Transit Tomorrow* plan.[69]

[69] The *Transit Tomorrow Plan* was initiated and later put on hold under the COVID-19 pandemic.

Access to High Capacity Transit

Description: Number of households within ¼ mile of a high capacity transit stop

Measures:

- Number of households within ¼ mile of a high capacity transit stop (15 minute frequency or less)

Data Sources: Travel demand model and GIS

Findings: As highlighted in the previous performance measures, being located near transit increases a household's ability to access nearly all jobs and services within the CLMPO area. This measure tracks how many households are located within ¼ mile of a high capacity transit stop. The threshold of ¼ mile represents a reasonable amount of distance and time the average person would walk to a transit stop. This performance measure is reported during the current year only, as specific locations of future transit stops is not known at this time. Currently 40 percent of households in the CLMPO region are located within a reasonable distance to a transit stop for high capacity transit. Improving accessibility to these locations by completing the pedestrian and bicycle system gaps will enable increased transit use in the future. Lane Transit District is currently exploring changes to their system throughout the region with their *Transit Tomorrow* plan.[70] Access to high capacity transit for historically excluded populations is further explored in Appendix H Environmental Analysis.

[70] The *Transit Tomorrow Plan* was initiated and later put on hold under the COVID-19 pandemic. Lane Transit District's Board of Directors postponed the project review until the community can "participate in a meaningful way," https://www.ltd.org/transit-tomorrow/.

Safety

Description: Transportation-related collisions

Measures:

- Vehicle, pedestrian, and bicyclist fatal and serious injury crashes
- Vehicle, pedestrian, and bicyclist fatalities where alcohol is a factor
- Vehicle fatalities where a passenger is unrestrained
- Motorcyclist fatalities, helmeted and un-helmeted
- Fatalities where a driver's age is 20 or under

Data Sources: ODOT crash and crash severity data, CLMPO Data Portal

Findings: While future crash data are difficult to project at a regional scale, evaluation of recent data provides information on recent trends. Crash data can be used to monitor progress towards safety goals and is continually collected through Oregon's collection of crash reports (filed by police or others) and ODOT's Crash Analysis & Reporting Unit. The latest available data are for 2019. Table 53 summarizes the fatal and serious injury crashes over the last five year period, including those that involved pedestrians and bicycles. Crashes involving these modes typically result in greater severity due to the vulnerability of these users (not protected with seatbelt and other safety devices inside a vehicle frame).

TABLE 53. FATAL AND SERIOUS INJURY CRASHES BY YEAR

TYPE	2015	2016	2017	2018	2019	5-YEAR TOTAL
FATAL CRASHES (ALL)	18	16	8	17	16	75
- PEDESTRIAN FATALITY	2	0	3	2	3	10
- BICYCLE FATALITY	0	0	2	0	2	4
SERIOUS INJURY (ALL)	78	76	81	87	85	407
- PEDESTRIAN SERIOUS INJURY	4	5	5	3	8	25
- BICYCLE SERIOUS INJURY	5	5	7	7	6	30

In general, crashes that included alcohol as a factor had a disproportionately higher occurrence of high severity. As noted in Table 54, alcohol was a factor in about five percent of total crashes, but nearly half (45 percent) of all crashes involving a fatality. Alcohol also contributed to a higher share of serious injury (eight percent) and moderate injury (nine percent) crashes than the rate of

crashes involving alcohol (five percent). Alcohol-related crashes comprised a lower share of minor injury and property damage only crashes (four percent each).

TABLE 54. NUMBER OF CRASHES WHERE ALCOHOL WAS A FACTOR WITHIN THE URBAN GROWTH BOUNDARY (2016-2019)

SEVERITY OF CRASH	NUMBER OF CRASHES RELATED TO ALCOHOL	ALCOHOL WAS A FACTOR IN THIS PORTION OF CRASHES WITH THE SEVERITY
ALL CRASHES	610	5%
FATAL	24	45%
SERIOUS INJURY	25	8%
MODERATE INJURY	146	9%
MINOR INJURY	159	4%
PROPERTY DAMAGE ONLY	256	4%

Table 55 summarizes fatalities by key attributes such as use of seatbelts, motorcyclist-involved crashes, and age of driver, all of which are typically reported as NHTSA Core Safety Measures.

TABLE 55. CRASH FATALITIES IN THE URBAN GROWTH BOUNDARY BY YEAR (2016-2019)

ATTRIBUTES	2016	2017	2018	2019	FOUR YEAR TOTAL
TOTAL	13	8	17	16	53
PASSENGER UNRESTRAINED	1	1	2	5	9
MOTORCYCLIST HELMETED*	3	1	3	3	10
MOTORCYCLIST UNHELMETED*	0	0	0	0	0
DRIVERS YOUNGER THAN 20 YEARS OLD	1	3	2	4	10

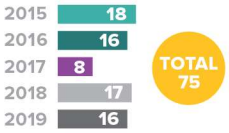
** All motorcyclists involved in fatal crashes were wearing helmets during this time period (2016 – 2019)*

Figure 58 provides an overview of other crash attributes.

FIGURE 58. CRASH TREND SUMMARY (2015 TO 2019)

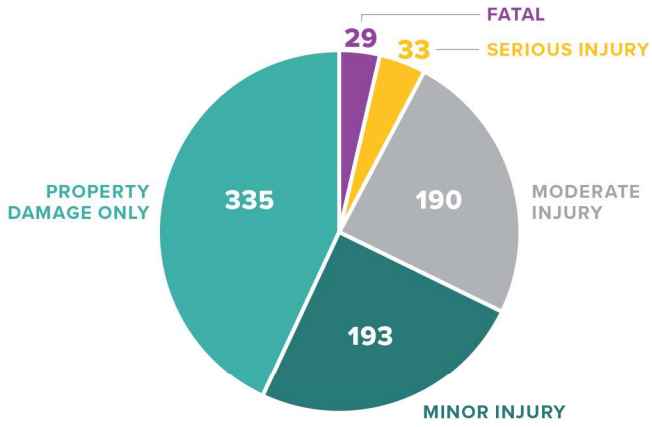
HIGH-LEVEL SAFETY REVIEW: ANALYSIS FROM 2015–2019

FATAL COLLISIONS

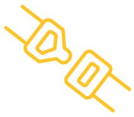


SERIOUS INJURY COLLISIONS

COLLISIONS WITH ALCOHOL AS A FACTOR (2015–2019)



FATAL COLLISIONS WITH AN UNRESTRAINED PASSENGER



2015	2016	2017	2018	2019
1	1	1	2	5

FATAL COLLISIONS WITH DRIVERS YOUNGER THAN 20 YEARS OLD

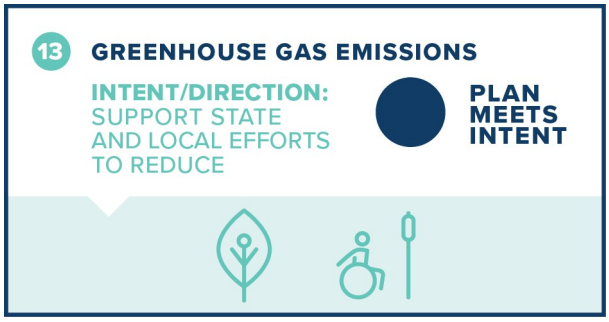
2015	2016	2017	2018	2019
3	7	4	1	0

MOTORCYCLIST FATALITIES

	2 UNHELMETED		0 UNHELMETED	
2015	2016	2017	2018	2019
6	8	3	1	3

Note: This data is reported for the "Eugene Springfield Urban Area"
Source: LCOG Online Data Portal, ODOT Crash Data, and NHTSA Core Safety Measures

Transportation-Related Greenhouse Gas Emissions



Description: Support local and state efforts to reduce transportation-related GHG emissions

Measures:

- Actions taken to support local and state efforts to achieve a 20% reduction in GHGs by 2040 from light vehicles[71] consistent with the state goal to, by 2050, achieve GHG levels that are at least 75 percent below 1990 levels.[72]

Data Sources: Travel demand model, VisionEval model, *Central Lane Scenario Planning Final Report* June 2015,[73] ODOT, and local Climate Action Plans

Findings: Transportation accounts for roughly 38% of Oregon's GHG pollution. To meet state and local pollution reduction goals, several actions are needed, including improving vehicle efficiency, making fuel cleaner, and reducing how much vehicles travel. The first two of these three actions are largely handled at the state and federal levels. For example, Oregon's Clean Fuels Program and Federal vehicle efficiency laws respectively. The third, reducing how much people in the region drive, is primarily addressed at the local level.

The state's GHG goal is, "By 2050, achieve greenhouse gas levels that are at least 75 percent below 1990 levels" (Oregon Revised Statute 468A.205). This region also has a strong commitment towards lowering transportation-related GHGs as demonstrated through the existing efforts listed in Table 56.

[71] "Light vehicles" means motor vehicles with a gross vehicle weight rating of 10,000 pounds or less (i.e. passenger vehicles, light duty trucks and sport utility vehicles)

[72] Oregon Revised Statute 468A.205 and Oregon Administrative Rule 660-044-0025

[73] While the *2015 Central Lane Scenario Planning Final Report* references the target in place at the time which was a 20 percent reduction below 2005 by 2035, this draft measure is looking towards the current legislation with the horizon year of 2040 for this RTP target. The preferred scenario from the *Final Report* met the target of a 20 percent reduction in GHGs by 2035 and is understood to meet a 20 percent reduction by 2040 with the assumptions in place at the time of scenario planning work.

TABLE 56. CLMPO EFFORTS TO SUPPORT LOCAL AND STATE EFFORTS TO REDUCE GHG

PLANNING EFFORT	DESCRIPTION
EUGENE-SPRINGFIELD METROPOLITAN REGION GREENHOUSE GAS INVENTORY (2010)	Identifies major sources of greenhouse gas emissions in the Eugene-Springfield area
CENTRAL LANE SCENARIO PLANNING (2015)	Explores how to meet the DLCD-set GHG emissions reduction target of 20% below 2005 levels by 2035 in the Eugene-Springfield Metropolitan Region
CENTRAL LANE SCENARIO PLANNING HEALTH IMPACT ASSESSMENT (2015)	Documents regional health impacts and related cost savings to anticipated reductions in GHG emissions associated with policies under consideration as part of the scenario planning process
CLMPO STRATEGIC ASSESSMENT (UNDERWAY)	Builds on the results of the Central Lane Scenario Planning work and the *Eugene Transportation Plan* scenario findings to test and quantify what regional policies, programs, and investment actions, grouped to make scenarios, will allow the MPO to achieve its long range local and State planning vision and goals; intended to guide the policy development and investment strategy options of the RTP update

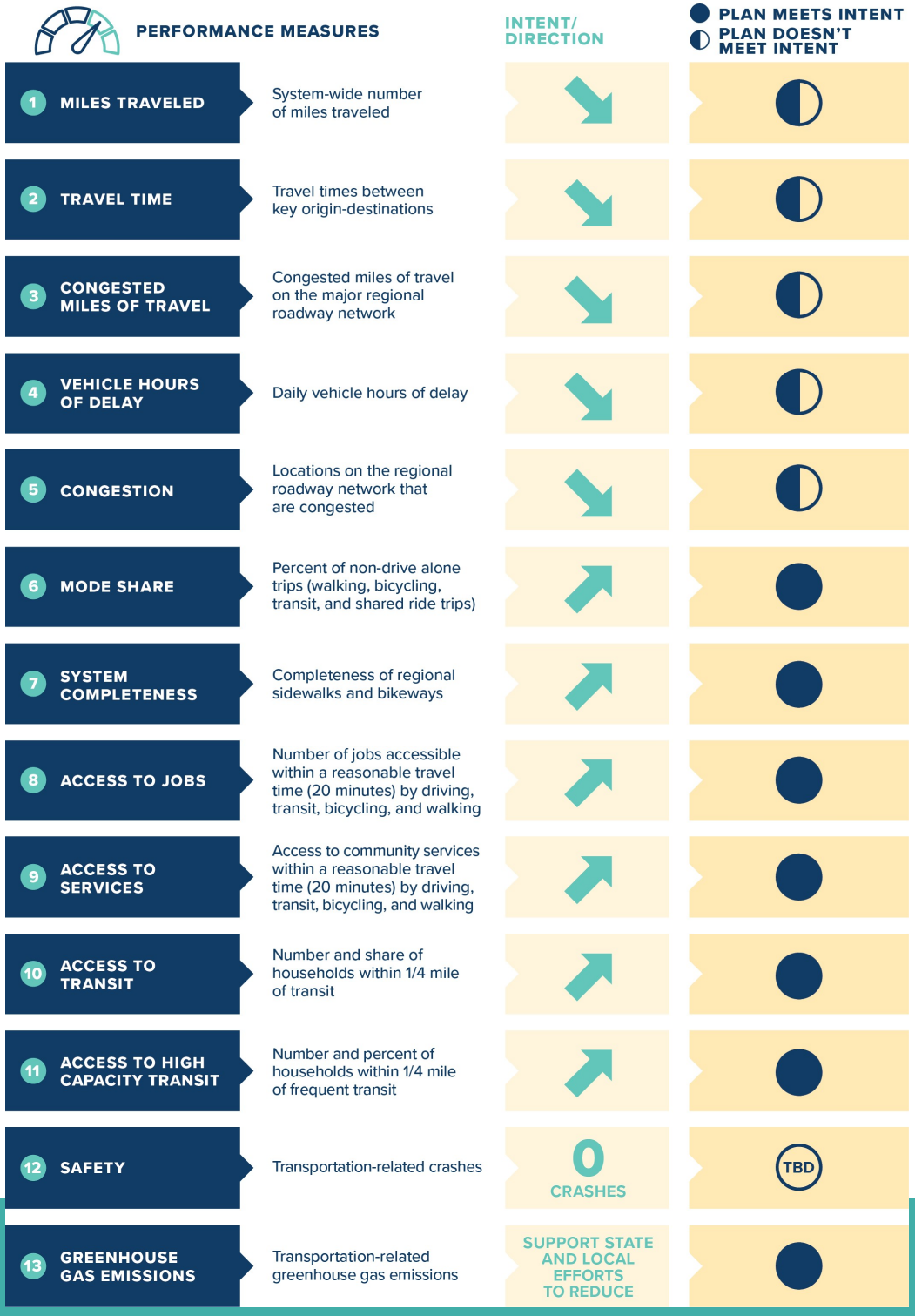
In addition to the efforts listed in Table 56, other regional actions related to reducing transportation-related GHG emissions include:

- City of Eugene's Climate Recovery Ordinance
- Lane Transit District's Climate Action Policy
- Lane County's *Climate Action Plan*
- A regional focus on supporting travel by public transportation transit, biking, walking, and shared occupancy vehicle

Additional legislation at the state and federal level is anticipated. The State's Climate-Friendly and Equitable Communities Rulemaking was initiated in September 2020 and is scheduled for adoption in spring 2022. It will result in an update to Oregon's Transportation Planning Rule and related administrative rules with a focus on meeting transportation-related GHG reduction goals. At the federal level, a proposed GHG measure was removed from the MAP-21 and FAST Act legislation, but it is anticipated that future transportation bills will reintroduce a related measure.

Summary of Regional OutcomesFigure 59 summarizes future trend alignment with targets, which helps CLMPO determine where to focus policies to better achieve the region's transportation goals.

FIGURE 59. REGIONAL PERFORMANCE MEASURE EVALUATION SUMMARY



CHAPTER 7: THE FUTURE OF THE REGION

HOW THE PLAN WILL BE USED

The RTP aligns transportation priorities, investments, and performance monitoring. These components of the RTP will continue to inform project implementation, progress towards regional goals, and future Plan updates.

The performance-based planning and programming framework establishes a mechanism to evaluate how well the Plan is performing and complying with federal requirements between Plan updates. CLMPO will coordinate the Plan implementation monitoring program in cooperation with implementing agencies. The ongoing Plan monitoring process includes the following four major components:

1. **Review trends, assumptions, and new opportunities**

   The first component of the Plan monitoring process includes awareness of how the region and transportation needs are changing. As the region changes and continues to evolve, it is important to consider new solutions and opportunities to address the region's transportation needs. These may include advancements in technology, information systems, or research that improve the best practices of traditional solutions.

2. **Inventory planning, program, and capital investment actions taken to implement RTP objectives**

   The second component of the Plan monitoring process involves documenting and tracking the planning, program, and capital investment actions local jurisdictions, and regional and state agencies apply to address RTP objectives. These actions are summarized in Chapter 5 of this RTP but will continue to evolve between Plan updates.

3. **Analyze transportation system performance using performance measures**

   The third component of the Plan monitoring process involves collecting data to assess transportation system performance in relation to the performance measures from Chapter 2 of this RTP. This analysis will provide a comprehensive view of how the transportation system is performing. The analysis will indicate when additional actions need to be taken. CLMPO may identify additional performance measures as needed throughout the planning period.

4. **Recommended actions and corrective steps, including potential Plan amendments during the next update cycle**

   The fourth component of the Plan monitoring process involves identifying actions and making recommendations as to how the Plan can be implemented most effectively. In many cases, these actions will involve increased or decreased emphasis on existing policies and implementation actions. In other cases, Plan monitoring will indicate that new or modified policies and implementation actions are necessary. Modifications to the Plan will most often be made during the regular Plan update process, occurring every four years. Should modifications need to be made to the Plan between updates, the Plan amendment process will be used.

EVOLVING IMPACTS ON THE REGION

Recent growth trends continue to shape the region and influence regional transportation needs and priorities. The influences of these trends and incremental growth are generally captured through regional population and travel forecasting that is incorporated into periodic updates of regional plans. In addition to these typical growth trends, there are several areas that are rapidly evolving, difficult to predict, and could have increased influence on future regional planning efforts. As each of these areas continue to evolve, they may require additional focused study to assess impacts on future RTP updates.

CHANGING POPULATION DEMOGRAPHICS

While changing population demographics are a typical occurrence, the rate of change will likely be influenced by other considerations noted in this section. In turn, changing population demographics may influence future modal strategies/priorities or how information is communicated (medium/language). Further, the aging population will also continue to influence modal strategies and priorities to account for needs of older populations including modal options beyond driving alone.

LONG-LASTING IMPACTS OF THE COVID-19 PANDEMIC

Initial transportation assessments of the COVID-19 pandemic conducted in Spring 2020 were that traffic volumes and congestion decreased as restrictions were placed on businesses and the transition to remote work environments. Since that time, many streets have experienced a return to (or are approaching) pre-pandemic traffic volumes. The long-lasting impacts of the pandemic will likely be shaped through several variables that will continue to evolve over the coming months and years:

- **Growth of e-commerce and shift from commercial storefront to residential delivery** – This may not yield a reduction in trips but will likely shift the types and patterns of trips as additional delivery vans visit residential areas.
- **Remote work flexibility** – Opportunities vary by job type, but it is likely that employees in certain sectors will be working remotely more frequently, reducing the number of weekly commute trips. In some cases, an employee may be working remotely a couple of days a week, while in other cases employees may transition to a 100 percent remote configuration and may not even reside in the same city/region as their employer.

Additional time and further research will enhance understanding of the lasting effects of the pandemic, which will be addressed in future RTP update cycles.

CLIMATE CHANGE

The CLMPO and other local, state, and federal agencies are actively creating policies to reduce and mitigate the impacts of climate change. The Oregon Statewide Transportation Strategy (STS) identified the initial framework and strategies to reduce the impacts of climate change. In spring 2020, Governor Brown issued Executive Order 20-04 to reduce and regulate GHG emissions, which triggered a series of activities through various state departments. The ODOT Climate Office was formed and is currently leading work efforts related to transportation electrification and to

incorporate GHG considerations into the STIP. In addition to ODOT initiatives, cross-agency efforts and implementation including Department of Energy, DEQ, and DLCD are identified in *Every Mile Counts*. Of note, a Climate-Friendly and Equitable Communities rulemaking advisory committee is currently developing draft rules (projected LCDC adoption in Spring 2022) in six areas that will guide future transportation planning efforts in the region and around the state:

- Climate-friendly areas
- High quality bike, pedestrian, transit improvements
- Reduce parking mandates
- Limit use of congestion standards
- Transportation project prioritization
- Electric vehicle charging

EQUITY

Historically, benefits and burdens of transportation investments have not been fairly distributed, with the majority of burdens being placed on low-income communities, communities of color, elderly populations, and people with disabilities. The future of transportation planning will prioritize the input and needs of these communities that have been historically excluded from planning processes. This will include robust engagement strategies, government agency transparency, and transportation projects, programs, and activities that are tailored to the needs of each community.

The impact transportation has on the health and livability of communities is also continuing to be explored. Like the rest of the country, Lane County has a history of systemically disadvantaging certain populations based on race that has led to inequities in health outcomes, health behaviors, and the social determinants of health.[74] The social determinants of health include access to food, healthcare, and employment opportunities that can all be linked to the transportation system. As the interconnectedness of several disciplines is explored further, the role of the transportation system and its access and environmental impact will continue to be key factors in improving social and health equity for the communities in the Central Lane region.

On a state-wide policy level, the current Climate-Friendly and Equitable Communities rulemaking will directly influence these future efforts in Oregon.

HOUSING AND EMPLOYMENT

Housing and employment trends and locations may continue to evolve due to several associated factors noted here, including the pandemic and current rulemaking efforts. Rulemaking efforts may influence future local Comprehensive Plan changes. In addition, House Bill 2001 provides additional flexibility for housing types within single family zoning and may provide for increased residential densities.

[74] *Lane County Health Equity Report* 2020.

TECHNOLOGY

The significant influence that technology has on the transportation system continues to evolve. The growth of smartphones and related technology has (and will continue to) influenced:

- **Travel information and route planning** – This includes all modes, including current motor vehicle travel time, transit schedule and arrivals, pedestrian routes, TNC and rideshare opportunities, and micromobility opportunities. While route planning and selection of these modes has traditionally been a process focused on a single selected mode, there is now movement towards centralized payment platforms for all transportation users across different parking, transit, and micromobility platforms. This transition may further enable the use of multiple modes of travel due to these linkages with improved planning and payment systems.
- **Trip making behavior** – As noted with pandemic influences, technology is enabling both e-commerce growth and remote work opportunities.

In addition, technology advancements for both in-vehicle and roadway systems continue to advance. Additional technology in vehicles is continuing to assist improved awareness of system conditions and adjacent objects through cameras and other sensors. Improved technologies and advancements in connected vehicle technologies will provide opportunities to improve safety through reducing crashes and optimizing traffic flow. The cascading effects of these changes have been theorized and will continue to be incorporated into future plan updates as these changes influence travel behaviors.

INTELLIGENT TRANSPORTATION SYSTEMS PLAN

The ITS Plan was developed concurrently with this RTP for the first time in the region's history. Historically, the two plans have been developed separately with different stakeholder groups. Combining the two efforts allows the RTP to better integrate ITS solutions with other traditional capacity expansion focused solutions to solve congestion issues on the region's transportation system. The use of technology on the existing roadway footprint can be more cost effective and can prolong the need for local agencies and ODOT to invest significant funding in roadway expansion and the associated maintenance and operating costs.

The region can continue to leverage technology to solve transportation congestion and safety on the roadway network. Future updates to the ITS plan will continue to inform opportunities for monitoring plan progress (data and performance measures) and provide additional opportunities to further leverage technology.

ONGOING WORK

There are several ongoing efforts that could impact the region's transportation future funding and priorities.

Safe Lane Transportation Coalition

SLTC is a collaborative effort between governmental agencies, safety advocates, and the public to reduce crashes in Lane County. Funded partially through ODOT's Safe Communities program, in 2022 the coalition will receive additional federal funding to implement safety efforts such as marketing and education campaigns, safety analysis in Springfield, and a tactical urbanism program.

Transportation Options

CLMPO reorganized the Regional Transportation Options (TO) programming in 2020. The new structure prioritizes collaboration with regional partners, flexible programming (including pilots), and working with historically excluded populations. CLMPO continues to support regional and statewide TO work with internal staff as well as subcontracting work to the City of Eugene TO programs. The TO program continues to support SRTS Programming in all three school districts within the CLMPO boundary, Eugene 4J, Bethel School District, and Springfield School District.

Transit Tomorrow

Lane Transit District is currently undergoing an update to their long-range transit plan. This could impact the way CLMPO residents are served by transit, potentially increasing frequency so that more people in the region have access to 15-minute service. Due to the COVID-19 pandemic, Lane Transit District's Board of Directors has postponed the community input opportunity for the plan until the community can participate in a meaningful way.

Eugene Smart City Action Plan

The City of Eugene is creating a *Smart City Action Plan* in 2021/2022. This plan will use technology and data improvements to strategically address the challenges of climate change, economic development, housing affordability, homelessness, and equity. The project will help Eugene to improve the efficiency of city service delivery, advance local climate action and resilience, and increase equity and prosperity for the community using technology and data as strategic tools to achieve these goals.

Oregon Household Activity Survey

The Oregon Modeling Steering Collaborative (OMSC) will be deploying the next Oregon Household Activity Survey (OHAS) during this RTP's four-year cycle. OHAS is a collaborative and coordinated multi-agency effort. Transportation analysts, planners, and decision-makers rely on these types of periodic travel surveys to provide a "snapshot" of current household travel behavior. The data collected through this household travel survey effort will be critical for updating and improving the CLMPO travel demand model, which is the region's foundational analytical tool used to support transportation planning, because it will provide a comprehensive picture of personal travel behavior that is lacking in other data sources.

The OMSC is a collaborative forum that promotes coordination and knowledge/information sharing across the many agencies that are responsible for travel modeling within Oregon and Southwest Washington. The OMSC's mission is to ensure that transportation agency partners around the state continue to have the right analytical tools, and the skills and expertise needed to help answer important planning and policy questions about Oregon's transportation system, growth and development, and its economy. CLMPO staff participate in OMSC and will be actively engaged in the OHAS.

Proposed American Jobs Infrastructure Bill

The American Jobs Plan is a proposal to spend $2 trillion on U.S. infrastructure over 8 years. The plan includes large allocations of funding for physical infrastructure like roads, transit systems, and broadband, which could be distributed throughout the CLMPO region. The funding could integrate with ongoing planning efforts, such as the *Lane County Communications Plan* (currently in contracting), that will plan out a high-speed communications network for the county including the CMLPO area.

GLOSSARY

Access management

Measures that regulate access to streets, roads, and highways from public roads and private driveways while simultaneously preserving traffic flow on the surrounding road system in terms of safety, capacity, and speed. Measures may include but are not limited to restrictions on the siting of interchanges, restrictions on the type and amount of access to roadways, and the use of physical controls, such as signals and channelization, including raised medians, to reduce impacts of approaching road traffic on the main facility.

Accessibility

Physical proximity and ease of reaching destinations throughout the urban metropolitan area.

Active transportation

Any self-propelled, human-powered mode of transportation, such as walking or bicycling.

Air Quality Conformity Determination (AQCD)

An air quality conformity determination for a transportation plan or program is a finding that proposed transportation activities will not impede an area from continuing to meet air quality standards and will not cause or contribute to new air quality violations. The report is required in areas that have previously been determined to have violated standards for at least one of six pollutants identified by US-EPA.

Alternative modes

Means of travel such as rail, transit, bicycles, and walking that provide transportation alternatives to the use of the automobile.

Americans with Disabilities Act (ADA)

Federal civil rights legislation signed into law in 1990 that includes requirements for accessible public transportation services for persons with disabilities. Services include complimentary or supplemental paratransit services for persons who are unable to use regular bus service due to a disability in areas where fixed-route transit service is operated. All new construction and modifications must be accessible to individuals with disabilities. For existing facilities, barriers to services must be removed if readily achievable.

Autonomous vehicle (AV)

Also known as a driverless car, self-driving car, or robotic car, AVs use sensors and advanced control systems to operate independently of any input from a human driver. Transportation experts have developed a five-level system to distinguish between different levels of automation.

Average daily traffic (ADT)

The average number of vehicles passing a specified point in a typical 24-hour timeframe.

Baseline

A minimum or starting point used for comparisons.

Benchmarks

Target objectives for the RTP's Performance Measure assessment method. Benchmarks are required by the Transportation Planning Rule for use in evaluating progress at five-year intervals. Transportation system plans must be amended to include new or additional efforts where benchmarks are not met.

Bicycle

A vehicle having two tandem wheels, a minimum of 14 inches in diameter, propelled solely by human power, upon which a person or persons may ride. A three-wheeled adult tricycle is considered a bicycle. In Oregon, a bicycle is legally defined as a vehicle. Bicyclists have the same right to the roadways and must obey the same traffic laws as the operators of other vehicles.

Bicycle facilities

A general term denoting improvements and provisions made to accommodate or encourage bicycling, including parking facilities, all bikeways, and shared roadways not specifically designated for bicycle use.

Bike lane

A portion of a roadway that has been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists.

Bike share

A shared transport service in which bicycles are made available for shared use to individuals on a short-term basis within a defined service area.

Bus rapid transit (BRT)

Bus Rapid Transit is a bus route along an identified corridor that includes investments that improve bus reliability, speed, comfort, and convenience. Elements of a BRT project would include capital investment in improved stops and stations, exclusive or semi-exclusive lanes, limited stops, transit signal priority, and similar treatments. BRT also includes high frequency service, with peak periods served by buses arriving every fifteen minutes or less. In the Eugene-Springfield area, higher levels of investment have been branded as Emerald Express (EmX). Lower levels of investment are described as Enhanced Corridor (EC) investments. While Enhanced and EmX Corridors use the same types of investments, EmX has been developed to be a high level of investment with more use of exclusive lanes, branded buses, distinct stations with many amenities, among other features. Enhanced Corridors could be, but are not necessarily, considered bus rapid transit under current Federal Transit Administration guidelines.

Capacity

The maximum rate of flow at which persons or vehicles can be reasonably expected to traverse a point or uniform segment of a lane or roadway during a specified time period under prevailing roadway, traffic, and control conditions; capacity is usually expressed as vehicles per hour or persons per hour.

Capital improvement program (CIP)

A plan for future capital infrastructure and program expenditures that identifies each capital project, its anticipated start and completion, and allocates existing funds and known revenue sources for a given period.

Census block

Statistical areas bounded by visible features, such as streets, roads, streams, and railroad tracks, and by nonvisible boundaries. Census blocks nest within all other tabulated Census geographic entities and are the basis for all tabulated data.

Census block group

Statistical divisions of Census tracts, generally defined to contain between 600 and 3,000 people. Used to present data and control block numbering. Census block groups consist of clusters of Census blocks within the same Census tract that have the same first digit of their four-digit Census block number.

Center turn lane

Also called a two-way left-turn lane (TWLTL). A lane in the middle of a two-way street that provides left turn access to and from adjacent properties and roadways, while minimizing impacts of left turning vehicles on through traffic. Center TWLTL pavement markings consist of a normal broken yellow line and a normal solid yellow line to delineate the edges of a lane that can be used by traffic in either direction as part of a left-turn maneuver. A TWLTL is followed by a single direction left turn lane(s) or traversable median or non-traversable median on the approach to a signalized intersection. TWLTLs have been used to reduce rear-end, head-on, and turning-related crashes occurring on two-lane roads.

Climate change

Any significant change in the measures of climate lasting for an extended period of time. Climate change includes major variations in temperature, precipitation, or wind patterns, among other environmental conditions, that occur over several decades or longer. Changes in climate may manifest as a rise in sea level, as well as increase the frequency and magnitude of extreme weather events now and in the future.

Commute

Regular travel between home and a fixed location (e.g., work, school).

Conformity

Also known as transportation conformity. Transportation conformity is required by the Clean Air Act section 176(c) (42 U.S.C. 7506(c)) to ensure that federal funding and approval are given to highway and transit projects that are consistent with ("conform to") the air quality goals established by a state air quality implementation plan (SIP). Conformity, to the purpose of the SIP, means that transportation activities will not cause new air quality violations, worsen existing violations, or delay timely attainment of the national ambient air quality standards.

Congestion

A condition characterized by unstable traffic flows that prevents movement on a transportation facility at optimal legal speeds. Recurrent congestion is caused by constant excess volume compared with capacity. Nonrecurring congestion is caused by incidents such as bad weather, special events, and/or traffic wrecks.

Congestion management process (CMP)

A planning document that lays out the process used to manage congestion. This includes the application of strategies to improve transportation system performance and reliability by reducing the adverse impacts of vehicle congestion on the movement of people and goods.

Connectivity

The degree to which the local and regional street, pedestrian, bicycle, transit, and freight systems in a given area are connected.

Constrained budget

The budget of federal, state, and local funds the Central Lane MPO can reasonably expect through 2045 under current funding trends – presumes some increased funding compared to current levels.

Constrained Regional Transportation Plan project list

Projects in the Regional Transportation Plan that are reasonably expected to be funded with available revenue sources.

Crash

A violent collision, typically of one vehicle with another (vehicles include bicyclists, motorcyclists, freight trucks, school buses, transit buses, etc.), a pedestrian, or with stationary objects such as a pole or guard rail.

Delay

The additional travel time for vehicle travel, as measured by the time to reach destinations at posted speed limits (free-flow speed) versus traveling at a slower congested speed. Delay can be expressed in several different ways, including total delay in vehicle – hours, total delay per vehicle miles traveled (VMT) and share of delay by time period, day of week or speed range.

Demand

The amount and type of travel people choose. Many factors can affect travel demand, including demographics, quality of facilities, quality and price of alternatives, and land use patterns. Changes to these factors, due to trends or by design, can affect travel activity and therefore costs and problems such as congestion, crashes, and emissions.

Demographics

Statistical data relating to the population and particular groups within it.

Density

The quantity of people or things in a given area or space. In an urban context, density often refers to the number of developed units in a specific area of land, determined by the zoning code. For example, residential density is measured by dwelling units per acre. Other common measures of density include population density (residents per acre) and employment density (jobs per acre).

Destination

The place to which someone or something is going.

Diverse

Including or involving people from a range of different social, racial, and economic backgrounds.

E-Commerce

Commercial transactions conducted electronically on the internet.

Efficiency

Achieving maximum productivity with minimum congestion or expense.

Electric vehicle (EV)

Vehicles that use electric motors for propulsion instead of or in addition to gasoline motors.

Emergency transportation routes (ETRs)

Priority routes used during and after a major regional emergency or disaster to move people and response resources, including the transport of first responders (e.g., police, fire, and emergency medical services), fuel, essential supplies, and patients.

Emerging transportation technologies

A blanket term to refer to new developments in transportation technology. This may be in reference to technologies like automated vehicles or smart phones and services that operate using these technologies, like bike share.

Emissions

The production or discharge of something, in the case of transportation, primarily coming from burning fossil fuel.

Employer-based commute programs

Work-based travel demand management programs that can include transportation coordinators, employer-subsidized transit pass programs, ride-matching, carpool and vanpool programs, telecommuting, compressed or flexible work weeks, and bicycle parking and showers for bicycle commuters.

Equity

Recognizes that each person has different circumstances and allocates the exact resources and opportunities needed to reach an equal outcome.

Fixing America's Surface Transportation (FAST) Act

Federal transportation legislation that authorizes funding and establishes the requirements for the metropolitan planning process that governs CLMPO's activities. The FAST Act was signed into law in 2015 and includes the requirement for transportation performance management, which defines the decision-making framework for selecting transportation projects and programs that are tied to national goal areas.

Facility

The fixed physical assets (structures) enabling a transportation mode to operate (including travel, as well as the loading and unloading of passengers). This includes streets, throughways, bridges, sidewalks, bikeways, transit stations, bus stops, ports, air and marine terminals, and rail lines.

Federal Highway Administration (FHWA)

The federal agency responsible for administering roadway programs and funds. The FHWA implements transportation legislation approved at the congressional level that appropriates all federal funds to state and local governments.

Federal Transit Administration (FTA)

The federal agency responsible for administering transit programs and funds. The FTA provides financial and technical assistance to local public transit systems, including buses, subways, light rail, commuter rail, trolleys, and ferries. FTA also oversees safety measures and helps develop next-generation technology research.

Fiscal constraint

Refers to project or program cost within reasonably expected revenues over the planning period.

Forecast

Projection of population, employment, or travel demand for a given future year.

Freeway

A design for a throughway in which all access points are grade-separated. Direction travel lanes are usually separated by a physical barrier, and access and egress points are limited to on- and off-ramp locations or a very limited number of at-grade intersections.

Freight mobility

The efficient movement of goods from point of origin to destination.

Functional classification

Street classification system that describes streets according to their purpose and capacity. The four main categories are detailed below. Note that the jurisdictions in the Central Lane MPO may have slightly differing classifications for arterial and collector streets.

Functional classification, Local

All streets that are not collectors or arterials. These facilities serve primarily to provide direct access to abutting land and access to the higher order systems. They offer the lowest level of mobility and usually contain no bus routes. Service to through traffic movement is usually discouraged.

Functional classification, Collector

A street designed to provide both land access service and traffic circulation within residential neighborhoods, commercial, and industrial areas. The primary function of a collector street is to distribute local trips to the arterial system.

Functional classification, Minor arterial

Includes all arterials not classified as principal arterials and offers a lower level of traffic mobility than the higher street classifications. Such facilities may carry local bus routes and provide intra-community continuity, but ideally should not penetrate identifiable neighborhoods.

Functional classification, Principal arterial

A street that serves the major centers of activity of a metropolitan area, the highest traffic volume corridors, and the longest trip needs. Principal arterials should carry a high proportion of the total urban area travel on a minimum of mileage and provide important intra-urban as well as inter-city bus routes.

Goal

States a desired outcome toward which actions are focused to make progress toward a long-term vision.

Greenhouse gas emissions (GHGs)

The six gases identified by the Oregon Greenhouse Gas Mandatory Reporting Advisory Committee as contributing to global climate change include: carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

Green infrastructure

A network of multi-functional green spaces and environmental features, both natural and engineered, that use or replicate natural systems to better manage stormwater, protect streams and enhance wildlife corridors—trees, soils, water, and habitats. Examples include: permeable paving, vegetated swales, rain gardens, green streets, green roofs, green walls, urban forestry, street trees, parks, green corridors such as trails, and other low impact development practices.

Health impact assessment

A combination of procedures, methods, and tools by which a policy, program, or project may be evaluated as to its potential effects on the health of a population and the distribution of these effects within the population.

High-occupancy vehicle (HOV)

Any passenger vehicle carrying more than one person. The term HOV is sometimes used to refer to lanes on large-volume roadways that are specifically set aside for the exclusive use of carpools, vanpools, and buses.

Highway

A design for a throughway in which access points are a mix of separate and at-grade.

Historically excluded communities

Communities of people that have been historically excluded from critical aspects of social participation including voting, education, housing, and more. Historical marginalization is often a result of systematic exclusion based on devaluation of any individual existing outside of the dominant culture. For purposes of the RTP, this includes people of color, people with limited English proficiency, people with lower-incomes, older adults, and people living with a disability.

Horizon year

The final year of the long-range planning period. Typically compared to the "Baseline."

Implementation actions

Specific measures for achieving RTP policies.

Individualized marketing

Travel demand management programs focused on individual households. These programs involve individualized outreach to households that identify household travel needs and ways to meet the needs with less vehicle travel.

Induced demand

Refers to the process whereby improvements in the transportation system intended to alleviate congestion and delay result in additional demand for the transportation segment, offsetting some of the improvement's potential benefits.

Intelligent Transportation Systems Technology (ITS)

The application of a broad range of advanced communications technologies that are integrated with transportation infrastructure and vehicles to improve the efficiency and safety of the transportation systems. ITS can include both vehicle-to-vehicle communication (which allows cars to communicate with one another to avoid crashes) and vehicle-to-infrastructure communication (which allows cars to communicate with the roadway) to identify congestion, crashes, or unsafe driving conditions; manage traffic flow; or provide alternate routes for travelers.

Intergovernmental coordination

Relating to or conducted between two or more governments.

Intermodal

Connecting individual modes of transportation and/or accommodating transfers between such modes. Intermodal transportation emphasizes the transfer of people or freight in a single journey through connections, provides options to facilitate trip making, and promotes coordination among transportation providers.

Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991

The 1991 federal transportation funding legislation that provides for a new direction in transportation planning, with an emphasis to protect the environment and reduce congestion, relying on the most efficient transportation modes, and providing increased flexibility to state and local governments on the use of federal funds.

Jurisdiction

The territory or sphere of activity over which the legal authority of an institution extends.

Land use

Describes the human use of land. It represents the economic and cultural activities that are practiced in a given place.

Land use allocation model

Land use allocation models use economic theories and simplified statistical methods to explain and predict changes in land uses based on economic theories and social behaviors. They produce household and land use information that is integrated with transportation models to simulate the interdependent relationships between land uses and the transportation network. They also help determine the various impacts to the transportation network of various land use policies

Level of service

A qualitative rating of how well a unit of transportation supply (e.g., street, intersection, sidewalk, bikeway, transit route, ferry) serves its current or projected demand.

RATING	CHARACTERISTICS
A	Virtually free flow; completely unimpeded
B	Stable flow with slight delays; reasonably unimpeded
C	Stable flow with delays; less freedom to maneuver
D	High density but stable flow
E	Operation conditions at or near capacity; unstable flow
F	Forced flow; breakdown conditions

Local jurisdiction

For the purpose of this plan, this term refers to a city or county within the metropolitan boundary.

Long-range planning

A blueprint for a region's long-term transportation projects.

Major investment study (MIS)

A method of analyzing and evaluating the transportation needs and related problems of a corridor or subarea within a region. The MIS may identify a multimodal set of investment and policy options to address identified needs and problems, develop measures of benefits, calculate costs, and determine impacts. The process is intended to provide decision-makers with better and more complete information on the options available for addressing identified transportation problems before decisions are made.

Median

The middle value of a range of values.

Metro Plan

The *Eugene-Springfield Metropolitan Area General Plan, 1987 Update*, amendments incorporated as of July 1997, 1998 Reprint. The official document adopted by local governments that contains the general, long-range policies on how the community's future development should occur.

Metropolitan Planning Organization (MPO)

The organizational entity designated by law to have the lead responsibility for developing transportation plans and programs for urbanized areas of 50,000 or more in population. MPOs are established by agreement of the Governor and units of general purpose local government that together represent 75 percent of the affected population of an urbanized area. Lane Council of Governments is the MPO for the Eugene-Springfield metropolitan area (referred to in this Plan as CLMPO or Central Lane MPO).

Mitigation

Planning actions taken to avoid an impact altogether, minimize the degree or magnitude of the impact, reduce the impact over time, rectify the impact, or compensate for the impact. Mitigation includes:

- Avoiding the impact altogether by not taking a certain action or parts of an action.
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- Reducing or elimination the impact over time by preservation and maintenance operations during the life of the action.
- Compensating for the impact by replacing or providing substitute resources or environments.

Mixed-use development

A development that has a mixture of land uses that may include office and other commercial uses, residential uses, parks, and public places, and supporting public facilities and services.

Mobility

The ease with which a person is able to travel from place to place. It can be measured in terms of travel time.

Modal split

The proportion of total persons using a particular mode of travel.

Mode

A means of moving people and/or goods. Modes may include motor vehicles, public transit, bicycles, railroads, airplanes, waterways, pipelines, and pedestrian walkways.

Mode choice

The ability to choose one or more modes of transportation.

Mode share

The percentage of travelers using a particular type of transportation.

Motorcycle

A motor vehicle with motive power having a seat or saddle for the use of the rider and designed to travel on not more than three wheels in contact with the ground. The National Highway Traffic Safety Administration defines "motorcycle" to include mopeds, two or three-wheeled motorcycles, off-road motorcycles, scooters, mini-bikes, and pocket bikes.

Moving Ahead for Progress in the 21st Century Act (MAP-21)

Reauthorization of Federal highway funding, signed into law by President Obama in July 2012. Subsequent adoption of the FAST Act does not replace MAP-21 in all areas of regulation of transportation safety planning and funding, so both must be referenced.

Multimodal

Refers to the diversity of transportation options for the same trip. Also, an approach to transportation planning or programming that acknowledges the existence of or need for transportation options.

National Highway System (NHS)

Title 23 of the U.S. Code section 103 states that the purpose of the NHS is to provide an interconnected system of principal routes that serve major population centers, international border crossings, ports, airports, public transportation facilities, intermodal transportation facilities, major travel destinations, meet national defense requirements, and serve interstate and inter-regional travel. Facilities included in the NHS are of regional significance.

Network

Connected routes forming a cohesive system.

Objective

An attainable target that the community attempts to reach in striving to meet a goal. An objective may also be considered as an intermediate point that will help fulfill the overall goal.

Oregon Highway Plan (OHP)

Document that outlines the policies and strategies that will guide the Highway Division's operation and fiscal activities during the 1999-2020 period. The OHP is a statewide mode plan that is part of the *Oregon Transportation Plan* (OTP).

Oregon Statewide Planning Goals

A mandated statewide program for land use planning in place since 1973. The foundation of the program is a set of 19 goals that express the state's policies on land use and related topics such as natural resources (Goal 5), housing (Goal 10), and transportation (Goal 12).

Oregon Transportation Commission (OTC)

The OTC is a five-member governor-appointed government agency that manages the state highways and other transportation in the state of Oregon, in conjunction with the Oregon Department of Transportation.

Oregon Transportation Plan (OTP)

The comprehensive, long-range plan for a multimodal transportation system for the state that encompasses economic efficiency, orderly economic development, safety, and environmental quality. The OTP was adopted by the Oregon Transportation Commission in 2006.

Origin

The point or place where a trip begins.

Overlay zone

A set of zoning specifications that is imposed on an area, in addition to the underlying zoning district's requirements.

Pandemic

An outbreak of a disease prevalent over a whole country or the world. In the context of this planning effort, the coronavirus infectious disease (COVID-19) pandemic began in early 2020 and is still ongoing.

Paratransit

Transit alternative known as *special* or *specialized* transportation that often includes flexibly scheduled and routed transportation services that use low-capacity vehicles, such as vans, to operate within normal urban transit corridors or rural areas. Services usually cater to the needs of persons who cannot use standard mass transit services. Common patrons are the elderly and persons with disabilities.

Park-and-ride

Public parking lots whose primary purpose is to provide access to public transportation services. These parking areas may function as shared use parking areas.

Major park-and-rides

In general, this type of park-and-ride includes capacity for 100 cars or more. A major park-and-ride generally includes buses operating on-site and passenger amenities such as a larger style bus shelter, lighting, and passenger information and may include restrooms for operators. Major park-and-rides are not transfer points and usually are on-street bus stops.

Minor park-and-rides

A minor park-and-ride is smaller in scale than a major park-and-ride, with capacity for fewer than 100 cars. Buses typically will not operate on-site. Buses may serve the park-and-ride via an on-street bus stop, which may include a bus turnout and standard bus shelter adjacent to the bus stop. A minor park-and-ride generally is a public parking lot less than two acres in size. These stops are not transfer points and the bus stop is on-street.

Parking management

Management strategies designed to address the supply and demand for vehicle parking that result in more efficient use of parking resources. They contribute to balancing the travel demand within the region among the modes of transportation.

Passenger intermodal facilities

Facilities that accommodate or serve as transfer points to interconnect various transportation modes for the movement of people. Examples include the Eugene Airport, Eugene Amtrak Station, and intercity bus stations.

Passenger rail

Intercity passenger rail is part of the state transportation system. Amtrak is the company that controls the railroads that carry passengers in the United States. Amtrak provides service south to California, east to the rest of the continental United States, and north to Canada. It is a transit system that operates, in whole or part, on a fixed guideway.

Passenger train

A railroad train for only passengers, rather than goods.

Passenger vehicle

Motor vehicles with at least four wheels, used for the transport of passengers, and comprising no more than eight seats in addition to the driver's seat. Light commercial vehicles are motor vehicles with at least four wheels, used for the carriage of goods.

Pavement condition rating (PCR)

Pavement condition ratings provide an assessment of pavement condition. Local and state road agencies use a pavement management process that provides, analyzes, and summarizes information for use in selecting and implementing cost-effective pavement construction, rehabilitation, and maintenance programs designed to accommodate current and forecasted traffic.

Pedestrian

A person traveling on foot, in a wheelchair, or in another health-related mobility device.

Pedestrian facility

A facility provided for the benefit of pedestrian travel, including walkways, protected street crossings, crosswalks, plazas, signs, signals, pedestrian-scale street lighting, and benches.

Per capita

For each person.

Performance measure

Predetermined indicators monitored during the life of the RTP as a method of evaluating the plan's effectiveness. To provide numerical targets needed to assess plan progression, *benchmarks* are established for each performance measure at five-year intervals.

Person trip

A movement from one address to another by one person by any mode.

Policy

Statement adopted as part of a plan to provide a specific course of action that moves the community towards attainment of its goals.

Posted speed

The speeds indicated on signs along the roadway. When speeds differ from statutory speeds there must be a posted sign indicating the different speed.

Probe data

Data generated by monitoring the position of individual vehicles (i.e., probes) over space and time rather than measuring characteristics of vehicles or groups of vehicles at a specific place and time.

Protected bike lane

Also referred to as a bike lane or cycle track. This is a bike lane that is physically separated from auto traffic. Typically they are created using planters, curbs, parked cars, or posts and are essential for creating a complete network of bike-friendly routes. For bicyclists, safety increases significantly when there is a physical separation from motorists through infrastructure.

Public health

The health of the population as a whole, especially as monitored, regulated, and promoted by the state.

Public transportation

Also called Transit. Any form of transportation open to the general public. Public transportation can include buses, trains, streetcars and trolleys, Dial-A-Ride, Mobility on Demand, bike share, electric scooters, etc.

Regional freight system

Identifies the transportation networks and freight facilities that service the region and state's freight mobility needs.

Regional roadway system

Streets with classifications of arterial and major collector.

Regional Transportation Plan (RTP)

A long-range transportation plan that is developed and adopted for the CLMPO planning area covering a planning horizon of at least 20 years. In non-attainment and maintenance areas, RTPs are updated every four years through the metropolitan transportation planning process. The RTP is a blueprint to guide investments for all forms of travel – motor vehicle, transit, bicycle, and walking – and the movement of goods and freight throughout the CLMPO area. The plan identifies and analyzes the needs of the metropolitan region and creates a framework for implementing policies and project priorities.

Regional transportation system

The system is limited to facilities of regional significance, generally including regional arterials and throughways, high capacity transit and regional transit systems, regional multi-use trails with a transportation function, bicycle and pedestrian facilities that are located on or connect directly to other elements of the regional transportation system, air terminals, as well as regional pipeline and rail systems.

Reliability

This term refers to consistency or dependability in travel times, as measured from day to day and/or across different times of day. Variability in travel times means travelers must plan extra time for a trip.

Resiliency

The ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions.

Ride-hailing services

Also known as transportation network companies or TNCs. This includes companies like Uber and Lyft that use apps to connect passengers with drivers who provide rides in their personal vehicles.

Rideshare

A transportation demand management strategy where two or more people share a trip in a vehicle to a common destination or along a common corridor. Private passenger vehicles are used for carpools, and some vanpools receive public/private support to help commuters.

Road users

A motorist, passenger, public transportation operator or user, truck driver, bicyclist, motorcyclist, or pedestrian, including a person with disabilities.

Roadway capacity

The maximum sustainable flow rate at which vehicles or persons reasonably can be expected to traverse a point or uniform segment of a lane or roadway during a specified time period under given roadway, geometric, traffic, environmental, and control conditions.

Roundabout

A circular intersection with yield control on all approaches, islands to separate flows of traffic from each other and pedestrians, and geometric features to slow down traffic. Roundabouts have many benefits over stop-controlled and signalized intersections. They have proven safety benefits, often have lower delays, can lead to less congestion, can reduce the need for widening, reduce speeds in and around the roundabout, and as a result can benefit the surrounding community.

Safety (in transportation)

Protection from death or bodily injury from a crash through design, regulation, management, technology, and operation of the transportation system.

Safe Routes to School (SRTS)

A comprehensive engineering/education program focused on youth school travel that aims to create safe, convenient, and fun opportunities for students to walk, take transit, or roll (bike, scooter, mobility device, etc.) to and from school. The Safe Routes to School program incorporates the following six E's: equity, engagement, engineering, education, encouragement, and evaluation.

Shared trips

Trips taken by multiple passengers traveling in a single vehicle, including carpools, vanpools, transit trips, bike share, and some ride-hailing or car share trips.

Single-occupancy vehicle (SOV)

A vehicle, usually referring to a private automobile, that is carrying only one person.

Social determinants of health

Conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality of life outcomes and risks. There are five domains: Economic Stability, Education Access and Quality, Health Care Access and Quality, Neighborhood and Built Environment, and Social and Community Context. Access to food, education, healthcare, employment opportunities, and more can be linked to the transportation system.

Special transportation area (STA)

As defined by the *Oregon Highway Plan*, STAs are designated existing or future compact, mixed-use areas within an urban growth boundary in which growth management considerations outweigh the considerations underlying the highway level-of-service policy. STAs include central business districts, transit-oriented development areas, and other activity centers that emphasize non-auto travel. They are high-density areas with an interconnected local street network. They are not located on interstates or limited-access highways and are not encouraged on major designated freight routes.

Stakeholders

Individuals and organizations with an interest in or who are affected by the transportation planning process, including federal, state, regional, and local officials and jurisdictions, institutions, community groups, transit operators, freight companies, shippers, non-governmental organizations, advocacy groups, the general public, and people who have been traditionally underrepresented or excluded.

State highways

In Oregon, a network of roads that are owned and maintained by the Highway Division of ODOT, including Oregon's portion of the Interstate Highway System.

State Implementation Plan (SIP)

An air quality plan mandated by the Federal Clean Air Act that contains procedures to monitor, control, maintain, and enforce compliance with federal air quality standards.

Statewide Transportation Improvement Program (STIP)

Statewide budget and programming document for funding. Required by the Intermodal Surface Transportation Efficiency Act (ISTEA) legislation as a prioritized, fiscally constrained list of transportation projects that covers, at a minimum, a three-year period. STIPs are compiled by ODOT in order to program authorized levels of federal funding.

Strategy

Involves setting goals, determining actions to achieve the goals, and mobilizing resources to execute the actions. A strategy describes how the ends (goals) will be achieved by the means (resources).

Strategic Plan

Defines the desired direction and outcomes to guide decisions for allocating resources to pursue a strategy.

Street

Generally, a gravel, concrete, or asphalt-surfaced facility. The term collectively refers to arterial, collector, and local streets that are located in mixed-use corridors, industrial areas, employment areas, and neighborhoods. While the focus for streets has been on motor vehicle traffic, they are designed as multimodal facilities that accommodate bicycles, pedestrians, and transit, with an emphasis on vehicle mobility and special pedestrian infrastructure on transit streets.

Supply

The capacity of specific transportation infrastructures and modes over a time period.

Sustainable

A method of using a resource such that the resource is not depleted or permanently damaged.

Sustainability

Using, developing, and protecting resources in a manner that enables people to meet current needs and provides that future generations can meet future needs, from the joint perspective of environmental, economic, and community objectives.

Systems development charge (SDC)

A fee collected from new development by local governments to pay for offsite public facility improvements to mitigate impacts associated with development. SDCs are imposed on development projects by local governments to cover the capital costs for certain types of infrastructure and public facilities needed to serve those developments. Under Oregon's SDC Act of 1989, transportation facilities are eligible capital improvements that may be funded by SDCs. Examples include arterial and collector streets; acquisition of street rights-of-way, easements, and other property interests necessary to construct a capital improvement; and traffic control devices.

System efficiency

Strategies that optimize the use of the existing transportation system, including traffic management, employer-based commute programs, and individualized marketing.

System management

A set of strategies for increasing travel flow on existing facilities through improvements.

Target

A numerical goal or state direction to be achieved for which quantifiable or directional targets may be set, assigning a value to what the RTP is trying to achieve. Targets are expressed in quantitative terms and provide an important measure of progress toward achieving different goals within a timeframe specified for it to be achieved.

Throughways

Controlled access (on-ramps and off-ramps), freeways, and major highways.

Traffic

Movement of motorized vehicles, non-motorized vehicles, and pedestrians on transportation facilities. Often traffic levels are expressed as the number of units moving over or through a particular location during a specific time period.

Traffic calming

A variety of techniques designed to reduce the speed and impacts of motor vehicle traffic. It is an attempt to mix the different modes of transportation and to create an efficient mix between them. Examples in this region include road humps, bulb outs at intersections, and roundabouts.

Traffic management

Strategies that improve transportation system operations and efficiency, including ramp metering, active traffic management, traffic signal coordination, and real-time traveler information regarding traffic conditions, incidents, delays, travel times, alternate routes, weather conditions, construction, or special events.

Transit station

Major transit station

Provides room for three or more buses for customer transfers and to facilitate bus operations. A major transit station typically includes a larger facility than minor stations to accommodate passenger transfers (to three or more routes and/or serves major destinations) and may include parking for customers and restrooms for Lane Transit District employees or the public. A major station is usually an off-street facility.

Minor transit station

Provides room for two or three buses. Minor transit stations are primarily large bus turnouts near key intersections to facilitate customer transfers (to two to four routes) or bus operations. Minor stations may include parking. Typically, a minor transit station is an on-street facility.

Transit-oriented development (TOD)

A mix of residential, retail, and office uses, and a supporting network of roads, bicycle, and pedestrian ways focused on a major transit stop designed to support a high level of transit use. The key features of transit-oriented development include:

- A mixed-use center at the transit stop, oriented principally to transit riders and pedestrian and bicycle travel from the surrounding area;
- High density of residential development proximate to the transit stop sufficient to support transit operation and neighborhood commercial uses within the TOD; and
- A network of roads, and bicycle and pedestrian paths to support high levels of pedestrian access within the TOD and high levels of transit use.

Transportation analysis zones

A unit of geography most commonly used in conventional transportation planning models, attributing socio-economic data to geographic locations to calculate travel patterns.

Transportation demand management (TDM)

Also known as transportation options. The application of a set of strategies that affect when, where, and how much people travel in order to make more efficient use of transportation infrastructure and services. Strategies include offering other modes of travel such as walking, bicycling, ride-sharing, and vanpool programs; education such as individualized marketing, policies, and regulations; and other combinations of incentives and disincentives that are intended to reduce drive alone vehicle trips on the transportation network.

Transportation disadvantaged

Persons who are unable to transport themselves or purchase transportation and have no form of transportation. This population group consists of low-income groups, persons with disabilities, those who are not old enough to drive and older adults. Therefore, the transportation disadvantaged must rely on public transit or paratransit services for their transportation needs.

Transportation improvement program (TIP)

Required by the Intermodal Surface Transportation Efficiency Act (ISTEA) legislation as a prioritized fiscally constrained list of transportation projects that covers, at a minimum, a three-year period. TIPs are compiled by a metropolitan planning organization in order to program authorized levels of federal funding.

Transportation options (TO)

A program intended to increase the number of transportation options to reduce the number of single-occupant vehicles and to reduce congestion instead of increasing capacity on roadway facilities.

Transportation Planning Rule (TPR)

An Oregon state planning administrative rule, adopted by the Land Conservation and Development Commission to implement state land use planning Goal 12, *Transportation*. The TPR requires ODOT, MPOs, Counties, and Cities to prepare a Transportation System Plan to identify transportation facilities and services to meet state, regional, and local needs, as well as the needs of the transportation disadvantaged and the needs for movement of goods and services to support planned industrial and commercial development.

Transportation system

Various transportation modes or facilities serving as single unit or system.

Transportation system management and operations (TSMO)

A set of strategies for increasing travel flow on existing facilities through improvements such as ramp metering, traffic signal synchronization, incident response, and access management.

Transportation system plan (TSP)

A plan for one or more transportation facilities that are planned, developed, operated, and maintained in a coordinated manner to supply continuity of movement between modes, and within and between geographic and jurisdictional areas. Specific requirements are detailed in the Transportation Planning Rule.

Travel demand model

A technique for predicting future human choices in travel by using current travel trends in conjunction with future population, employment, and land use projections.

Travel time

The measure of time that it takes to reach another place in the region from a given point for a given mode of transportation. Stable travel times are a sign of an efficient transportation system that reliably moves people and goods throughout the region.

Travel time reliability

Refers to consistency or dependability in travel times, as measured from day to day and/or across different times of day. Variability in travel times means travelers must plan extra time for a trip.

Trip

A one-way movement of a person or vehicle between two points.

Unhoused individuals

Individuals without permanent shelter.

Urban growth boundary (UGB)

The politically defined boundary around an urban area beyond which no urban improvements may occur. In Oregon, UGBs are defined so as to accommodate projected population and employment growth within a 25-year planning horizon. A formal process has been established for periodically reviewing and updating the UGB so that it meets forecasted population and employment growth.

Urban standards

Standards for all arterial and collector streets that include curb, gutter, underground drainage, and sidewalks, unless otherwise noted. When provisions for bicycles are anticipated, they are specifically mentioned.

Vehicle miles of travel (VMT)

Each mile traveled by a private vehicle. For example, one vehicle that makes a five-mile car trip would generate five vehicle miles of travel. A requirement of the state Transportation Planning Rule is to reduce vehicle miles traveled per capita.

Vision Zero

A system and approach to public policy developed by the Swedish government which stresses safe interaction between roads, vehicles, and users. Highlighted elements include a moral imperative to preserve life, and that the system conditions and vehicle be adapted to match the capabilities of the people that use them.

Volume-to-capacity (V/C) ratio

This is a measure of potential roadway capacity. A ratio expressing the relationship between the existing or anticipated volume of traffic on a roadway and the designed capacity of the facility. V/C standards set ratios as a minimum operating standard. Deficiencies can be addressed by lowering traffic volumes through demand management, transit, etc.; by increasing capacity through access management, signal timing, adding lanes, etc.; or a combination of methods.

Vulnerable users

Refers to groups of people that are more vulnerable to being killed or seriously injured in traffic crashes. Vulnerable users are pedestrians, bicyclists, motorcycle operators, children, older adults, construction workers, people with disabilities, people of color, and people with low income.

ACRONYMS

ACS	American Community Survey
ADA	Americans with Disabilities Act
ADT	Average daily traffic
AV	Autonomous vehicle
BRT	Bus rapid transit
CDC	Center for Chronic Disease and Prevention
CFR	Code of Federal Regulation
CIP	Capital improvement program
CMAQ	Congestion Mitigation and Air Quality Improvement Program
CMP	Congestion Management Process
CLMPO	Central Lane Metropolitan Planning Organization
CSZ	Cascadia Subduction Zone
DEQ	Department of Environmental Quality
DLCD	Department of Land Conservation and Development
EmX	Lane Transit District's Emerald Express bus route
EPA	U.S. Environmental Protection Agency
ETR	Emergency transportation route
EUG	Eugene Airport
EV	Electric vehicle
FAST	Fixing America's Surface Transportation Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FY	Fiscal year
GHG	Greenhouse gas emissions
GIS	Geographic Information System
HIA	Health Impact Assessment
HOV	High-occupancy vehicle
HPMS	Highway Performance Monitoring System
ISTEA	Intermodal Surface Transportation Efficiency Act

ITS	Intelligent transportation systems
JTA	2009 Jobs and Transportation Act
LCDC	Land Conservation and Development Commission
LCOG	Lane Council of Governments
LMP	Limited Maintenance Plan
LOS	Level of service
LRAPA	Lane Regional Air Pollution Authority
LTD	Lane Transit District
LUM	Land use measures
MAP-21	Moving Ahead for Progress in the 21st Century
MPC	Metropolitan Policy Committee
MPO	Metropolitan Planning Organization
MTIP	Metropolitan Transportation Improvement Program
NAAQS	National Ambient Air Quality Standards
NACDD	National Association of Chronic Disease Directors
NHS	National Highway System
NHTSA	National Highway Transportation Safety Administration
NPMRDS	National Performance Management Research Data Set
OM&P	Operations, maintenance, and preservation
OAR	Oregon Administrative Rules
ODOT	Oregon Department of Transportation
OHAS	Oregon Household Activity Survey
OHP	Oregon Highway Plan
OMSC	Oregon Modeling Steering Collaborative
OSTI	Oregon Sustainable Transportation Initiative
OTC	Oregon Transportation Commission
OTP	Oregon Transportation Plan
PM	Particulate matter
PMS	Pavement management system
PMT	Project management team
PRC	Portland State University's Population Research Center
RAC	Lane County Roads Advisory Committee

RACM	Reasonably Available Control Measures
RACT	Reasonably Available Control Technology
RITIS	Regional Integrated Transportation Information System
ROW	Right-of-way
RRFB	Rectangular rapid flashing beacons
RTP	Regional Transportation Plan
SAFTEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act
SDC	Systems development charge
SIP	State Implementation Plan
SLTC	Safe Lane Transportation Coalition
SOV	Single occupant vehicle
SRTS	Safe Routes to School
STA	Special transportation areas
STBG-S	Surface Transportation Block Grant State Program
STBG-U	Surface Transportation Block Grant Urban Program
STFAC	Special Transportation Fund Advisory Committee
STIF	Statewide Transportation Improvement Fund
STIP	Statewide Transportation Improvement Program
STP	Surface Transportation Program
STS	ODOT's *Statewide Transportation Strategy: A 2050 Vision for GHG Reduction*
TA	Transportation Alternatives
TAC	Technical Advisory Committee
TAM	Transit asset management
TAP	Transportation Alternatives Program
TASC	Transportation Advisory Subcommittee
TAZ	Transportation analysis zones
TCM	Transportation control measure
TDM	Transportation demand management
TIP	Transportation improvement program
TMA	Transportation management area
TO	Transportation options
TOAC	Transportation Options Advisory Committee

TOD	Transit-oriented development
TPC	Transportation Planning Committee
TPR	Transportation Planning Rule
TRIP	Transportation Rule Implementation Project
TSI	Transportation system improvements
TSMO	Transportation system management and operation
TSP	Transportation System Plan
TUF	Transportation utility fee
UASI	Urban Areas Security Initiative
UGB	Urban growth boundary
UPWP	Unified Planning Work Program
USDOT	United States Department of Transportation
V/C	Volume to capacity
VHD	Vehicle hours of delay
VMT	Vehicle miles of travel
WAI	Walkability Action Institute