Central Lane Scenario Planning Final Report

June 2015

Amended June 5, 2025 In compliance with Oregon Administrative Rule 660-044-0025



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Acronyms and abbreviations

CLSP Central Lane Scenario Planning

DLCD Oregon Department of Land Conservation and Development

FTN Frequent Transit Network

GHG Greenhouse gas

HACSA Housing and Community Services Agency of Lane County

HUD US Department of Housing and Urban Development

ITHIM Integrated Transport and Health Impact Modeling Tool

JTA Jobs and Transportation Act

LTD Lane Transit District

MPO Metropolitan Planning Organization

ODOT Oregon Department of Transportation

PAYD Pay-as-you-drive

PMT Project Management Team

RSPM Regional Strategic Planning Model

SUV Sport utility vehicle

TAC Technical Advisory Committee

VMT Vehicle miles traveled



Background

The Central Lane Scenario Planning (CLSP) process began in response to state legislation that required scenario planning in certain metropolitan regions of Oregon. "Scenario planning" is a process for considering alternative plausible futures, allowing for communities to understand how different choices might affect different outcomes, like economic vitality or greenhouse gas (GHG) emissions, among others. The communities within the Central Lane Metropolitan Planning Organization (MPO) boundaries looked at what might happen in the region if current transportation policies are continued, and what might happen if different policies — like encouraging greater use of transit — are considered.

The CLSP project partners were tasked with selecting a preferred scenario for the region that contains strategies for reducing GHG emissions from transportation. The region is not required to implement the preferred scenario. (Only the Portland metro area is required to engage in scenario planning, adopt a preferred scenario, and implement it.) However, through the scenario planning process, the region explored different policies and strategies that could guide future decision-making.

Participants

The CLSP process was carried out by and for the communities of the Central Lane MPO. The cities of Eugene, Springfield, and Coburg; Lane County; the Lane Council of Governments; and Lane Transit District (LTD) all participated in the project. Only the local municipal governments – Eugene, Springfield, Coburg, and Lane County – were required to select a preferred scenario. The government partners formed a Project Management Team (PMT) comprised of senior staff from each jurisdiction to oversee the process.

2009 Jobs and Transportation Act

Oregon's 2009 Jobs and Transportation Act (JTA) required the MPOs that serve the Eugene-Springfield and Portland metropolitan regions to conduct scenario planning. The scenario planning process is intended to explore ways that regions might reduce transportation-related GHG emissions. The Eugene-Springfield region is not required to implement the preferred scenario. This effort was supported with funds from the Oregon Department of Transportation (ODOT).

As part of rulemaking related to the JTA, the Oregon Department of Land Conservation and Development (DLCD) developed GHG-emissions-reduction targets for each metropolitan area. Only the Portland metro region is required to meet the target reduction. The other metropolitan regions, including the Central Lane MPO, must consider the GHG-emissions-reduction target during the scenario planning process, but do not have to meet it.

The region's GHG-emissions-reduction target for 2035 is a 20 percent reduction below 2005 emissions levels. There are several caveats that apply to the reduction rule:

- The target only applies to emissions from passenger vehicles, light duty trucks, and sport utility vehicles (SUVs). Freight, farm, and transit vehicles are excluded from the target.
- Emissions reductions due to improvements in vehicle technology and vehicle fuel economy may not be included in the region's target. In other words, the region could not count reductions associated with these improvements toward the 20 percent target.
- At least one scenario developed during the process must meet the GHG-emissionsreduction target, but the final selected scenario (the preferred scenario) does not have to meet the GHG-emissions-reduction target.

The region's target was set in pursuit of the state's ultimate goal to achieve a 75 percent GHG-emissions reduction below 1990 levels by 2050.

Climate Friendly Equitable Communities Rulemaking

The state adopted new regulations in 2022, ¹ as part of the Climate-Friendly and Equitable Communities (CFEC) rulemaking, that requires jurisdictions within metropolitan areas to set performance measures and targets associated with scenario plans, track progress towards targets, and report on progress made among other requirements. The jurisdictions affected by the CFEC rules include the Cities of Eugene, Springfield, and Coburg, as well as Lane County within the Central Lane planning area. The City of Coburg requested exemption from the requirements as allowed by state rules; Lane Transit District (LTD) and the Lane Council of Governments (Central Lane MPO) are important partners.

The Central Lane Scenario Plan was approved by the Metropolitan Policy Committee (MPC) in 2015 and amended in June 2025 to address CFEC rules. The amendment is an "Implementation Chapter" to this plan and was approved by MPC on June 5, 2025. It documents the jurisdictional performance measures, performance targets, and updates that include new perspective on implementing the strategies in the original 2015 CLSP. The original CLSP completed in 2015 identified a preferred scenario for 2035. The updated rules in CFEC require that the region submit a preferred scenario that meets the reduction targets in Oregon Administrative Rule (OAR) 660-044-0025 to the Department of Land Conservation and Development (DLCD), adopt local performance measures and targets, and adopt local amendments to implement the scenario. The Implementation Chapter meets these requirements.

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¹ Department of Land Conservation and Development (DLCD) and Oregon Department of Transportation (ODOT) updated Oregon Administrative Rule (OAR) 660-012, commonly known as the Transportation Planning Rule, among other regulations. More information can be found at https://www.oregon.gov/odot/planning/pages/climate-transportation-planning.aspx.

Scenario planning process and outcomes

What is scenario planning?

Over the next twenty years, the Central Lane MPO is likely to welcome more than 60,000 new residents. Plans like those currently being developed or recently adopted – *Envision Eugene*, *Springfield 2030*, *Coburg Crossroads*, and each community's transportation system plan – establish a local vision for how each community will accommodate new residents and jobs as well as establishing a blueprint for how residents will get around the region. Scenario planning does not predict the future, but is a process for looking at long-term community aspirations and developing different paths for achieving them. Scenario planning, therefore, complements the region's established plans and policies by allowing for exploration of new paths toward the region's goals.

Regional vision

The communities of Coburg, Eugene, Springfield, and Lane County share a vision for an equitable, prosperous, and sustainable future. The region's vision provided the basis for developing the alternative scenarios and for selecting the preferred scenario. The region is notable for its compact urban form and protection of rural lands. One of the major goals of the region – expressed in *Metro Plan*, the regional comprehensive plan – is to integrate transportation and land use, and to provide a transportation system that supports choice in travel mode. From this regional vision, the communities participating in the CLSP process identified three major goals, in addition to the reduction of GHG emissions, that would be addressed by the process. Though the region is already performing well with respect to these goals, the scenario planning process provided an opportunity to explore new or enhanced transportation strategies that could help the region do even better.

Scenario planning goals

As mentioned above, the scenario planning process goals were derived from land use, transportation, and other plans that guide the region, which in turn represent the desired outcomes for multiple stakeholders and the public. These goals are to:

- Foster economic vitality
- Improve public health
- Enhance equity

A full listing of the plans that informed the goals of the process can be found in Appendix A.

Foster economic vitality

Transportation plays a critical role in the region's economy. The ability to quickly and easily move about the region is directly tied to the region's economic competitiveness. Residents already have access to many transportation options, and the region's compact growth over the last few decades means that most destinations are not far from most residents. On the other hand, congestion, traffic accidents, high healthcare costs associated with inactivity, and other inefficiencies put a drag on the local economy. Although the region performs well with respect to these issues, more congestion and a higher number of traffic fatalities are possible without intervention. The CLSP process looked at transportation strategies that could help alleviate these issues and in turn improve the economic well-being of the region.

The project team looked at four criteria to understand how different scenarios perform with respect to 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

Transportation and land use decisions have a demonstrated effect on public health outcomes. Increasingly, the discussion around efforts to increase bicycling and walking in communities has focused on the reduction in chronic disease and mortality that increased physical activity brings. Improving public health was one of the most compelling goals explored during the CLSP process – public input revealed that this goal was very important. The public health criteria evaluated during the process focused on the link between increased use of active transportation modes and positive health outcomes, including:

- Physical activity per capita
- Health benefits from increased walking and bicycling
- Cost savings due to reduced disease burden
- Change in the number of fatal or severe injury accidents

Enhance equity

"Equity" refers to the distribution of benefits and burdens of policies and projects across the community – particularly vulnerable populations. The PMT convened a special technical advisory committee early in the process to provide input on equity considerations. Equity can be difficult to quantify. Even with the advanced modeling tools available during the CLSP process, it is difficult to understand exactly where or who might be disproportionately benefited or burdened by a policy. However, the project team evaluated two quantitative criteria related to equity during the process:

- Driving costs as a percentage of household income
- Average household income by housing type

These measures provide a snapshot of how different scenarios affect different economic groups.

Reduce greenhouse gas emissions

The state adopted a GHG-emissions-reduction goal that seeks to reduce emissions 75 percent below 1990 levels by 2050. Each metropolitan region in the state was assigned a transportation emissions-reduction goal, but only the Portland metro area is required to meet its goal. According to the Central Lane MPO's 2010 *Regional Greenhouse Gas Inventory*, 31 percent of regional GHG emissions are produced from transportation in the Eugene-Springfield metropolitan area. GHG-emissions reduction was not the only goal of the process. However, it served to frame much of the scenario planning work and aided in selecting policies that are not only effective at reducing emissions, but also impart other benefits.

Evaluation criteria

The scenario planning process considered outcomes across a range of different evaluation criteria. The table below shows the criteria used to evaluate different scenarios during the project, all derived from the goals described above. The regional partners used these criteria to evaluate initial scenarios, evaluate the draft preferred scenarios, and refine and select the final preferred scenario.

CATEGORY	CRITERIA	UNIT OF MEASURE
	Driving costs as percentage of household income ¹	% of average household income
Economy and	Average household income by housing type	2005\$
prosperity	Parking costs	Average regional daily parking cost (2005 \$)
	Value of time lost to congestion ²	\$ per person per year (2005 \$)

¹ Includes both average annual vehicle ownership and operating costs.

² Value of time for personal trips is assumed to be \$12.50 per hour. From US Department of Transportation (2011).

CATEGORY	CRITERIA	UNIT OF MEASURE
Energy	Greenhouse gas (GHG) emissions per capita	Tons CO₂ per year
consumption and GHG emissions	State GHG-emissions-reductions target	Meets or does not meet target
	Petroleum fuel consumption	Gallons per capita per year
	Vehicle miles traveled (VMT)	VMT per capita (daily)
	Transit service	Revenue miles per capita (daily)
Transportation	Bicycle travel ³	Bicycle miles traveled per capita (daily)
Transportation	Pedestrian travel	Walk trips per capita (annual)
	Transit ridership	Total annual ridership
	Vehicle ownership	Average no. of vehicles per household
	Hours of congestion	Hours per capita per year
A * 1*r	Criteria air pollutant emissions	% reduction or increase in
Air quality		pollutants (compared to Reference Case)
	Legal, legislative, or regulatory barriers to implementation	Qualitative assessment
Feasibility	Public/private infrastructure costs	Qualitative assessment
i cusiomity	Local revenue from VMT fee or gas tax	Annual \$ per capita
	Political or public acceptability	Qualitative assessment
	Physical activity per capita	Number of walk and bike miles per week
	Health benefits from increased	Annual number of premature
	walking and biking	deaths avoided due to
Health		physical activity
	Chronic illness incidence	% reduction or increase
	Annual cost savings due to reduced disease burden	\$
	Annual change in fatal or injury	Increase in number of fatal or
	accidents	injury crashes over base year
Equity	Driving costs as percentage of household income	% of average household income
<u> </u>	Average household income by housing type	\$

³ This criterion represents the number of miles "diverted" from car travel and instead travelled by bike.

Timeline

The CLSP process began in 2011, with convening of the PMT and technical advisory committees (TACs) that provided guidance on specific topics, like equity and public health. The PMT, comprised of representatives of all local governments participating in the process as well as staff from LTD and the Central Lane MPO, guided the project and made key decisions throughout the process. A parallel public process that included public workshops, a project website, a scenario planning tool, and surveys provided key input that helped regional decisionmakers understand community desires and needs.

2013	2014	2015	
UNDERSTAND	TEST & LEARN	REFINE & SELECT	
Understand existing policies Develop evaluation measures	Develop alternative scenarios Evaluate and compare	Refine scenarios Tailor individual choices for each jurisdiction	
Determine baseline for comparison		Cooperatively select a preferred scenario	

Parallel to the CLSP process, the region received a Sustainable Communities grant through the US Department of Housing and Urban Development (HUD). The grant allowed the region to explore best practices and develop a "toolkit" for addressing scenario planning goals — like equity — and explore issues around transportation and land use. This work helped to inform the goals for the process and provided a valuable foundation for the CLSP process. The products resulting from the HUD work are included in Appendix B.

Public outreach and stakeholder engagement

The CLSP project partners worked to involve interested stakeholders and the general public at each major step of the CLSP process. Appendix C contains sample public involvement materials. Outreach methods included the following:

Public workshops: the project team hosted three workshops to gather public input on the
three main phases of the project. The initial workshops focused on explaining the CLSP
process and goals and engaged the public on brainstorming strategies for reducing GHG
emissions from transportation. The final workshop asked for input on the level of effort
the region should take in each of the four major policy areas considered during the
process. An online survey was also created for each workshop for those who were unable
to attend in person.

Project website: early on in the process, the project team established a project website to provide general information on the project. The website provided information about upcoming public events, links to online surveys, and the *Future Builder* scenario planning tool.

Actions
Results Compared to Today

• Future Builder online scenario planning tool (right): in the later stages of the project, the team developed an online tool that allowed the public to explore different transportation strategies. The tool showed the predicted impacts of different scenarios across eight outcomes, like regional GHG emissions and public cost. Users could submit their favorite



scenario, which provided the team valuable input on what strategies and outcomes people were most interested in.

- Social service community engagement: to understand more fully the potential impacts, both positive and negative, to communities of concern, the project team met with several social service organizations, including Lane County Public Health, St. Vincent DePaul, and the local housing authority (Housing And Community Services Agency [HACSA] of Lane County). The team discussed policies and strategies with these social service providers to hear their perspectives on what impacts to vulnerable populations might occur, and what could be done to mitigate any potential negative impacts.
- Telephone survey: a telephone survey asked respondents in the region about their attitudes toward policies and strategies under consideration, and their interest in potential new revenue ideas to implement the strategies. The survey used a random sample of regional residents and produced statistically significant results on residents' attitudes toward different policies. Appendix D contains full telephone survey results.

Modeling the future

The CLSP process made use of powerful new modeling tools that aided in understanding the impacts different transportation policy choices might have on the region.

Regional Strategic Planning Model (formerly "GreenSTEP")

ODOT developed the Regional Strategic Planning Model (RSPM) as a way to forecast GHG emissions from transportation. RSPM, which performs high-level, strategic assessments of potential GHG-emissions-reduction strategies, was used extensively during the CLSP process. The model assesses the likely transportation sector GHG effects (as well as effects on congestion, household travel spending, air quality, and others) of a large variety of policies and factors. RSPM provided information on the potential impacts of different scenarios during the CLSP process and was the primary tool used to evaluate scenarios. RSPM can evaluate strategies in the following subject areas:

- Community design: includes households living in mixed-use areas, transit use, miles traveled by bike, etc.
- Pricing: includes different methods for paying for one's driving, including per-mile fees, license registration fees, and gas taxes.
- Education and marketing: includes programs that educate citizens about travel options and programs that provide incentives to change travel behavior.
- Roads management: includes strategies like access management on arterial streets and ramp metering on highways.
- Vehicle fleet and technology: includes assumptions about average fleet fuel economy and fleet mix (e.g., number of electric vehicles). In setting the GHG-emissions-reduction target for both the state and metropolitan areas, the DLCD accounted for vehicle fleet and technology changes at the state level, so the CLSP process focused on the impacts and benefits of other policy changes.

These five policy areas framed the policies and strategies considered during the scenario planning process. More information on RSPM can be found in Appendix B.

What is "active transportation?"

Active transportation refers to any form of human-powered transportation – walking, cycling, skating, etc. Public transit is also often included as an "active" mode because users typically walk or bike to and from their bus or train stops.

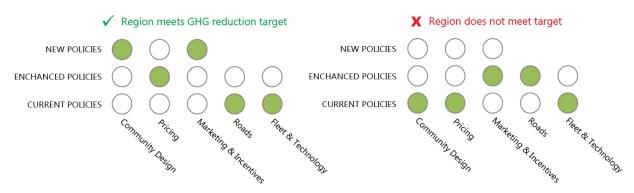
Integrated Transport and Health Impact Modeling Tool (ITHIM)

ITHIM is a tool for evaluating the morbidity and mortality effects of different transportation policies. ITHIM, developed by the United Kingdom Public Health Research Center, was used to model the public health outcomes related to physical activity, safety, and air pollution. Changes in physical activity through policies supporting active transportation provide many health benefits to users, including reductions in chronic

diseases (heart disease, cancer) and reduced mortality. Safety benefits are realized from policies that decrease vehicle miles traveled (VMT). Chronic diseases related to air pollution are also

reduced with less fossil fuel combustion. ITHIM estimates the combined effects of these public health factors and monetizes⁴ the total health care cost savings.

Sensitivity testing



The project team tested different policy scenarios to understand which combinations of policies were most effective in reducing regional greenhouse gas emissions. It also showed which combinations of policies reached the region's greenhouse gas emissions reduction target.

To understand how effective different policies are at reducing GHG emissions, the project technical team conducted sensitivity testing with RSPM. Sensitivity testing was conducted with respect to only one variable – GHG emissions. Other impacts – public health, equity, or the economy – were not quantified with RSPM or other models. Sensitivity testing gave the PMT a sense of how policies interact to reduce GHG emissions from transportation, and what level of aggressiveness is needed to achieve state emissions targets.

This testing showed that Pricing strategies (changing the way residents pay for driving and/or increasing the cost of driving) are very effective by themselves at reducing GHG emissions. Community Design strategies, like increasing transit service, bicycling, and walking, were also effective when applied alone. The testing found that only Roads Management strategies were not very effective at reducing emissions. This testing showed that the region cannot meet its GHG-emissions-reduction goal without applying a mix of strategies.

POLICY AREAS EXAMPLE STRATEGY

COMMUNITY DESIGN	Implement a bike sharing program
PRICING	Support increases in the state or local gas tax
MARKETING/INCENTIVES	Expand car-sharing in the region
ROADS	Coordinate traffic signal timing
FLEET & TECHNOLOGY	Support the state's low-carbon fuel standard

⁴ "Monetization" means that the value of health benefits and reduced mortality – in terms of reduced health care costs, willingness to pay for reduced mortality risk, and other factors – are added up to produce the total dollar benefits to the region.

Scenario development

Reference scenario

As part of the first step of the scenario planning process, the project team developed and refined a 2035 reference scenario.⁵ The reference scenario is the baseline by which alternative scenarios are compared; it approximates the future if current policy direction is carried out without significant changes. The reference scenario represents the best representation about how current policy direction could be implemented over the next 25 years⁶. This work formed the baseline against which alternative future scenarios were compared.

The technical team initially developed the reference scenario assumptions based on policies in current and recently completed land use and transportation plans in the region. The project team translated the vision, goals, and objectives from these plans — as well as assumptions about future levels of funding — into specific inputs for use in RSPM. The project team used state assumptions from a similar planning effort for the future vehicle fleet, fuel mix, and other technologies. RSPM was then used to estimate future GHG emissions, miles driven per capita, hours of vehicle delay, and other performance measures.

The reference scenario revealed that the region is making progress in many areas. Key findings include the following:

- Under current policy direction, the region's per capita GHG emissions from light vehicles decrease by 3 percent from 2005 levels (the state target is 20 percent).
- Biking and walking increase, and air pollution and fuel consumption decrease. The project team used existing community goals for walking and biking to model rates of biking and walking in 2035.
- While vehicle ownership and maintenance costs increase, vehicle operations costs for households decrease.
- Per capita vehicle miles traveled stays about the same and delay increases on the transportation system.

A memo describing full reference scenario results is included in Appendix E.

Alternative scenario development

The reference scenario provides a baseline for comparing alternative scenarios. The project team initially created alternative scenarios based on several themes. The "themes" were created by the project team to organize different strategies and understand how different policies interact

⁵ The Department of Land Conservation and Development chose 2035 as the target year in establishing GHGemissions-reduction targets. The 2035 reduction targets are intended to help the state reach 2050 emissionsreduction goals.

⁶ The CLSP team used 2010 as the "current year" to coincide with the data inputs in the modeling software used for the process.

to reduce GHG emissions. The themes, like "individual action" and "transit friendly, walkable communities," added more context to the sensitivity testing and helped to organize the policies into more realistic packages.

Each of these themes contained a mix of strategies. For example, the "transit friendly, walkable communities" theme contained strategies that increased transit service and improved bicycling and walking infrastructure. The results of these themes were instructive, and allowed the PMT to

craft two alternative scenarios to fully test with the RSPM and ITHIM tools. The two alternative scenarios – Scenario B (Enhance Existing Policies) and Scenario C (Explore New Policies) – represent maximizing actions consistent with current policy direction and implementing new policies, respectively. The reference scenario (Scenario A) and

EXPLORE NEW POLICIES

C New policies or actions that build on existing policies

ENHANCE EXISTING POLICIES

B Maximize actions consistent with current policies, but goes further Policies

REFERENCE A Adopted plans and current policy direction

Scenarios B and C were evaluated with respect to a full range of evaluation criteria.

Scenario B met the state's GHG-emissions-reduction target and Scenario C exceeded the target. Both Scenarios B and C would generate considerable public health benefits. For example, both scenarios resulted in an excess of \$30 million in reduced health care spending due to decreases in the prevalence of some chronic diseases. Full evaluation results are contained in Appendix H.

The results of analyzing Scenarios A (reference scenario), B, and C – in addition to public input – provided the full context needed for decisionmakers in the Central Lane MPO to develop the preferred scenario.



The preferred scenario

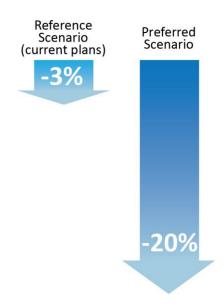
The JTA requires the local governments in the Central Lane MPO to cooperatively select a "preferred scenario." The JTA also requires local governments to consider at least one scenario that accommodates planned population and employment growth while achieving a reduction in GHG emissions from passenger vehicles. The preferred scenario was developed based on testing a variety of scenarios, comparing those scenarios to local goals, and gathering input from local decisionmakers and the public. The preferred scenario is comprised of strategies in seven policy areas – active transportation (bicycling and walking), transit, fleet and fuel changes, pricing, parking management, education and marketing, and roads – that could meet regional goals and the state's GHG-emissions-reduction target. With the preferred scenario, the region could expect a 20 percent per capita reduction in GHG emissions from light vehicles over 2005 levels, meeting the state's GHG-emissions-reduction target for the region. The region can expect about a 3 percent reduction in per capita emissions if current plans and policies are implemented (the "reference scenario").

The local governments – Lane County and the cities of Coburg, Eugene, and Springfield – are not required to implement the preferred scenario and are not mandated to select any particular set of strategies that support the preferred scenario.

Within each policy area, there are land use and transportation strategies that could be employed by one or more jurisdictions to move in the direction of the preferred scenario. The strategies are intended to be flexible and should be reconsidered over time. Most importantly, the preferred scenario is not a statement of regional policy and the strategies are not intended to be directive and are not regulatory.

The elements of the preferred scenario are interrelated. For example, expansion of the transit system can result in more walking and biking, and greater public health benefits. In addition,

How much does the preferred scenario reduce greenhouse gas emissions?



encouraging drivers to switch to other travel modes only works if they have viable options (such as robust transit, walking, and bicycling infrastructure).

A balanced approach

The preferred scenario represents a balanced approach toward investment in the following seven areas:

- Active transportation
- Fleet and fuels
- Transit
- Pricing
- Parking management
- Education and marketing
- Roads

The preferred scenario includes:

- A significant investment in transit, active transportation, and education and marketing programs
- Some change in the way drivers pay to use the system
- Continued investment in optimizing roadways in the region
- Continued support for the state's assumptions about changes to vehicle and fuel technology
- Continued policies related to parking pricing and availability

The preferred scenario is most aggressive in "education and marketing" strategies, which are relatively inexpensive, but magnify benefits from investments in other areas like active transportation and transit. The preferred scenario assumes modest investment in roadway optimization strategies that feature strongly in current plans and policies. Investment in other strategies lies in between these two. The preferred scenario does not rely too heavily on any one policy area. Instead, it is a realistic and balanced mix of investments that would make significant progress toward regional goals.

Challenges to advancing the preferred scenario

While the preferred scenario will support positive outcomes, current funding for transportation programs, infrastructure, and operations would not support the preferred scenario's increased level of investment. New revenue sources – local, regional, or federal – would be required to make the necessary investments to support the preferred scenario. While, the strategic analysis that supported the scenario planning process represents a sophisticated way of understanding how policies interact, the analysis was conducted at a regional level and considered policy areas broadly. Before changing policy, jurisdictions may want to explore tradeoffs not included in this analysis, such as developing cost estimates, a detailed cost-benefit analysis, or a targeted analysis of the geographic distribution of benefits and impacts.

Achieving the preferred scenario

While the preferred scenario is intended to be a broad statement of shared goals, it is important to understand what it might take to get to those goals. The following sections describe the level of investment in each strategy area and potential strategies that support that level of investment. These strategies are intended to be flexible and to allow each jurisdiction to choose how to support the goals defined in the preferred scenario.

Active transportation: Invest beyond existing plans

Bicycling and walking (along with other "active" ways of getting around) are important ways for residents of central Lane County to get around the region. Eleven percent of regional trips are made by bicycling and walking today. The preferred scenario calls for significant investments in active transportation. Changing demographics, including lower car ownership rates among Millennials, may contribute to this shift. However, the magnitude of change called for in the preferred scenario would require behavior change as well as new infrastructure and creative

uses of fixed rights-of-way. For this reason, education and marketing strategies may be as important as active transportation strategies in achieving the levels of biking and walking envisioned in the preferred scenario.

Active transportation strategy #1: Build bicycling and walking projects in local 20-year plans.

The recently updated Coburg and Springfield Transportation System Plans and the Eugene Pedestrian and Bike Master Plan include biking and walking investments. To achieve the biking and walking mode shift envisioned in the preferred scenario, the 20-year plans for biking and walking improvements would need to be fully implemented. Special focus would need to be directed toward

Active transportation: What would it take?

The preferred scenario could be supported by major increases — between three and five times current rates — in biking and walking in all cities in the region. Achieving this would require a combination of new biking and walking facilities and supportive programs to educate people about active transportation opportunities and making active modes more convenient. It might require creative use of available rights-of-way to accommodate all road users.

"separated" bicycle facilities, like bicycle tracks and off-street paths. These types of facilities are the most comfortable for riders to use.

Active transportation strategy #2: Dedicate a larger share of local transportation dollars to constructing and maintaining biking and walking projects.

Currently, less than 5 percent of regional transportation funds are spent on biking and walking projects that are not associated with a roadway project. To fully implement local plans, additional funding would need to be spent on biking and walking projects. In addition to capital funding to build new infrastructure, local governments would also need to identify additional funding for maintenance and operations of active transportation facilities. This may require

identifying new funding sources, using a greater share of existing funds for biking and walking projects, or expanding existing programs like ConnectOregon that fund multimodal projects. Depending on the funding source, this may mean working with state officials to remove barriers to using some kinds of transportation funding on active transportation projects.

Active transportation strategy #3: Implement a bike share program.

To provide residents with more transportation choices, particularly for short trips, the region could implement a bike share program. Bike share programs enable more people to choose bicycling for some trips by providing easy access to bikes in areas where bike trips might make sense because parking is limited or distances are short.

Active transportation strategy #4: Developer incentives to construct high-quality bike and pedestrian infrastructure.

As new areas are developed, Eugene, Springfield, Coburg, and Lane County could choose to require or encourage (through incentives) developers to build high-quality bike and pedestrian infrastructure like off-street paths, bicycle tracks, buffered/protected bike lanes, and wide sidewalks in new master planned areas.

Active transportation strategy #5: Expand Safe Routes to Schools programs.

Safe Routes to Schools programs encourage students to bike and walk to school. Currently, Eugene and Springfield partner with Eugene 4J School District, Bethel School District, and Springfield School District to encourage students to choose active options for getting to and from school. With this strategy, local governments could expand this program by supporting partners in applying for Safe Routes to Schools grants; constructing infrastructure projects that make biking and walking near schools safe; or increasing funding for Safe Routes to Schools programs in the region.

Active transportation strategy #6: Encourage development of healthy, walkable neighborhoods.

Local land use plans call for the development of healthy, walkable neighborhoods where residents can meet many of their daily needs by walking or biking. Local governments could encourage development of these types of neighborhoods consistent with their current comprehensive plans through developer incentives such as tax exemptions, reduced parking requirements, restructured system development charges, and programs that allow additional density for development that meets certain requirements.

Fleet and fuels: Invest in existing plans

A key strategy for reducing light-duty vehicle fuel consumption and subsequent GHG emissions is for the vehicle fleet to become more fuel efficient. Federal fuel-efficiency standards have already increased fuel economy and will continue to do so into the future. Advanced vehicle technologies like electric and plug-in electric are making up a greater share of vehicle sales each year. This trend is being supported by a multi-state effort, which includes Oregon, through the

*Multi-State Zero Emissions Vehicle Action Plan.*⁷ In addition, the state of Oregon's Low Carbon Fuel standard seeks to decrease the carbon intensity of conventional gasoline and diesel fuel, helping to reduce emissions.

Transit: Invest beyond existing plans

The communities of the Central Lane MPO benefit from accessible, frequent, and convenient transit service. Transit service provided by the LTD is more productive than most of its peer agencies. Improving transit service provides many community benefits. As part of the preferred scenario, Lane County and the cities of Coburg, Eugene, and Springfield would need to support major investments in the transit system to achieve an increase in per capita transit service and in ridership.

Transit strategy #1: Support a stable source of funding for transit capital investments.

As state and federal dollars become scarcer, LTD may need to rely more heavily on local sources of revenue for major capital investments. Federal grant funding is becoming more competitive, meaning LTD may need to provide up to 50 percent matching funds for capital projects (instead of 10 or 20 percent). If implemented, the local governments in the region would need to support LTD in identifying a stable source for future capital funding.

Transit strategy #2: Support LTD in identifying a stable source of funding for transit operations and maintenance.

The payroll tax, in addition to fare revenue, funds most of LTD's operations and maintenance costs. To achieve the level of transit ridership envisioned in the preferred scenario, LTD would need a stable, sustainable source of funding beyond the current payroll tax. If implemented, the local governments in the region would need to support LTD in identifying a stable source for future transit operations and maintenance funding.

Transit strategy #3: Support full implementation of the Frequent Transit Network (FTN) described in LTD's Long Range Transit Plan.

LTD's Frequent Transit Network (FTN) consists of transit routes with service frequencies of every 15 minutes or better all day, service at least 16 hours of the day, and other distinct features. The FTN is the backbone of LTD's system, providing high-quality, high-frequency service. To achieve the level of transit ridership envisioned in the preferred scenario, LTD would need to implement the FTN. This includes seven EmX lines and improved transit service on other high-performing routes, as well as redesigned local transit service.

Transit strategy #4: Encourage new development along FTN corridors.

Eugene and Springfield each have existing policies that support employment and residential development along the FTN. To encourage redevelopment in these areas and to achieve needed

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⁷ http://www.deq.state.or.us/aq/orlev/

densities to support increased transit and commercial services, Eugene and Springfield could provide incentives such as tax exemptions, reduced parking requirements, restructured system development charges, and density bonuses for new housing, retail, or employment in designated corridors. Both cities are already implementing many of these strategies. In addition, design considerations like wide sidewalks, landscaping, street lighting, and others contribute to successful transit streets. These programs and design considerations are likely to encourage walking and biking, as well as transit use.

Transit strategy #5: Improve transit access by focusing bicycling, walking, and safety improvements near transit stops and enhancing options for linking biking and transit trips.

For transit service to work in the region, residents need safe access to transit stops on foot or bike. Local governments could support this access by focusing on bicycling and walking investments such as new bike facilities, wayfinding signage, sidewalks, and improved pedestrian crossings near transit stops. LTD and local governments could also work together to enhance opportunities for community members to link biking and transit trips by offering secured bike storage at transit stops or more capacity for carrying bikes on buses. Integrating bike share programs with transit can also help bridge the "last mile" for transit users. In other words, bike share can allow transit users to quickly span the last part of their journey to their destination once they have gotten off the bus.

Transit strategy #6: Support increased service frequencies and support expanded service hours.

LTD currently has limited weekend and evening service on many routes and operates some routes with limited frequency. With this strategy, local governments could support LTD in identifying how to build partnerships to support transit, and identifying funding sources for transit operations to allow for new routes and increased service hours and frequencies.

Transit strategy #7: Improve rider experience.

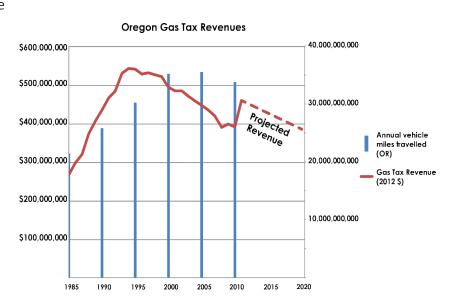
Transit amenities like comfortable shelters, real-time traveler information, and electronic fare collection can make transit use easier and more comfortable. Other strategies, like adequate lighting, improve rider perceptions of safety. Local governments could support LTD in improving rider amenities by creating land use codes that allow LTD to place shelters along routes and supporting other LTD initiatives.

Pricing: Invest beyond existing plans

Changing the way residents pay for driving by charging a different combination of taxes and fees could provide increased revenue for investing in the multimodal transportation system. The central Lane County region, along with most other jurisdictions in Oregon and the US, have long relied on federal and state revenues to fund construction of the transportation system. However, revenues from both these sources (which, in large part, come from user fees like fuel taxes) are stagnating or declining.

Funds for operating and maintaining the system are even more constrained. As new vehicle technologies like plug-in hybrid and electric vehicles become more common, traditional user fees like fuel taxes will become less viable and less equitable. Restructuring the way we pay for maintaining and improving the transportation system can support the investments that would be required to realize the preferred scenario. In addition to enhancing revenues, restructuring transportation user fees can also encourage drivers to use other transportation modes for more

of their trips, and help ensure that everyone pays for their use of the transportation system. The preferred scenario may be supported by a gradual change from the existing gas tax to a vehicle miles traveled fee, as well as new taxes and fees that provide additional local revenues to pay for transportation projects. Parking pricing is considered separately as its own strategy.



Pricing strategy #1: Support state efforts to implement a vehicle miles traveled fee.

The State of Oregon has been exploring a vehicle miles traveled fee through the Road Use Charge program. While local governments in the region cannot implement a vehicle miles traveled fee, they could support the state's implementation efforts.

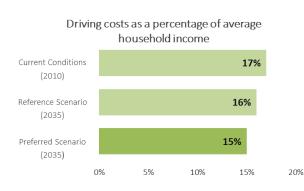
Pricing strategy #2: Support Lane County's efforts to raise funds for transportation operations and maintenance.

Pricing: What would it take?

Without changes to the current fuel tax system and rate, Oregon will have less to invest in our transportation system in the future. Introduction of a vehicle miles traveled fee is one way of maintaining a user fee for our roadways as electric and plug-in hybrid cars become more ubiquitous on the state's roadways.

Counties, under Oregon law, are able to enact a local vehicle registration fee. Lane County could seek an increase in the vehicle registration fee or other means to increase funds available for maintenance and operation of the region's transportation system.

Pricing strategy #3: Support the private sector in fuller roll-out of pay-as-youdrive insurance.



Pay-as-you-drive (PAYD) insurance is a newer form of automotive insurance that bases premiums on miles traveled instead of charging customers a lump sum each month. This flexibility allows drivers an incentive for choosing non-driving options, resulting in cost savings for people who drive fewer miles. Prior to implementation, this strategy would need to be evaluated in terms of the impact on the state's insurance market.

Pricing strategy #4: Support increases in the state and local fuel tax.

While replacing the state and local gas tax with a vehicle miles traveled fee is a long-term goal, local governments could support increases to the state fuel tax, including indexing the state fuel tax to inflation. In addition, local governments could consider increasing local fuel taxes and indexing local fuel taxes to inflation to increase funding for roadway operations and maintenance.

Parking management: Invest in existing plans

Managing parking both for commuters and for other trips (like shopping downtown) is an effective tool for making more efficient use of the limited parking supply and reducing the need for additional parking. Parking management is implemented through local development codes.

Managing parking works best when used in a complementary fashion with other strategies; it is less effective in areas where transit or bicycle and pedestrian infrastructure is lacking. The preferred scenario calls for managing parking consistent with existing plans.

Parking management strategy #1: Increase fees for long-term parking in some areas.

Commuters already pay to park in downtown Eugene and the area around the University of Oregon. Eugene and Springfield may choose to expand the areas where commuters pay to park or to raise parking fees for publicly owned parking.

Parking management strategy #2: Allow developers greater flexibility in providing parking.

Local governments generally require developers to provide on-site parking for new development. Local governments may choose to revise development codes to remove minimum parking requirements or to encourage developers to decouple parking costs from rent costs for both residential and commercial properties. These changes would allow developers to respond to market demand for parking and reward households and businesses that do not need parking.

Education and marketing: Invest beyond existing plans

Education and marketing programs are effective ways to change driver behavior and to make other investments, such as those in transit and active transportation, more effective. Education and marketing programs could include workplace commuting programs, individual marketing programs (like SmartTrips), as well as encouraging expansion of car sharing programs. Other education programs encourage "eco driving" practices (like keeping tires inflated and accelerating slowly from stops) to reduce vehicle fuel consumption and emissions. (ODOT currently has a program called "EcoDrive" to encourage these habits.)

Education and marketing strategy #1: Expand individual marketing programs like SmartTrips.

Eugene and Springfield have already launched effective SmartTrips programs. These programs could be expanded to more households and possibly targeted to populations like Spanish-speaking households.

Education and marketing strategy #2: Support eco driving practices.

Eco driving practices (like choosing low rolling resistance tires, keeping tires properly inflated, choosing to drive the household's most efficient vehicle for most trips, and accelerating slowly from stops) help to reduce emissions. The local governments in the region could support widespread adoption of these practices through education and marketing campaigns.

Education and marketing: What would it take?

With the preferred scenario, more than half of households and employees would participate in trip-reduction programs. This would require expanding programs as well as improving the effectiveness of those programs.

Education and marketing strategy #3: Expand car sharing in the region.

Many residents need access to a car for some trips. Expanded car sharing, implemented by the private sector, could reduce the need for vehicle ownership and encourage residents to use biking, walking, transit, and ridesharing for more trips. Expanded car sharing could include support for peer-to-peer car sharing or for traditional car sharing in dense areas.

Education and marketing strategy #4: Expand participation in workplace commute reduction programs.

Workplace commute reduction programs could include incentives for walking, biking, and taking transit to work, or for encouraging compressed work weeks or telecommuting. The region could support businesses in expanding workplace commute reduction programs by providing information to employers and, possibly, incentives to employers that participate.

Education and marketing strategy #5: Expand transit pass programs.

Currently, 65 percent of LTD riders have some sort of transit pass or pay an otherwise reduced fare. Transit pass programs are an effective way to increase transit ridership. For example, youth

passes promote transit use habits that make them more likely to be adult transit riders. Local governments could support expanded transit pass programs by supporting residential pass programs or student pass programs.

Education and marketing strategy #6: Support implementation of the Regional Transportation Options Plan and the state's Transportation Options plan.

The Regional Transportation Options Plan defines regional goals and strategies to support walking, biking, transit, and ridesharing. The state's Transportation Options plan sets a similar policy context for state support of transportation options. Local governments could support these plans by adopting supportive policies in transportation system plans; funding projects and programs to support transportation options; and encouraging employees to explore alternatives to driving alone to work.

Roads: Invest in existing plans

Many people in the region will continue to get around primarily by driving. State, regional, and local transportation plans call for optimizing the existing transportation system before expanding roadways in the region. The preferred scenario calls for implementing these existing plans and implementing roadway optimization projects such as the following:

- Installing ramp meters on limited access highways
- Improving intersections by replacing signals with roundabouts or linking signals to allow for better traffic flow
- Managing access from private properties to arterial roadways
- Improving incident response to reduce congestion

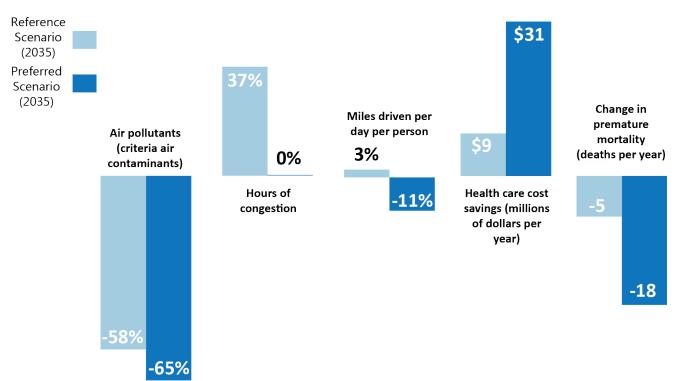


Preferred scenario outcomes

The investments and strategies in the preferred scenario are likely to have many positive impacts on the region. The CLSP team used sophisticated modeling tools to understand the potential effects of implementing the preferred scenario across a range of different outcomes. Appendix G contains a summary of different tools that pair with the preferred scenario to help achieve these outcomes.

This section reviews the anticipated outcomes of the preferred scenario, compared to outcomes expected if current plans and policies were carried forward. Though the preferred scenario produces many benefits, the preferred scenario could also result in potential negative impacts related to equity. However, these negative impacts can be mitigated or prevented entirely, depending on implementation of the preferred scenario. See the "equity considerations" section below for further discussion of this issue.

Change as compared to today (2010)



Outcomes in 2035

The preferred scenario would help the region make progress in several different regional goal areas. The preferred scenario is compared to both current conditions and a "reference scenario." The reference scenario, which represents what is expected to occur if existing plans and policies are implemented, makes significant progress toward regional goals. The preferred scenario would make further gains in the following goal areas:

- Public health
- Transportation
- Air quality and greenhouse gas emissions
- Economy
- Equity considerations

Public health

The preferred scenario would significantly improve public health outcomes across the region compared to today. Chronic disease, premature death, and health care costs would all decline due to more residents using active transport modes, like bicycling and walking. Some of this benefit also comes from residents driving less and therefore experiencing fewer crashes. For a detailed discussion of public health methodology and results, see Appendix H.

Transportation

Even with a 25 percent expected increase in population over the next 20 years, with the preferred scenario, congestion would not increase over today's condition. Freight delay would be less with the preferred scenario than with the reference scenario. The number of miles driven per person, on average, would decrease by about 11 percent over today.

Air quality and greenhouse gas emissions

Air quality would improve, with common air pollutants decreasing by two-thirds compared to today. Per capita GHG emissions would decrease significantly. Emissions would decrease significantly due to improved fuel efficiency, new vehicle technologies, and transportation fuels becoming less carbon intensive. Additional policy actions included in the preferred scenario would reduce emissions even further.

Economy

Time lost to congestion would stay about the same as today, but would decrease compared to the reference scenario. Household driving costs, as a percentage of income, would stay about the same as today. Freight delay would be less than in the reference scenario. The preferred scenario could save more than \$50 million in annual fuel expenses. With no petroleum, production, or refining facilities in the region or the state, it is possible that much of these savings would stay in the local economy.

Equity considerations

Equity outcomes would be dependent on how policies and strategies might be implemented. For example, if bicycling and walking facilities are constructed in low-income parts of the region, equitable access to active transportation is likely to improve. Pricing and parking strategies included in the preferred scenario could have neutral or positive effects on equity if mitigation measures are implemented.

"Equity" involves the fair distribution of benefits and harms from an action. Equity is a concern with transportation projects, programs, and policies. The preferred scenario is likely to have a variety of equity impacts — good, bad, and neutral. Some of the positive or neutral impacts expected include the following:

- The overall cost to drive is unlikely to increase much under the preferred scenario. The cost to drive, as a percentage of household income, is unlikely to change significantly.
- Physical activity is likely to increase for all residents in the region, due to greater investment in bicycling and walking facilities. This would lead to a reduction in chronic illness and death for the entire region.
- The number of residents who have access to frequent transit service is likely to increase.

However, these benefits are not guaranteed. Implementation is very important for ensuring that disadvantaged groups receive their share of these benefits and do not receive a disproportionate share of harms. Some important implementation considerations include the following:

- The location of new transportation improvements in the community is critical. New projects and programs should be distributed equitably throughout the community to ensure equal access and mobility for vulnerable populations.
- Ensuring the availability of transportation options in all communities will mitigate for any potential increases in the cost to drive.
- The distribution of affordable housing in the community affects how far vulnerable populations need to travel to meet their daily needs. Special attention should be given to the siting of new affordable housing within the region for this reason.

Outcomes in 2050

The preferred scenario includes policies and strategies intended to achieve a reduction in GHG emissions from transportation by 2035. Even though 2035 is 20 years in the future as of this writing, many strategies are unlikely to reach peak effectiveness (in terms of both GHG-emissions reductions and other outcomes) for years after that. The project team looked at how outcomes might change in 2050 to get a fuller picture of how the preferred scenario might affect the region. The project team created a 2050 reference scenario to see how the future might look if current policies are carried forward to 2050, and a 2050 preferred scenario to project what would happen if the strategies in the preferred scenario are carried forward to 2050. For

reference, the region is expected to grow by over 80,000 residents by 2050, compared to the 60,000 new residents expected by 2035.

- The 2050 reference scenario results in a 23 percent decrease in per capita GHG emissions over today. The 2050 preferred scenario goes further, with an expected 35 percent reduction compared to today (2010).
- With the 2050 reference scenario, annual passenger vehicle traffic delay is expected to increase by 57 percent compared to today. Delay is expected to increase with the 2050 preferred scenario as well, but by a lesser amount about a 20 percent increase over today.
- Per capita air pollution (like ozone and other criteria air pollutants⁸) would stay about the same for both the 2050 reference scenario and the 2050 preferred scenario. Both would result in nearly a two-thirds decrease in per capita pollutants compared to today.
- The number of miles driven per day per person would increase slightly (by about 6 percent) compared to today for the 2050 reference scenario, while the 2050 preferred scenario would result in a 10 percent *decrease* in miles driven per day per person.

⁸ "Criteria air contaminants" are those air pollutants regulated by the federal Clean Air Act.



Implementation

This Implementation Chapter is amended into the CLSP. It contains an updated perspective on implementing the CLSP strategies as well as the jurisdictional performance measures and performance targets required in OAR 660-044-0025. Since this Chapter was completed as a stand-alone effort to comply with updated OARs, this Chapter contains its own table of contents, acronyms, abbreviations, and appendices. The intent is to maintain what was approved by the MPC unaltered.

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Acronyms and Abbreviations

ACS American Community Survey

ADA Americans with Disabilities Act

CFAs climate-friendly areas

CFEC Climate-Friendly and Equitable Communities

CLSP Central Lane Scenario Plan

DLCD Department of Land Conservation and Development

EV electric vehicle

FTN frequent transit network

GHG greenhouse gas

HDTE Housing Diversity Tax Exemption

ICE internal combustion engine

JTA Jobs and Transportation Act

LCOG Lane Council of Governments

LTD Lane Transit District

MPC Metropolitan Policy Committee

MPG miles per gallon

MPO Metropolitan Planning Organization

OAR Oregon Administrative Rule

ODOT Oregon Department of Transportation

PMT project management team

SDCs system development charges

SEI Social Equity Index

SRTS Safe Routes to School

SS4A Safe Streets and Roads for All

STIF Statewide Transportation Improvement Fund

TSP transportation system plan

UPNs underserved population neighborhoods

VMT vehicle miles traveled

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1. Introduction

The 2009 Oregon Jobs and Transportation Act (JTA) required jurisdictions within the Central Lane planning area, among other urban areas, to conduct scenario planning to forecast different scenarios and explore ways to reduce greenhouse gas (GHG) emissions associated with transportation. In 2015, the Lane Council of Governments (LCOG) led the Central Lane Scenario Plan (CLSP) process which identified a preferred scenario 7 that includes a set of strategies that, if fully implemented, would result in a 20% reduction in greenhouse gas emissions below 2005 levels by 2035. The state adopted new regulations in 2022,8 as part of the Climate-Friendly and Equitable Communities (CFEC) rulemaking, that requires jurisdictions within metropolitan areas to set performance measures and targets associated with scenario plans, track progress towards targets, and report on progress made among other requirements. The jurisdictions affected by the CFEC rules include the Cities of Eugene, Springfield, and Coburg, as well as Lane County within the Central Lane planning area. The City of Coburg requested exemption from the requirements as allowed by state rules; Lane Transit District (LTD) and LCOG are important partners.

This report documents the jurisdictional performance measures, performance targets, and updates that include new perspective on implementing the strategies in the original 2015 CLSP. The original CLSP completed in 2015 identified a preferred scenario for 2035. The updated rules in CFEC require that the region submit a preferred scenario that meets the reduction targets in Oregon Administrative Rule (OAR) 660-044-0025 to the Department of Land Conservation and Development (DLCD), adopt local performance measures and targets, and adopt local amendments to implement the scenario. The rules allow the region to use the preferred scenario from the 2015 Central Lane Scenario Plan.

The end of this report contains appendices with additional details. Appendix A includes an update on how the region's policies, plans, and actions are aligned with and advancing the CLSP strategies and actions. The appendix also helped form a basis for a regional discussion on updating the CLSP strategies and actions as appropriate. Appendix B describes the methodology used to calculate and set targets for jurisdictions' performance measures. Appendix C describes the updates to the Preferred Scenario model that occurred as part of translating the preferred scenario into the new model format.

1.1 Process

1.1.1 Local Coordination

In 2022, LCOG worked with jurisdictional partners to address OAR 660-044-0015(2)(a)(A), which required that the Cities of Coburg, Eugene, Springfield, and Lane County submit a work program containing all the elements provided in OAR 660-044-0100 to the DLCD for review. The work plan described how jurisdictional participation and development of the CLSP implementation chapter would progress. LCOG submitted the work plan on June 29, 2023. A revised version was submitted on August 1, 2023, and DLCD issued final approval on August 18, 2023.

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⁷ Note: Per the 2009 JTA, no jurisdiction or body was required to adopt the preferred scenario; the participating jurisdictions were required to "cooperatively select" the preferred scenario.

⁸ Department of Land Conservation and Development (DLCD) and Oregon Department of Transportation (ODOT) updated Oregon Administrative Rule (OAR) 660-012, commonly known as the Transportation Planning Rule, among other regulations. More information can be found at https://www.oregon.gov/odot/planning/pages/climate-transportation-planning.aspx.

Subsequently, staff from the Oregon Department of Transportation (ODOT) and LCOG, working with the consultant Parametrix, convened as the project team in late 2023 to begin work. A jurisdictional project management team (PMT) composed of staff from Eugene, Springfield, Coburg, Lane County, and LTD guided the development of performance measures, targets, and this implementation report. The Central Lane Metropolitan Planning Organization's (MPO's) Metropolitan Policy Committee (MPC) served as the governing body and ultimately approved the performance measures, targets, and this implementation chapter.

1.1.2 Preferred Scenario Update

The original CLSP completed in 2015 identified a preferred scenario for 2035. The updated rules require that the region submit a preferred scenario that meets the reduction targets in OAR 660-044-0025 to DLCD, adopt local performance measures and targets, and adopt local amendments to implement the scenario. The rules allow the region to use the preferred scenario from the 2015 Central Lane Scenario Plan.

To satisfy the rule requirements, the region chose to rely on the 2015 CLSP to serve as the basis for a new updated model of the preferred scenario that will be submitted to DLCD. This updated preferred scenario model accounts for changes in the region that have been implemented since 2015 and incorporates more ambitious levels of the policies and investments in the Central Lane 2045 Regional Transportation Plan required to achieve the target. The updated preferred scenario results in 25.6% GHG reduction by 2045, after accounting for state and federal policies on vehicles, fuels, and pricing.

The performance measures and targets to track local implementation were developed based on the strategies contained in the 2015 CLSP. Future targets for each performance measure were set at levels to implement the preferred scenario by 2045. Target values were calculated using the VisionEval Scenario Planning tool and the LCOG Region Travel Model. Additional future year targets are provided for the year 2050 consistent with the region's metropolitan GHG reduction targets in OAR 660-044-0025. The performance targets are set from a 2024 baseline. Data used for future year reporting was provided from the LCOG Regional Travel Model and local jurisdiction data sources.

1.2 Performance Measures

To meet the rule requirements and demonstrate progress towards meeting the 2045 metropolitan GHG reduction target, the project team developed performance measures and targets in alignment with the existing CLSP and in collaboration with the local jurisdictions, LTD, LCOG, and ODOT.

Equity performance measures track progress on serving communities in underserved population neighborhoods (UPNs) to address historic and current inequities in the areas of active transportation, transit, and pedestrian access. UPNs were determined by using the ODOT <u>Social Equity Index</u> (SEI), which relies on U.S. Census American Community Survey (ACS) data to form scores for block groups ranging from Low disparity to High disparity; see Figure 1. Groups in the High disparity category were categorized as UPNs.



Figure 1. Underserved Population Neighborhoods in Eugene and Springfield
Source: ODOT Social Equity Web App

Table 1 provides an overview and description of the performance measures.

Table 1. Performance Measures

Performance Measure	Relevant Central Lane Scenario Plan (CLSP) Strategy Area(s)
AT 1: Active transportation network increase Total miles of active transportation network completed.	Active Transportation Transit
AT 1E: Active transportation network increase in underserved population neighborhoods (UPN) (equity) Total miles of active transportation network completed in UPNs.	Active Transportation Transit
AT 2: Shared micromobility trips taken Number of shared micromobility trips taken annually.	Active Transportation Transit
AT 3: Access to jobs and services through active transportation and transit (regional) Number of jobs and services accessible by transit, walking, or biking within a reasonable travel time.	Active Transportation Transit
AT 4: Mode share Share of daily trips through active transportation (bike + walk).	Active Transportation Transit Pricing Parking Management

Performance Measure	Relevant Central Lane Scenario Plan (CLSP) Strategy Area(s)
	Education and Marketing
TpSys 1: Household-based vehicle miles traveled (VMT) per capita (regional) Household-based light vehicle travel regardless of where the travel occurs.	Active Transportation Transit Pricing Parking Management Education and Marketing
TR 1: Level of transit service (regional) Total annual fixed-route bus revenue miles per capita.	Transit
TR 2: Access to frequent transit Percent of households within 1/4 mile of frequent transit network.	Transit
TR 2E: Access to frequent transit in Underserved Population Neighborhoods (equity) Percent of households in UPNs who are within 1/4 mile of frequent transit network.	Transit
TR 3: Transit stops intersecting with safe and convenient pedestrian facilities Percent of transit stops that have a safe and convenient connection to pedestrian facilities.	Active Transportation Transit
TR 3E: Transit stops intersecting with safe and convenient pedestrian facilities in underserved population neighborhoods (equity) Percent of transit stops in UPNs that have a safe and convenient connection to pedestrian facilities.	Active Transportation Transit
P 1: Share of area dedicated to surface parking in climate-friendly areas (CFAs) Percent of area in CFAs dedicated to surface parking.	Parking Management
TO 1: Transportation options program participation (regional) Number of employees who participate in an employer-provided transportation options program.	Education and Marketing

1.3 Performance Targets

Table 2 describes the performance measures, baselines, and 2045 targets for each measure for each jurisdiction required to report. The City of Coburg is required to track performance measures and targets but is in the process of requesting an exemption from DLCD. Performance measures were developed in coordination with jurisdictions in a manner that progresses CLSP strategies and aligns with the region's future vision.

In many cases, planning models provide data points that help to develop baseline and target values for the performance measures. Target values were calculated using the VisionEval Scenario Planning tool and the LCOG Regional Travel Model. The models help the region understand how different actions move the region toward the outcomes described in the CLSP. The 2015 CLSP used the GreenSTEP model, which has since been replaced by Vision Eval. Appendix C describes updates that occurred as part of this replacement. The 2021 Regional Transportation Plan Regional Travel Model (2020 base year / 2045 horizon year) also provided key datapoints. Appendix C provides extensive methodology documentation on these processes.

Table 2. Jurisdictional Performance Measure Targets

Performance Measure	Eug	ene	Sprin	gfield	Reg	ional
	Baseline	2045 Target	Baseline	2045 Target	Baseline	2045 Target
AT 1: Active transportation network increase	1,166 miles of active transportation network (2024 baseline)	1,328 miles (97%) of active transportation network	440 miles of active transportation network (2024 baseline)	547 miles (96%) of active transportation network	N/A	N/A
AT 1E: Active transportation network increase in underserved population neighborhoods (UPNs) (equity)	210 miles of active transportation network in UPNs (2024 baseline)	247 miles of active transportation network in UPNs	112 miles of active transportation network in UPNs (2024 baseline)	132 miles of active transportation network in UPNs	N/A	N/A
AT 2: Shared micromobility trips taken	200,551 trips (2024 baseline)	405,882 trips	676 trips (2024 baseline)	1,306 trips	N/A	N/A
AT 3: Access to jobs and services through active transportation and transit (regional)	N/A	N/A	N/A	N/A	Access to jobs: Biking: 25% Walking: 1.5% Transit: 82% Access to services: Biking: 22% Walking: 2.0% Transit: 81% (2020 baseline)	Access to jobs: Biking: 35.7% Walking: 2.1% Transit: 93% Access to services: Biking: 40.3% Walking: 3.7% Transit: 93% (2020 baseline)
AT 4: Mode share	15.7% active (bike + walk) mode share (2020 baseline)	26.8% active (bike + walk) mode share	10.7% active (bike + walk) mode share (2020 baseline)	16.5% active (bike + walk) mode share	N/A	N/A
TpSys 1: Household- based vehicle miles traveled (VMT) per capita (regional)	N/A	N/A	N/A	N/A	10.2 VMT per capita (2020 baseline)	9.27 VMT per capita (2020 baseline)
TR 1: Level of transit service (regional)	N/A	N/A	N/A	N/A	9.16 revenue miles per capita (bus and BRT) (2023 baseline)	20.87 revenue mile per capita (bus and BRT) (2023 baseline)

Performance Measure	Euge	ene	Springfield		Reg	ional
	Baseline	2045 Target	Baseline	2045 Target	Baseline	2045 Target
TR 2: Access to frequent transit	31.3% of households within 1/4 mile of frequent transit network (FTN) corridors (2020 baseline)	40.2% of households within 1/4 mile of FTN corridors	55% of households within 1/4 mile of FTN corridors (2020 baseline)	55% of households within 1/4 mile of FTN corridors	N/A	N/A
TR 2E: Access to frequent transit in underserved population neighborhoods (equity)	41.9% of households within UPNs are within 1/4 mile of FTN corridors (2020 baseline)	49.6% of households within UPNs are within 1/4 mile of FTN corridors	70.5% of households within UPNs are within 1/4 mile of FTN corridors (2020 baseline)	71.7% of households within UPNs are within 1/4 mile of FTN corridors	N/A	N/A
TR 3: Transit stops intersecting with safe and convenient pedestrian facilities	42% of transit stops intersect with safe and convenient pedestrian facilities (2024 baseline)	88.9% of transit stops intersect with safe and convenient pedestrian facilities	45.1% of transit stops intersect with safe and convenient pedestrian facilities (2024 baseline)	89.4% of transit stops intersect with safe and convenient pedestrian facilities	N/A	N/A
TR 3E: Transit stops intersecting with safe and convenient pedestrian facilities in underserved population neighborhoods (equity)	47.1% of transit stops in UPNs intersect with safe and convenient pedestrian facilities (2024 baseline)	89.8% of transit stops in UPNs intersect with safe and convenient pedestrian facilities	54.5% of transit stops in UPNs intersect with safe and convenient pedestrian facilities (2024 baseline)	91.3% of transit stops in UPNs intersect with safe and convenient pedestrian facilities	N/A	N/A
P1: Share of area dedicated to surface parking in climate- friendly areas (CFAs)	21.4% of area in CFAs dedicated to surface parking (2024 baseline)	19.7% of area in CFAs dedicated to surface parking	N/A	N/A	N/A	N/A
TO 1: Transportation options program participation (regional)	N/A	N/A	N/A	N/A	9,782 employees (2024 baseline)	105,507 employees

2. Implementing the Preferred Scenario

This section describes progress jurisdictions have made toward the preferred scenario since 2015 and serves as context for the current state of CLSP implementation. In the absence of a formal implementation plan, jurisdictions have made many efforts toward implementing the preferred scenario strategies over the past 10 years. This assessment of progress provides context for the "future areas of focus" discussed below that augment the original 2015 CLSP strategies with additional related tactics. Appendix A provides more details on jurisdictions' current progress on these strategies. Jurisdictions may want to focus on these areas during transportation as well as land use plan development and updates as they occur.

2.1 Active Transportation

2.1.1 Active Transportation #1: Build bicycling and walking projects in local 20-year plans

Progress: Medium to High

Coburg, Eugene, Springfield, and Lane County have all made significant progress toward completing bicycling and walking projects. Coburg implemented three segments of the Coburg Loop Path, while Eugene made nearly 30 separate improvements to their network including the High Street protected bikeway. Springfield completed 13 active transportation projects in the time since 2018, and Lane County constructed sidewalks at multiple locations including North Park Avenue and Maxwell Road. These improvements facilitate walking, biking, and rolling to more destinations.

Future areas of focus:

- Continue progress on investing in planned bicycling and walking projects.
- Further allocate scarce transportation resources to fund these projects.
- Incorporate a higher share of bicycling and walking projects in UPNs.
- Build on existing public support for active transportation projects.

2.1.2 Active Transportation #2: Dedicate a larger share of local transportation dollars to constructing and maintaining biking and walking projects

Progress: Medium to High

Three transportation bonds from Eugene along with a fuel tax increase and transportation utility fee from Coburg have dedicated more money to local active transportation projects. Eugene's bonds set aside 1.2% (2012), 9.8% (2017), and 24.5% (2022) of total funds for active transportation and safety improvement projects. While Springfield's fuel tax to repair city streets failed to pass in 2016, these strategies show a creative and determined focus to test and implement various funding structures.

Future areas of focus:

- Continue seeking win-win opportunities such as developing active transportation facilities when roads are repayed or reconstructed as part of utility projects.
- Consider how to simultaneously implement multidisciplinary projects planned for the same location to increase cost and time efficiencies.

2.1.3 Active Transportation #3: Implement a bike share program.

Progress: Low to High

Eugene implemented a bike share program in 2018, which expanded to Downtown Springfield and increased the number of bikes available in 2024. Eugene, Springfield, and LTD are collaborating to expand the bike share network in 2025 and beyond. Coburg's small size likely precludes it from creating its own bike share system.

Future areas of focus:

- Continue efforts to expand bikeshare and other types of shared micromobility (e.g., scooters, e-bikes) regionally.
- Increase the number and density of bikes in existing bike share areas in line with demand.

2.1.4 Active Transportation #4: Developer incentives to construct high-quality bike and pedestrian infrastructure.

Progress: Medium

Springfield and Eugene collect transportation system development charges (SDCs) that are eligible to be used on transportation system plan (TSP) projects. Eugene spends a significant share of its SDC funding on active transportation projects. Bike and pedestrian projects in the TSP can take advantage of this funding. Providing amenities supporting bicyclists and pedestrians is one way to provide the required public benefit to qualify for Springfield's new Housing Diversity Tax Exemption. Eugene reduces SDCs on a case-by-case basis if developers construct active transportation infrastructure. Coburg, Eugene, and Springfield require developers to provide bike parking in applicable developments. Springfield enacted the Housing Diversity Tax Exemption (HDTE) program to encourage low-income housing developers to provide high quality bike and pedestrian elements and access to transit.

Future areas of focus:

- Continue identifying effective incentives for developers to build high-quality active transportation infrastructure.
- Explore how existing municipal funds may bolster upcoming developer projects with creative partnerships.

2.1.5 Active Transportation #5: Expand Safe Routes to Schools programs.

Progress: Medium to High

Every jurisdiction participates in the regional Safe Routes to School (SRTS) program and there is a SRTS coordinator in each of the three school districts. Participation has resulted in the creation of a strategic plan, safety improvements near schools, and resources for parents and children seeking active modes of travel to school. Both Eugene and Springfield have been successful in applying for ODOT SRTS infrastructure grants. Statewide funding for infrastructure projects has expanded to \$15 million per year starting in 2023 from \$10 million, laying a foundation for even more substantial improvements.

Future areas of focus:

- Capitalize on expanded SRTS funding to develop SRTS plans and projects near schools.
- Coordinate with LCOG on SRTS priorities in the region.

2.1.6 Active Transportation #6: Encourage development of healthy, walkable neighborhoods.

Progress: Medium

Coburg, Eugene, and Springfield have all reformed parking regulations in compliance with CFEC rules. Eugene and Springfield are also in the process of designating CFAs that will become dense, urban mixed use centers served by high quality pedestrian, bicycle, and transit services. Funding for pedestrian projects and bike parking that comes from jurisdiction-implemented developer incentives can expand active transportation infrastructure, accessibility, and convenience in neighborhoods.

Future areas of focus:

- Continue progress through land use planning, accessibility, and multimodal investments.
- Support filling active transportation network gaps in CFAs.
- Consider expanding existing incentives for developers to invest in active transportation improvements proximal to new developments.

2.2 Transit

2.2.1 Transit #1: Support a stable source of funding for transit capital investments.

Progress: Low to Medium

The Statewide Transportation Improvement Fund (STIF) was established as part of House Bill 2017 and made new funds available for transit agencies to plan, deploy, operate, and administrate public transportation programs. This fund represents a substantial, ongoing statewide investment to support transit service operations and capital projects. LTD is using STIF to expand fixed route bus service and modernize the bikeshare system by 2026.

Future areas of focus:

- Support expansions of STIF funding or other opportunities for ongoing capital investments.
- Advance frequent transit corridors eligible for the Federal Transit Administration's Capital Investment Grant program.

2.2.2 Transit #2: Support Lane Transit District in identifying a stable source of funding for transit operations and maintenance.

Progress: Medium

The STIF fund, described above, provides ongoing statewide funding for public transportation operations in addition to the other sources of funding LTD relies on today such as fares and the local payroll tax on employers.

Future areas of focus:

- Support expansions of STIF funding or other opportunities to fund maintenance and operations.
- Support appropriate increases in LTD's payroll tax to support expanded service.

2.2.3 Transit #3: Support full implementation of the Frequent Transit Network (FTN) described in the LTD Long-Range Transit Plan.

Progress: Medium

TSP projects have improved frequent transit service or allocated money towards FTN projects. Eugene's 2035 TSP included the 9-mile West Eugene EmX extension, a current link in the FTN network that was completed in 2017. Springfield's TSP includes four FTN projects which were added to the Regional TSP. Continued focus on expansion of frequent transit will be necessary to realize a robust and connected system. Coburg does not currently have any FTN lines; its lower population size may preclude it from FTN lines in the near term.

Future areas of focus:

- As LTD updates its long-range plans, identify and support new frequent transit corridors in alignment with land use and population growth.
- Ensure equitable distribution of frequent transit lines based on the location of UPNs.
- Local jurisdictions should continue to support and coordinate with LTD in its efforts to develop and expand the FTN.

2.2.4 Transit #4: Encourage new development along FTN corridors.

Progress: Medium

FTN corridors in Eugene and Springfield often have high levels of residential and commercial development. Both cities are encouraging development in these areas through planning. Eugene incentivizes new development along FTN and key corridors by offering SDC credits in areas within 1/2 mile of the FTN. Springfield's HDTE Program is eligible to low-income housing developers within 1/2 mile of the FTN.

Future areas of focus:

- Designated CFAs and other mixed-use centers present an opportunity to align future development with FTN corridors.
- Local jurisdictions should coordinate with LTD on FTN expansion during comprehensive land use planning updates.

2.2.5 Transit #5: Improve transit access by focusing bicycling, walking, and safety improvements near transit stops and enhancing options for linking biking and transit trips.

Progress: Medium

Coburg sited the Coburg Loop Path next to a transit stop, while bike share stations are located at Springfield and Downtown Eugene transit stations. Amenities such as bike racks and bike lockers are common at transit stations. Springfield also conducted a bike parking study to identify bike parking needs along major transit routes. The West Eugene EmX project added enhanced bus stations that provided level boarding and other features that increased ease of access for people with disabilities. Eugene has a federal Safe Streets and Roads for All (SS4A) grant that is funding a first and last mile transit study that will look at how to improve walking and biking safety to bus stops.

Future areas of focus:

- Local jurisdictions should consider the transit network and stops when updating and prioritizing walking and cycling projects to support a connected network.
- Coordinate with LTD as it makes changes to the transit system to ensure safe walking and cycling access to transit.
- Implement the recommendations of the first and last mile transit study.

2.2.6 Transit #6: Support increased service frequencies and support expanded service hours.

Progress: Medium

LTD has consistently supported expanded service hours and frequencies despite a 23% decrease in vehicle revenue hours from 2015 to 2023 (as reported to the National Transit Database). In the years following the CLSP, revenue hours had risen by approximately 11% from 2015 to 2019. The COVID-19 pandemic affected nationwide transit service, causing a 41% drop in LTD's vehicle revenue hours by 2021. Since then, revenue hours have increased by approximately 17% between 2021 and 2023. While current vehicle revenue hours are still lower than when the CLSP was implemented in 2015, LTD is continually refining and improving its service to better serve riders, similar to many transit agencies working to recover prepandemic ridership.

LTD also increased transit service by 8% in September 2024 to address needs cited by riders. LTD's business plan for 2024 to 2026 seeks to increase revenue service levels by 10% from FY 2023.

Future areas of focus:

 Continue to support funding for LTD to expand service hours and frequencies across the region.

2.2.7 Transit #7: Improve rider experience.

Progress: Medium

Efforts by Springfield to incentivize construction of curb ramps that comply with the Americans with Disabilities Act (ADA) near FTN corridors have improved access for people using mobility devices to reach transit stops. The West Eugene EmX project added enhanced bus stations that provided level boarding and other features that increased ease of access for people with disabilities. LTD's

electronic fare payment systems and fare subsidy programs for students, people with low income or disabilities, and seniors have also improved the rider experience.

Future areas of focus:

- Continue to emphasize improvements on local jurisdiction roadways that make access to transit safer and more comfortable.
- Continue supporting programs, policies, and actions that address personal safety, security, and comfort at stops and on transit vehicles.

2.3 Pricing

2.3.1 Pricing #1: Support state efforts to implement a vehicle miles traveled fee.

Progress: None

ODOT implemented VMT pricing in Oregon in 2015, seeding the OReGO program with volunteer drivers who pay a per-mile charge for miles driven. The program covers both internal combustion engine (ICE) vehicles and electric vehicles (EVs), with drivers of ICE vehicles receiving a credit for fuel prices paid and drivers of EVs/40+ miles per gallon (mpg) vehicles receiving reduced registration fees. Policymakers at the state level continue to move toward replacement of the gas tax with VMT fees. No local action has been taken. The Central Lane region does not have direct control over implementation of this program.

Future areas of focus:

 Support statewide efforts to fund the transportation system, whether through a VMT fee or other approaches.

2.3.2 Pricing #2: Support Lane County's efforts to raise funds for transportation operations and maintenance.

Progress: Low to Medium

Eugene's 2012 bond and Springfield's 2018 bond raised funding for repairs and maintenance conducted on city roadways. Lane County has transferred the jurisdiction of some roadways to cities, reducing its maintenance portfolio and allowing city-raised funds to be used on these newly transferred roadways.

Future areas of focus:

• Support Lane County's efforts to secure a stable source of local funding for county roads. The rate should be indexed to inflation and keep up with rising infrastructure costs.⁹

⁹ All cities' current nominal gas tax rates are assumed to be indexed to inflation through 2045 in the preferred scenario, retaining purchasing power with future inflation.

2.3.3 Pricing #3: Support the private sector in fuller roll out of pay-as-you-drive insurance.

Progress: None

Many insurers have continued increasing their pay-as-you-drive offerings. The region's ability to influence this strategy is limited. No action has been taken.

Future areas of focus:

 Seek opportunities to partner with state agencies to support pay-as-you-drive offerings with state efforts to implement a VMT fee.¹⁰

2.3.4 Pricing #4: Support increases in the state and local fuel tax.

Progress: Low to Medium

Eugene and Coburg's successful fuel tax packages in 2003 (pre-CLSP) and 2019 have contributed to repair and maintenance of local roadways. Springfield's voters rejected a proposed gas tax increase in 2016. Eugene expressed support for HB 2017 in 2017, a transportation funding package that included raising the state gas tax.

Future areas of focus:

- Continue to support increases in local gas taxes to support local transportation funding until
 a more stable source of ongoing funding is implemented. Ensure that any VMT-based system
 still has the ability to collect local gas taxes or something similar. The rate should keep up
 with rising infrastructure costs.
- Continue supporting efforts to evolve the system of transportation funding sources that currently emphasize gas taxes, given transition of the private vehicle fleet to no- or lowgasoline vehicles.

2.4 Parking

2.4.1 Parking Management #1: Increase fees for long-term parking in some areas.

Progress: Medium

Parking rates are generally set to respond to market demand for parking. Eugene has implemented parking pricing for City-owned garages and downtown/University on-street parking, with residential and commuter parking permits available for eligible parties to purchase.

Future areas of focus:

 Continue to adjust parking fees and parking management strategies in line with demand for parking to achieve standard occupancy targets and parking management goals where appropriate.

 $^{^{10}}$ The 2045 preferred scenario uses the 100% participation in the pay-as-you-drive insurance program envisioned in the Statewide Transportation Strategy.

2.4.2 Parking Management #2: Allow developers greater flexibility in providing parking.

Progress: Medium to High

CFEC rules mandated parking reforms. Coburg, Springfield, and Eugene have allowed developers greater flexibility in providing off-street parking with their implementation of these regulations. Eugene and Springfield have both eliminated minimum off-street parking requirements citywide. Coburg exempted its Central Business District from minimum parking requirements in 2020.

Future areas of focus:

• Continue to emphasize active transportation and transit strategies that provide transportation options to reduce the need for a private vehicle for all trips.

2.5 Education and Marketing

2.5.1 Education and Marketing #1: Expand individual marketing programs such as SmartTrips.

Progress: Low to Medium

Springfield and Eugene have conducted campaigns and events to explain existing transportation options to residents. LTD has funded vanpool programs and bike lockers to facilitate active transportation at all points of the trip. LCOG has also instituted Bike Month to get people interested on a regional basis. Eugene has a program called New Movers that provides transportation options information and incentives to people who move to Eugene from at least 20 miles away.

Future areas of focus

- As communities expand, expand program offerings accordingly.
- Continue with innovative programs that fill gaps in education and marketing programs.
- Smaller communities can build off work carried out in conjunction with regional authorities.

2.5.2 Education and Marketing #2: Support eco driving practices.

Progress: None

This strategy is lower priority and may not be a central focus of the region's work to advance toward GHG reduction goals. No action has been taken.

Future areas of focus

No further area of focus is proposed.

2.5.3 Education and Marketing #3: Expand car sharing in the region.

Progress: Low

No direct action has been taken by jurisdictions to expand car sharing. GoForth and Zipcar provide carsharing options in Eugene, which provides expanded mobility options for people without a car or

for people without the appropriate type of vehicle. Car share services in Eugene are located in the Downtown and University areas. However, car share services have declined in number and usage in recent years.

Future areas of focus

- Work with private car share operators to bolster operations in the region and help locate car share parking areas.
- Consider incentives or requirements for electric or low-emission vehicles for these services.

2.5.4 Education and Marketing #4: Expand participation in workplace commuter education programs.

Progress: Low to Medium

LTD offers a robust selection of employer resources for reducing workplace commute trips, including transit group pass programs and Employer Transportation Coordinator training. Eugene obtained a grant from LCOG to conduct a transportation options campaign with University of Oregon employees.

Future areas of focus

Continue work on existing programs.

2.5.5 Education and Marketing #5: Expand transit pass programs.

Progress: Medium

LTD implements a transit group pass program. In addition to other initiatives from this program, LTD has provided free transit passes for students in kindergarten through 12th grade since 2019 and group transit passes for students and employees at the University of Oregon.

Future areas of focus

- Consider incentive programs such as encouraging private developers to provide transit passes to tenants.
- Support LTD in developing and marketing pass programs to employers.
- Continue efforts to increase and support youth transit ridership to develop lifelong transit habits.

2.5.6 Education and Marketing #6: Support implementation of the Oregon Transportation Options Plan.

Progress: Medium

The Central Lane region has several policies, programs, and projects that implement the State Transportation Options Plan on a localized basis such as SmartTrips, SRTS, and the PeaceHealth Rides bikeshare program.

Future areas of focus

Continue to support the state in expanding transportation options for residents.

Implementation Chapter: Appendix A

Policy Updates for 2015 CLSP Preferred Scenario

DATE: March 2024; Updated May 2025

TO: LCOG, ODOT, Lane County, and Cities of Eugene, Springfield and Coburg

FROM: Parametrix

SUBJECT: Policy Updates for Preferred Scenario

PROJECT NUMBER: 274-2395-126

PROJECT NAME: Central Lane Climate Friendly and Equitable Communities Scenario Planning

Appendix A: Policy Updates for 2015 CLSP Preferred Scenario

Task Summary

The 2009 Jobs and Transportation Act required the Central Lane region to conduct scenario planning and consider how alternative transportation and land use measures might reduce greenhouse gas (GHG) emissions from vehicles. The 2015 Central Lane Scenario Planning (CLSP) process identified a Preferred Scenario that includes strategies for making progress towards the State's 2050 GHG emissions reduction target and the region's goals. The Preferred Scenario includes strategies in seven policy areas—active transportation (bicycling and walking), transit, fleet and fuel changes, pricing, parking management, education and marketing, and roads—to ensure the Central Lane region meets required goals.

The Central Lane region is currently engaged in an effort to develop an Implementation Chapter for the 2015 Central Lane Scenario Plan. A key component of this effort is to document progress toward the Preferred Scenario to reflect current policies, plans, and actions. This work will include community and stakeholder engagement, development of performance measures and targets, and review of strategies that can help implement the Preferred Scenario and produce equitable outcomes for underserved populations. The project team conducted a desk review of available plans and policy information for the information in this memorandum, which yields:

- (1) An update on how the region's policies, plans and actions are advancing the Central Lane region toward the strategies and outcomes described in the 2015 CLSP Preferred Scenario.
- (2) Information that will be used by the project team to develop an updated 2050 Reference Scenario.⁶
- (3) A basis for regional discussion on updating the 2015 Preferred Scenario strategies as appropriate.

Approach to Identifying Updates

The project team performed desk review of current plans and policies to determine how they help implement the preferred scenario. The team documented newly adopted plans and related

⁶ The reference scenario represents the expected outcomes in 2050 if current plans and policies are continued into the future. It provides a basis for comparing how the region is progressing towards the Preferred Scenario and in turn, what gaps (if any) may need to be addressed to meet the preferred scenario.

jurisdiction-implemented actions from the desk review, along with State-led actions required to meet collective statewide GHG emissions reduction goals.

The project team reviewed the following plans and policies:

- 2045 Central Lane Regional Transportation Plan (2022)
- City of Eugene
 - → Eugene 2035 Transportation System Plan (2017)
 - → Envision Eugene Comprehensive Plan (2023)
 - → Pavement Management Report (2015)
 - → Climate Action Plan 2.0 (2020)
 - → Land Use Code
- City of Springfield
 - → 2035 Transportation System Plan (2020)
 - → Springfield Comprehensive Plan (2022)
 - → Springfield Development Code
- City of Coburg
 - → Coburg Comprehensive Plan (2018)
 - → Coburg Loop Implementation Plan (2009)
 - → Land Use Code
- Lane County
 - → Transportation System Plan (2017)
 - → Bicycle Master Plan (2022)
 - → Capital Improvement Plan (FY 2022 2026)
 - → Transportation Safety Action Plan (2017)
 - → ADA Transition Plan 2022 Annual Report (2022)
 - → 30th Avenue Active Transportation Plan (2022)
- Lane Transit District
 - → Annual Comprehensive Financial Report (FY 2021–2022)
 - → 2023-2032 Community Investment Plan
 - → Regional Bike Parking Study (2013)
- Lane Council of Governments
 - → 2045 Regional Transportation Plan
- Other
 - → Eugene-Springfield Safe Routes to School Strategic Plan (2022)
 - → Regionally significant projects deemed likely to be funded within the planning horizon

Following the desk review, the project team will present results to each local jurisdiction to seek information to fill in gaps and identify additional actions that did not surface during the initial review. The project team will work with local jurisdictions to collect additional information and perform additional research as needed to support the updates. As jurisdictions identify additional actions, the project team will integrate them into **Table A-3**.

Documentation of Updates

The project team compared current policies with strategies identified in the 2015 Preferred Scenario and evaluated level of progress toward meeting the 2015 Preferred Scenario (**Table A-3** notes). **Table A-3** notes at a qualitative, high level whether jurisdictions have made **low progress**, **medium progress**, or **high progress** in addressing the strategies of the Preferred Scenario, with the following caveats:

- Table A-3 is intended to start a regional conversation about progress made to-date towards the Preferred Scenario and what policies or strategies have been effective. It is not intended to compile every policy or project advanced by jurisdictions since the completion of the CLSP Preferred Scenario.
- Not all the CLSP Preferred Scenario strategies are applicable to each of the jurisdictions; these cases are labeled *Not applicable*.
- There are a few strategies over which regional and local governments have little influence.
 These cases are noted as such.

Table A-3. Documentation of Updates

CLSP Preferred Scenario Strategy	Coburg	Eugene	Springfield	Lane County	Lane Transit District	Lane Council of Governments
Active Transportation #1: Build bicycling and walking projects in local 20-year plans.	Medium progress in building bicycling and walking projects from its transportation system plan (TSP). Examples include: Coburg Loop Path: Three segments have been completed from 2013 to 2018, with the fourth segment in the design phase and scheduled to be constructed in the summer of 2024.	High progress in building bicycling and walking projects from its TSP (2017). Nearly 30 separate improvements have been made on various roads and at various intersections to increase safety for people walking, rolling, and biking. Improvements include protected bike lanes, greenway expansions, widened sidewalks, new crosswalks, repaving, increased lighting, and traffic calming. Examples include: Northeast Eugene Livable Streets Crossings: Upgraded 8 major crossings on arterials in NE Eugene to increase connectivity in 2020. 13th Avenue Protected Bikeway: Constructed two-way protected bike lane (nearly 1 mile in length) along 13th Ave. near University of Oregon in 2020. Amazon Active Transportation Corridor: Completed segment of "Ridgeline to River" path and numerous bike/ped connectivity and safety improvements, including signals, crossings, and buffers in 2020. Alder Street Neighborhood Greenway: Constructed several elements to make six blocks of Alder St. a neighborhood greenway in 2019. Eugene Enhanced Walking Network: Constructed enhanced crossings at three locations and sidewalks for three streets in various locations in Eugene in 2023. Willamette Two-Way Street Conversion: Converted two blocks of Willamette St. and nearby blocks on 20th Ave. and Oak St. from one-way to two-way and added bike lanes to enhance connectivity in 2021. 8th Avenue Streetscape: Converted to two-way street and added protected bike lanes on a half-mile stretch of 8th Ave in Downtown Eugene in 2024. High Street Protected Bikeway: Constructed two-way protected bikeway on one mile stretch of High St., completed in 2023.	High progress in building bicycling and walking projects included in its TSP (2014, updated 2020). 13 projects have been constructed since 2018. Examples include: Mill Race Path: Partnered with Willamalane to construct multiuse path in conjunction with stormwater facility project. 13 enhanced crossings: Crossings throughout Springfield were raised or bolstered with rectangular rapid flashing beacons (RRFBs). Many were located near schools. Locations with RRFBs include Jasper Road at Dondea and Filbert Lane, 21st Street at H Street, Thurston Middle and High Schools, 58th Street and A Street, Springfield High, and Agnes Stewart Middle School. Locations with raised crossings include Two Rivers-Dos Rios Elementary and Ridgeview Elementary. Virginia Avenue/ Daisy Street from S 42nd Street to S 51st Place: Modernized Virginia Ave. and Daisy St. by constructing raised crossings, installing Americans with Disabilities Act (ADA)-compliant curb ramps, and performing sidewalk repairs. Mill Street Reconstruction: Full depth reconstruction: Full depth reconstruction of Mill Street will occur in 2024. Improvements will include ADA curb ramp upgrades and new sidewalks, bike lanes, and lighting. West D Street Improvements: Improvements to be constructed in summer 2024 include speed cushions, a raised crosswalk, a bicycle transition between West D Street and the Northbank path, and bicycle stripping. By-Gully Path Extension: Forthcoming extension of path at Hamlin Middle School.	Medium progress in constructing bicycling and walking projects from its TSP (2017), the Bicycle Master Plan (2022), and the CIP. The TSP contains 71 financially constrained projects, approximately 75% of which include bicycling or walking improvements. Examples include: North Park Avenue: Constructed missing sidewalks on east side of North Park from Maxwell to Howard. Improved crosswalk at North Park / Maxwell. Territorial Highway: Added shoulders for cyclist travel as part of Stony Point Realignment Project between Gillespie Corners and Lorane. Gilham Road: Constructed sidewalks along west side of Gilham Road. Hunsaker Lane: Lane County acted as the initial applicant for design funds for bicycle and pedestrian improvements. Once funding was acquired, the County transferred funds to Eugene to implement the improvements. 30th Avenue: Created design concept to make driving, walking, biking, and taking transit safer. Selected future improvements include installing enhanced crossings and constructing multiple shared use path connections.	Medium progress in supporting bicycling and walking projects. Examples include: Long Range Transit Plan Policy 1.4 supports improvement of infrastructure and services that increase pedestrian, bicycle, ridesharing, and transit usage.	Low progress in building bicycling and walking projects from local 20-year plans.

CLSP Preferred Scenario Strategy	Coburg	Eugene	Springfield	Lane County	Lane Transit District	Lane Council of Governments
		South Willamette Street Improvement Plan: Constructed several streetscape improvements to increase pedestrian safety and add bike lanes on eight blocks of S Willamette St., completed in 2022. Hunsaker Lane: Constructed protected intersection, dedicated bike lanes, and upgraded sidewalks and sidewalk access ramps.				
Active Transportation #2: Dedicate a larger share of local transportation dollars to constructing and maintaining biking and walking projects.	Medium progress in dedicating funds to bike/ped projects. Examples include: Authorizing additional local Street Fund money to meet the new local match requirement to complete the engineering and environmental reviews and construction for the fourth segment of the Coburg Loop Path in 2024. Increased the fuel tax via a ballot measure in 2019 to \$0.06 per gallon to raise money for repairing local streets. Established a transportation utility fee in 2021 to raise money for managing, planning, designing, constructing, preserving, and maintaining the City's street pavement system. Constructed bike hub in Pavilion Park with fix-it station, lockers, bike rack, picnic table, informational signage, and solar charging stations.	High progress in dedicating funds to bike/ped projects. Eugene has passed several bonds since 2012 to raise funds for transportation improvements with increasing shares set aside for walking and biking projects. Examples include: A \$43 million bond in 2012 paid for pavement rehabilitation with \$516,000 set aside annually for bicycle and pedestrian projects. A \$51.2 million bond in 2017 provided \$5 million for safety improvements for people walking and biking. A \$61.2 million bond in 2022 set aside \$15 million to construct walking, biking, and safety improvement projects between 2025-2029. Eugene prioritizes MPO funds towards active transportation projects and has received funding from grants like Safe Routes to School and Oregon Community Paths. SDCs and the road fund also fund active transportation projects. Eugene collaborated on constructing five miles of new or rebuilt sidewalks, 187 ADA corners, and two pedestrian crosswalks as part of the west Eugene EmX expansion.	Medium progress in dedicating funds to bike/ped projects. Examples include: Guy Lee Elementary Sidewalks: Forthcoming construction of sidewalk on Darlene Avenue to benefit Guy Lee Elementary. Douglas Gardens Elementary School Sidewalks: Forthcoming construction of sidewalk on S 37th St. to benefit Douglas Gardens Elementary. Enhanced EWEB Path crossings: Forthcoming installation of enhanced crossings at 19th St. and 5th St. RRFBs: Forthcoming installation of RRFBs at 69th / Thurston and 5th St. north of Q St.	Medium progress in dedicating funds to bike/ped projects. Examples include: TSAP Goal 6 directs Lane County to invest in safety projects that provide, among other initiatives, pedestrian and bicycle facilities. Pavement preservation: Adding mill and fill in travel lanes and bike lanes on Coburg Rd., N Game Farm Rd., and River Rd. Territorial Highway: Transferred jurisdiction of highway from ODOT to Lane County in 2019 to improve safety and multimodal facilities. Transferring roads: Lane County desires to facilitate jurisdictional transfer of County roads within UGBs to the respective cities to focus limited funds on rural roads.	Medium progress in dedicating funds to bike/ped projects. Examples include: Constructing five miles of new or rebuilt sidewalks, 187 ADA corners, two pedestrian crosswalks, and two bicycle-pedestrian bridges as part of the west Eugene EmX expansion.	Low progress in dedicating funds to bike/ped projects.

CLSP Preferred Scenario Strategy	Coburg	Eugene	Springfield	Lane County	Lane Transit District	Lane Council of Governments
Active Transportation #3: Implement a bike share program.	Low progress on implementing a bike share program. As a small community, implementing a bike share program is a substantial effort for Coburg to implement by itself. A future bike share program in Coburg would likely build off a program developed regionally or established in Eugene and Springfield.	High progress on implementing a bike share program. Eugene implemented a bike share system in 2018 in partnership with Cascadia Mobility, the University of Oregon, and LTD, and sponsored by PeaceHealth Oregon. In 2024, the PeaceHealth Rides bikeshare system expanded from 350 bikes and 45 stations to 450 bikes and 90 stations, with an expanded service area including Downtown Springfield. New partnerships and funding will allow for continued expansion of the system.	Medium progress on implementing a bike share program. Examples include: Satellite station: PeaceHealth Oregon, the sponsor of the bike share system, has a satellite station at PeaceHealth RiverBend in Springfield. A proposal will be made in 2024 to expand PeaceHealth Rides to downtown Springfield. Bike Share expanded to Springfield on April 19, 2024, including 25 bikes in the downtown area.	Low progress on implementing a bike share program.	Medium progress on implementing a bike share program. Examples include: LTD partnered with Eugene on a bike share study. LTD partnering on the PeaceHealth Rides bike share system.	Medium progress on implementing a bike share program. Examples include: Supporting PeaceHealth Rides bikeshare system with STBG and Regional Transportation Options funds.
Active Transportation #4: Developer incentives to construct high-quality bike and pedestrian infrastructure.	Medium progress on providing developer incentives to construct bike and pedestrian infrastructure. Examples include: Reduced off-street parking requirements: Developers who provide more than the minimum number of required bicycle parking spaces may obtain up to 10% reduction to standard number of automobile parking spaces. Requirement to provide bicycle parking in developments that require a site plan or amended site plan for new development, changes of use, and buildings expansions and remodels that require a building permit	Medium progress on providing developer incentives to construct bike and pedestrian infrastructure. Examples include: Transportation SDCs: Transportation SDCs are collected from developers and used to build high-quality bike and pedestrian infrastructure.	Medium progress on providing developer incentives to construct bike and pedestrian infrastructure. Springfield has implemented several incentives. Examples include: HDTE Program for low-income housing developers with ½ mile of FTN.	Not applicable. Lane County does not have jurisdiction over land use applications.	Medium progress on supporting developer incentives to construct bike and pedestrian infrastructure. Examples include: Long Range Transit Plan Policy 1.5 supports full integration of transit investments with development plans throughout Eugene, Springfield, and Coburg	Low progress on providing developer incentives to construct bike and pedestrian infrastructure.
Active Transportation #5: Expand Safe Routes to Schools programs.	Medium progress on implementing SRTS programs. Examples include: Participates in SRTS program with LCOG.	High progress on implementing SRTS programs. Examples include: Safety improvements near six schools using a 2018 SRTS infrastructure grant. Four projects in 2020-2024 to improve safety at crossings and along corridors in proximity to five schools. Partnered on the Eugene-Springfield SRTS Strategic Plan, released in 2022. Conducted bike and traffic safety education efforts including Learn to Ride bike education events. Participates in SRTS program with LCOG.	Medium progress on implementing SRTS programs. Examples include: SRTS plan: Partnered on the Eugene-Springfield SRTS Strategic Plan in 2022. Participates in SRTS program with LCOG.	Medium progress on implementing SRTS programs. Examples include: Safe Routes Lane County: Implemented a SRTS program focused on rural areas. The program is a collaboration between LCOG, Lane County, Lane Education Service District, and ODOT. SRTS plan: Partnered on the Eugene-Springfield SRTS Strategic Plan in 2022. Participates in SRTS program with LCOG.	Medium progress on implementing SRTS programs. Examples include: Creating school walking route maps, currently under development. Partnered on the Eugene-Springfield SRTS Strategic Plan in 2022. Participates in SRTS program with LCOG.	Medium progress on implementing SRTS programs. Examples include: Funding a program to expand bike safety education. SRTS team partnering with Safe Lane Coalition to form work groups on speed reduction, DUII prevention, and safety education and outreach. LCOG funds SRTS program managers for each school district in addition to an assistant who splits time between school districts.

CLSP Preferred Scenario Strategy	Coburg	Eugene	Springfield	Lane County	Lane Transit District	Lane Council of Governments
Active Transportation #6: Encourage development of healthy, walkable neighborhoods.	Medium progress in encouraging healthy, walkable neighborhoods. Examples include: Constructed sidewalks as part of the Mill Street Project.	Medium progress in encouraging healthy, walkable neighborhoods. Examples include: Adopted middle housing code amendments in 2024. Authorized a Multi-Unit Property Tax Exemption in downtown Eugene to incentivize construction of multi-unit housing. Waived 100% of calculated transportation SDC fees for new ADUs. Designating Climate-Friendly Areas where people can meet their daily needs without relying on a car through comprehensive plan and land use code changes.	Medium progress in encouraging healthy, walkable neighborhoods. Examples include: Bike Parking Enhancement Project: Springfield received an \$86,500 grant to install public bike racks in locations with insufficient bike parking. Waiving SDCs: Springfield is waiving transportation, stormwater, and local wastewater system development charges for newly permitted accessory dwelling units and homes sold to qualified households at 80% AMI (area median income) affordability limits. Housing diversity tax exemption: In May 2024, City Council adopted a 10-year property tax exemption for newly created multiple-unit housing in transit-served and core areas of Springfield.	Medium progress in encouraging healthy, walkable neighborhoods. Examples include: Allowing ADUs: Passed ordinance in August 2023 allowing accessory dwelling units on Rural Residential zoned properties in rural Lane County. Supporting livable communities: the Transportation Safety Action Plan Goal 3 directs Lane County to create a transportation system that supports livable communities with walkable and bikeable streets. Installing ADA curb ramps: Lane County ADA Transition Plan recorded construction of ADA ramp upgrades at two Maxwell Road intersections. The County allocated \$250,000 annually towards ADA improvements.	Medium progress in encouraging healthy, walkable neighborhoods. Examples include: Long Range Transit Plan Performance Measure 5 emphasizes importance of service connections being within a reasonable walking distance to residences.	Medium progress in encouraging healthy, walkable neighborhoods. Examples include: Currently working on quality assessment for walking and biking facilities.
Transit #1: Support a stable source of funding for transit capital investments.				g has been identified. Local/regional fur deral funds to implement the capital pro		,
Transit #2: Support Lane Transit District in identifying a stable source of funding for transit operations and maintenance.		funding for transit operations to L	TD and transit providers across the s	passed <u>HB 2017 (2017)</u> that provides tate. LTD primarily receives operating tional transit and technology infrastruc	funds from a payroll tax	
Transit #3: Support full implementation of the Frequent Transit Network (FTN) described in the LTD <i>Long-Range Transit Plan</i> .	Not applicable – Coburg does not have any routes that are part of the LTD FTN.	Medium progress in supporting implementation of the FTN. Examples include: The <u>Eugene TSP</u> explicitly supports FTN and includes projects that improve frequent transit service. Extension of West Eugene EmX in 2017.	Medium progress in supporting implementation of the FTN. Examples include: TSP Projects: Included four FTN projects from the Regional Transportation System Plan in the Springfield TSP.	Medium progress in supporting implementation of the FTN. Examples include: TSP Goals: Goal 8 (Coordination) supports working with transit providers. County is in process of transferring River Road to Eugene within Eugene's UGB.	Medium progress in supporting full implementation of the FTN. Examples include: Allocating more than \$55 million toward FTN projects in the 2022 to 2033 budget.	Not applicable.

CLSP Preferred Scenario Strategy	Coburg	Eugene	Springfield	Lane County	Lane Transit District	Lane Council of Governments
Transit #4: Encourage new development along FTN corridors.	Not applicable – Coburg does not have any routes that are part of the LTD FTN.	Medium progress in encouraging new development along FTN corridors. Examples include: Reducing Transportation SDCs: Transportation SDCs are reduced if residential or mixed-use development is within a half-mile of an adopted LTD FTN. Promoting redevelopment in River Road community: Goal 2 from draft River Road Santa Clara Neighborhood Plan states "Promote redevelopment that enhances walkability and increases access to daily needs." Implemented transit-oriented development overlay zone in zoning code to encourage mixed uses near transit centers. Eliminated parking requirements within a half-mile walking distance of the FTN in January 2023	Medium progress in encouraging new development along FTN corridors. Examples include: FTN stop placement: The TSP states that FTN stops will be located closest to the highest density development within the corridor. Urban Renewal Districts: The Downtown and Glenwood Urban Renewal Districts are located along FTN corridors and are expected to have the most redevelopment through strategic infrastructure and other investments.	Not applicable - respective jurisdictions are in charge of land use decisions within UGBs.	Medium progress in encouraging new development along FTN corridors. Examples include: Long Range Transit Plan Strategy 1.1.B reviews zoning changes made in conjunction with surrounding cities' comprehensive plans such as Envision Eugene as they relate to the FTN.	Not applicable - respective jurisdictions are in charge of land use decisions within UGBs.
Transit #5: Improve transit access by focusing bicycling, walking, and safety improvements near transit stops and enhancing options for linking biking and transit trips.	Medium progress on focusing active transportation improvements near transit. Examples include: Constructing Coburg Loop Path next to Route 96 stop.	Medium progress on focusing active transportation improvements near transit. Examples include: Adding bus and turn lanes, pedestrian crossings, and enhancing bicycle crossings on Martin Luther King Jr. Boulevard, with in 2024. Studying safety challenges at bus stops to identify construction projects that will improve conditions for walking and biking to bus stops using a 2024 Safe Streets for All grant. Worked with LTD to site PeaceHealth Rides stations next to transit stops and stations. Installed three new pedestrian bridges to better connect neighborhoods and the shared use path system to West Eugene EmX.	Medium progress on focusing active transportation improvements near transit. Examples include: Bike parking study: Participated in a regional bike parking study to identify bike parking needs along major transit routes.	Medium progress on focusing active transportation improvements near transit. Examples include: 30th Avenue: Created design concept to make driving, walking, biking, and taking transit safer. Selected future improvements include installing enhanced crossings and constructing multiple shared use path connections.	Medium progress on focusing active transportation improvements near transit. Examples include: Providing bike racks on all LTD buses. Providing free bike parking at all LTD transit stations. Collaborating with Eugene to site PeaceHealth Rides stations next to bus stops	Low progress on focusing active transportation improvements near transit
Transit #6: Support increased service frequencies and support expanded service hours.		persistent decreases in ridership for Business Plan for FY 24-26 include baseline. Previously discussed fund	vice frequencies and service hours. The rall transit providers that are only slowes a goal to increase revenue service leing difficulties may hinder this effort. Effebruary 2023 include adding afternoon Station.	vly recovering. LTD's <u>Strategic</u> evels by 10% from a FY 23 excluding other service	1	Medium progress on expanding service frequencies and service hours. Examples include: Started Link Lane to provide access to communities within and beyond Lane County.

CLSP Preferred Scenario Strategy	Coburg	Eugene	Springfield	Lane County	Lane Transit District	Lane Council of Governments
Transit #7: Improve rider experience.	Medium progress on improving rider experience. As cities construct mandated ADA-compliant curb ramps, opportunities exist to algin improvements with transit-proximal locations to increase ease of transit access.	Medium progress on improving rider experience. As cities construct mandated ADA-compliant curb ramps, opportunities exist to algin improvements with transit-proximal locations to increase ease of transit access. Examples include: Added enhanced bus stations with real-time information, level boarding, and other rider improvements as part of West Eugene EmX project.	Medium progress on improving rider experience. As cities construct mandated ADA-compliant curb ramps, opportunities exist to algin improvements with transit-proximal locations to increase ease of transit access.	Medium progress on improving rider experience. As cities construct mandated ADA-compliant curb ramps, opportunities exist to algin improvements with transit-proximal locations to increase ease of transit access.	Medium progress on improving rider experience. Examples include: Funding an electronic fare payment system through UMO to enable customers to plan and pay for trip in one mobile wallet. Providing a fare subsidy program for middle and high school students, low-income individuals, seniors, and people with disabilities. Long Range Transit Plan Performance Measure 11 includes General Rider Satisfaction as a benchmark of progress towards the Plan's six goals. Factors include operators' helpfulness, customer service employees, and bus service frequency and reliability.	Medium progress on improving rider experience. Examples include: Link Lane permits the purchase of transit tickets in advance.
Pricing #1: Support state efforts to implement a vehicle miles traveled fee.		Low progress. Oregon has continued fee has not been implemented to do		t for replacing the state gas tax. Howeve	er, a statewide mileage	
Pricing #2: Support Lane County's efforts to raise funds for transportation operations and maintenance.	Low progress on raising funds for transportation operations and maintenance.	Medium progress on raising funds for transportation operations and maintenance. Examples include: Passed \$43 million bond in 2012 for pavement rehabilitation. Passed \$51.2 million bond in 2017 to complete 91 road repair projects on 78 streets. Passed \$61.2 million bond in 2022 to complete repairs on 42 street projects Funds from the 2003 local gas tax are dedicated to the reconstruction, repair, maintenance, operation, and preservation of city-owned roads. Lane County is in process of transferring County-owned roads to Eugene within Eugene's UGB, which will reduce operations and maintenance costs for the County.	Medium progress on raising funds for transportation operations and maintenance. Examples include: \$10 million bond: Passed in 2018, this bond fund repairs to city streets. Bond is funded through homeowner taxes at \$0.50 / \$1,000 of assessed value. \$20 million bond: Passed in 2024, this bond fund repairs to city streets. Bond is funded through homeowner taxes at \$0.74 / \$1,000 of assessed value.	Medium progress on raising funds for transportation operations and maintenance. Examples include: Expanding road maintenance: Following a road maintenance audit in 2017, Lane County added a full-time employee to the role of road maintenance planner and further developed long term maintenance planning for roads, bridges, and stormwater assets. Attempted vehicle registration fee increase: Lane County's attempted to raise the fee in 2015 to fund road and bridge maintenance was rejected by voters.	Not applicable	Low progress on raising funds for transportation operations and maintenance.
Pricing #3: Support the private sector in fuller roll-out of pay-as-you-drive insurance.		Low progress. Many insurers have colimited. Consider reevaluating this s		ive offerings. The region's ability to influ	uence this strategy is	

CLSP Preferred Scenario Strategy	Coburg	Eugene	Springfield	Lane County	Lane Transit District	Lane Council of Governments
Pricing #4: Support increases in the state and local fuel tax.	Medium progress in increasing local fuel taxes. Examples include: Increased the fuel tax to \$0.06 per gallon in December 2019 to raise money for repairing local streets.	Low progress in increasing local fuel taxes. Eugene has an established local gas tax since 2003 and supported HB 2017, which increased the state gas tax.	Low progress in increasing local fuel taxes. Springfield's last attempted a gas tax increase, \$0.03, in November 2016. The increase was rejected by voters.	Not applicable		
Parking Management #1: Increase fees for long-term parking in some areas.	Low progress in increasing fees for long-term parking. Coburg provides free public parking.	Medium progress in increasing fees for long-term parking. Eugene has raised parking rates several times since 2015.	Low progress on increasing fees for long-term parking in some areas.	Low progress on increasing fees for long-term parking in some areas.	Low progress on increasing fees for long-term parking in some areas. Parking at LTD park and ride stations is strongly linked to transit ridership. Incorporating fees for parking may have detrimental effect on transit ridership.	Not applicable
Parking Management #2: Allow developers greater flexibility in providing parking.	Medium progress in allowing developers greater flexibility in providing parking. Examples include: Exempted the Central Business District in 2020 from minimum parking requirements with the exception of employees and work vehicles stored on-site. Allowing waived or reduced off-street parking requirements when site has dedicated spaces for carpool vehicles, vanpool vehicles, motorcycles, scooters, or electric carts, or when a bus stop is located within 800 feet of the site.	High progress in allowing developers greater flexibility in providing parking. Examples include: Eliminated off-street parking requirements citywide in December 2023 to align with CFEC rules.	High progress in allowing developers greater flexibility in providing parking. Examples include: Eliminated off-street parking requirements citywide in 2023 to align with CFEC rules.	Not applicable		

CLSP Preferred Scenario Strategy	Coburg	Eugene	Springfield	Lane County	Lane Transit District	Lane Council of Governments
Education and Marketing #1: Expand individual marketing programs such as SmartTrips.	Low progress on developing or adopting individual marketing programs. As a small community, initiating and sustaining an individual marketing program is a substantial effort for Coburg to implement by itself. A future marketing program in Coburg might build off work carried out in conjunction with regional authorities.	Medium progress in expanding individual marketing programs. Examples include: Distributing free active travel kits for South Central Eugene through SmartTrips. Conducting Breakfast at the Bike Bridges events. Hosting May is Bike Month annually since 2014. Distributing transportation options materials under Get There and New Movers programs.	Medium progress on expanding individual marketing programs. Examples include: SmartTrips in Gateway: The City advertised its SmartTrips program to Gateway area residents in 2023 with postcards. Residents were encouraged to try new modes of transportation or expand alternative modes already being used. Participants received free educational kits, swag, and prizes. Be Safe. Be Seen campaign: Local agencies distributed safety materials such as lights and visibility vests to residents to increase the safety of traveling in darkness. Bike Month: The City hosted Bike Month and promoted group bike rides, free bicycle safety checks, and free bike and pedestrian maps. The Transportation Options Coordinator conducts education programs at the library.	Low progress on expanding individual marketing programs. Lane County has had partnerships with LCOG to strategize on how people can use modes other than motor vehicles in rural transportation.	Medium progress on expanding individual marketing programs. Examples include: Using Point2point monies to fund employer transportation options programs, vanpool program subsidies, secure bike lockers at LTD facilities, and bike/ped safety information. Implementing and managing Get There in Lane County to help connect people interested in traveling or commuting together.	Medium progress on expanding individual marketing programs. Examples include: LCOG coordinates Bike Month, a regional effort to encourage Lane County residents to try biking.
Education and Marketing #2: Support eco driving practices.		Low progress on supporti	ing widespread adoption of eco driving	practices through education and marke	ting campaigns.	
Education and Marketing #3: Expand car sharing in the region.	Low progress. No car share programs implemented. Note: car-share may not be appropriate for Coburg given its size and location.	 Low progress on expanding car sharing in the region. Actions include: Added Zipcar service in 2015 near the University of Oregon campus. Enacted partnership with Forth Mobility and the Eugene Water & Electric Board (EWEB) to offer the GoForth Electric CarShare program. 	Low progress. No car share programs implemented.	Low progress. No car share programs implemented.	Low progress. No car share programs implemented.	Low progress. No car share programs implemented.
Education and Marketing #4: Expand participation in workplace commuter education programs.	Low progress on expanding participation in workplace commute reduction programs.	Medium progress on expanding participation in workplace commute reduction programs. Examples include: Providing work from home options for City employees. Obtained an LCOG grant to do a transportation options campaign with University of Oregon employees. Supported DEQ's Employee Commute Options program.	Low progress on expanding participation in workplace commute reduction programs.	Low progress on expanding participation in workplace commute reduction programs.	Medium progress on expanding participation in workplace commute reduction programs. Examples include: Offers robust employer resources for workplace commute-reduction, including Emergency Ride Home, a transit group pass program, vanpool, and Employer Transportation Coordinator training.	Low progress on expanding participation in workplace commute reduction programs. Regional focus has shifted from the workplace to communities with low income, engaging entities such as CBOs and food banks.

CLSP Preferred Scenario Strategy	Coburg	Eugene	Springfield	Lane County	Lane Transit District	Lane Council of Governments
Education and Marketing #5: Expand transit pass programs.	Low progress on expanding transit pass programs.	Medium progress on expanding transit pass programs Examples include: Continuing to provide free transit passes and free bikeshare memberships for City employees 1Pass: The 1Pass provides access to 16 destinations for kids 18 and under in Springfield and Eugene during summer months for a flat fee of \$60.	Medium progress on expanding transit pass programs Examples include: 1 Pass: The 1Pass provides access to 16 destinations for kids 18 and under in Springfield and Eugene during summer months for a flat fee of \$60.	Low progress on expanding transit pass programs. Lane County supports expanding transit pass programs.	Medium progress on expanding transit pass programs. Examples include: Implementing a group pass program that permits organizations to purchase discounted monthly bus passes for their employees. Providing free transit passes for all students in kindergarten through 12th grade since 2019.	Medium progress on expanding transit pass programs. Examples include: Launching a Youth Transportation Advisory Council to educate students on taking transit and support better transportation for people of all ages.
Education and Marketing #6: Support implementation of the Oregon Transportation Options Plan.				that implement the State TO Plan on a le chool, and the PeaceHealth Rides bikes.		

Central Lane Scenario Plan: Implementation Lane Council of Governments Oregon Department of Transportation

Implementation Chapter: Appendix B

Target Setting Calculations (Eugene and Springfield)

DATE: May 12, 2025

TO: LCOG, ODOT, City of Eugene

FROM: Parametrix

SUBJECT: Appendix B: City of Eugene Target Setting Calculations

PROJECT NAME: Climate Office Technical Analysis and Support

Appendix B: Eugene Target Setting Calculations

This appendix describes the methodology used to calculate and set targets for jurisdictions' performance measures as required by Oregon Administrative Rule (OAR) 660-012-0910 and described in the Scenario Plan Implementation Chapter. Future targets for each performance measure were set at levels to implement the preferred scenario by 2045, target values were calculated using the VisionEval Scenario Planning tool, the LCOG Region Travel Model, local Transportation System Plans, and other sources as appropriate. The performance targets are set from a baseline year which varies depending on data availability. Additional future year targets are provided to 2050 consistent with the region's metropolitan GHG reduction targets in OAR 660-044-0025 and the 2049 Regional Transportation Plan update horizon year.

The equity performance measures aim to incorporate and prioritize jurisdiction-wide greenhouse gas (GHG) reduction efforts as they relate to underserved populations, defined in OAR 660-012-0125 (2). The project team identified these communities' locations using the Oregon Department of Transportation (ODOT) Social Equity Index (SEI)⁷, which relies on U.S. Census American Community Survey (ACS) data to form scores for block groups ranging from "Low" disparity to "High" disparity. This memo refers to groups in the "High" disparity category as Underserved Population Neighborhoods (UPNs). UPNs should receive focused attention in engagement and decision-making to address historic and current inequities.

Active Transportation

AT.1. Active transportation network increase

Target Setting Methodology

The intent of this measure is to advance the 2015 strategy to "Build bicycling and walking projects in local 20-year plans." The target is to build 100% of the aspirational number of active transportation network miles in Eugene by 2050. The baseline was calculated by measuring existing one-way miles of the pedestrian and bicycle network from GIS data provided by the city. Future aspirational miles were calculated from GIS data provided by the city that represented the pedestrian and bicycle

⁷ ODOT, Social Equity Index Map, https://www.oregon.gov/odot/state-of-the-system/pages/equity.aspx

⁸ Baseline and future active transportation network miles include both sides of the street for sidewalks and bike facilities if the infrastructure exists on both sides. For greenways or bike boulevards, if the street is a two-way street the miles were doubled to represent two-directional travel. Paths always had the mileage double as it was assumed they provided space for travel in both directions.

network from the Eugene 2035 Transportation System Plan (TSP)⁹ and confirming areas that would represent new mileage rather than upgrading existing mileage. Total future aspirational miles is equal to the sum of existing mileage and future new mileage. The 2045 target is the number of miles that would need to be completed by that time to stay on pace to reach the 100% target in 2050.

Baseline: 1,166 miles of active transportation network

2045 Target: 1,328 miles of active transportation network

Target Setting Calculations

1. Set interim targets assuming linear progress every 5 years from 2025 to 2050.

Calculations:

- 1,367 (2050 target) 1,166 (baseline) = 200 miles
- 200 miles / 26 years = 8 miles annual change with respect to 2024 baseline
 - o 2024 1,166 (Baseline)
 - 0 2025 1,174
 - 0 2030 1,213
 - 0 2035 1,251
 - 0 2040 1,290
 - o 2045 1,328
 - 2050 1,367

AT.1E. Active transportation network increase in Underserved Population Neighborhoods (equity)

Target Setting Methodology

The Underserved Population Neighborhoods (UPNs) measure for AT.1E is the same calculations as the AT.1 performance measure, but within the UPNs in Eugene. GIS data for baseline and future active transportation networks were clipped to UPNs and new calculations were created. The 2045 target is the number of miles that would need to be completed by that time to stay on pace to reach the 100% target in 2050.

Baseline: 210 miles of active transportation network within UPNs

2045 Target: 247 miles of active transportation network within UPNs

Target Setting Calculations

1. Set interim targets assuming linear progress every 5 years from 2025 to 2050.

Calculations:

⁹ 2035 Transportation System Plan, https://www.eugene-or.gov/3941/2035-Transportation-System-Plan

- 256 (2050 target) 210 (baseline) = 46 miles within UPNs
- 46 miles / 26 years = 2 miles annual change with respect to 2024 baseline
 - o 2024 210 (Baseline)
 - 0 2025 212
 - 0 2030 221
 - 0 2035 230
 - 0 2040 238
 - o 2045 247
 - 0 2050 256

AT.2. Shared micromobility trips taken

Target Setting Methodology

The intent of this measure is to track the increase in the number of shared micromobility trips taken. The target increases at a rate consistent with the percent change in active mode trips for the target in the AT.4 Mode Share performance measure. The percent change used in this target is based on the change in total trips, not the change in mode share percentage.

Baseline micromobility trips represent bikeshare trips that originate within the Eugene urban growth boundary (UGB) in 2024 and equal 200,551 trips. The active trip percent increase from AT.4 is 102%. This brings the 2045 target for bikeshare trips to 405,882.

Baseline: 200,551 trips

2045 Target: 405,882 trips

Target Setting Calculations

- 1. 200,551 shared micromobility trips in 2024
- 2. 2045 target is based on the 2024 bikeshare trips taken. These trips are increased based on the active trips percent increase from AT.4 (mode share) from 2020 to 2045, which was 102%.
- 3. 200,551 + (200,551*102%) = 405,882 trips
- 4. Set interim targets assuming linear progress every 5 years from 2025 to 2045.
- 5. Create a 2050 target that is a linear growth based on the annual growth between 2020 and 2045.

Calculations:

- 405,882 (2045 target) 200,551 (baseline) = 205,331 trips
- 205,331 trips / 21 years = 9,778 annual change with respect to 2024 baseline (interim targets rounded to nearest hundred)

- o 2024 200,551 (Baseline)
- o 2025 210,300
- o 2030 259,200
- 0 2035 308,100
- o 2040 357,000
- o **2045 405,882**
- 2050 454,771 (linear extension of 2045 target)

AT.3. Access to jobs and services through active transportation and transit (regional)

Target Setting Methodology

The intent of this measure is to track the increase in the number of jobs and services (food, education, employment, and/or healthcare) accessible to households within the Central Lane Metropolitan Planning Organization (CLMPO) boundary through walking, biking, and transit within a reasonable travel time. In general, the CLMPO area considers travel time to a destination to be "accessible" if it takes 20 minutes or less, regardless of mode. The target is set to be a 100% increase in the number of jobs and services accessible to the average household within a reasonable travel time via active modes or transit with a cap set at 95% of all jobs or services accessible. The 95% cap, rather than aiming for 100% accessible, is to account for some jobs and services existing in areas that may be unrealistic to serve by these modes.

The baseline percentages for each mode were taken from the Central Lane MPO's 2045 Regional Transportation Plan. ¹⁰ The targets were developed by increasing the count of jobs or services accessible in 2020 by 100%, taking into account the 95% cap, and then dividing that new total by the total number of jobs or services in 2050 to reach the percent accessible. The number of services in 2050 uses the same total as the baseline because the future number of services is not forecast as a part of the LCOG RTP process. This services methodology mirrors the RTP methodology. As a result, the total number of services accessible in 2050 cannot be shared, only the percentages. The count of number of jobs accessible in 2050 is included below. Interim year target counts for either measure are not available as the interim year total jobs or services, to be multiplied by the percentages, are not available as a forecast.

The values apply to the whole region and this target is currently applied to all jurisdictions equally. A linear rate of change is assumed for interim targets up to 2050. The 2045 target represents where these percentages should be at that time in order to stay on pace to meet the 2050 target.

Baseline and 2045 Target:

Figure E-2: Baseline and targets for each mode: % jobs accessible to average household in the region

Mode	Baseline - % Jobs Accessible	2045 Target - % Jobs Accessible
Biking	25% (33,352)	35.7%
Walking	1.5% (2,001)	2.1%

¹⁰ Central Lane Metropolitan Planning Organization 2045 Regional Transportation Plan, 2022. Page 192-193. https://www.lcog.org/media/16406

Transit 82% (109,394) 93%	Transit		93%
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Figure E-3: Baseline and targets for each mode: % service accessible to average household in the region

Mode	Baseline - % Services Accessible	2045 Target - % Services Accessible
Biking	22%	40.3%
Walking	2.0%	3.7%
Transit	81%	93%

Target Setting Calculations

- 1. Calculate 100% increase for each mode for each category (jobs and services) based on count of jobs or services accessible in 2020, rather than percentages. This generates a 2050 future number of jobs and services that are targeted to be accessible.
- 2. Divide future accessible counts by the total 2050 jobs and 2050 services to generate future percentage targets.
 - a. Future 2050 jobs: 176,38611
 - b. Future 2050 services: 456. Note that 456 is the existing services total. The RTP notes that this should be used in the future year to generate percentages for the purpose of this analysis because there is no future year forecast for number of services.
- 3. Apply a cap of 95% to each category for each mode to ensure that value is slightly less than 100% to create a realistic target.
- 4. Access to jobs: Set interim targets assuming linear progress every 5 years from 2025 to 2050

Calculations:

- Biking
 - 37.8% biking (2050 target) 25% biking (2020 baseline) = 12.8% bike access change
 - $_{\odot}$ 12.8% / 30 years = 0.43% annual change with respect to 2020 baseline
- Walking
 - 2.3% walking (2050 target) 1.5% walking (2020 baseline) = 0.8% walk access change

¹¹ 2050 demographic forecasts were developed using the Portland State University (PSU) Population Resource Center's Oregon Population Forecast Program, population forecasts for all UGBs, <u>Population Forecasts | Portland State University</u> 2024 interim forecasts for 2050. The 2050 households and employment forecasts were developed by applying the LCOG Regional Travel Demand Model household size and employment to population ratios to the PSU 2050 population forecast. Regional totals were arrived at by finding the ratio between the sum of Eugene, Springfield, and Coburg population to the regional population from the LCOG model and applying that to the 2050 PSU sum for the same UGBs.

o 0.8% / 30 years = 0.03% annual change with respect to 2020 baseline

Transit

- 95% transit (2050 target) 82% transit (2020 baseline) = 13% transit access change
- 13% / 30 years = 0.43% annual change with respect to 2020 baseline

Figure E-4: Interim baseline and targets for each mode - % jobs accessible to the average household

Year	Biking – % Jobs Accessible	Walking - % Jobs Accessible	Transit - % Jobs Accessible
2020 (Baseline)	25% (33,352)	1.5% (2,001)	82% (109,394)
2025	27.1%	1.6%	84%
2030	29.3%	1.8%	86%
2035	31.4%	1.9%	89%
2040	33.5%	2.0%	91%
2045	35.7%	2.1%	93%
2050	37.8% (66,704)	2.3% (4,002)	95% (167,566)

5. Access to services: Set interim targets assuming linear progress every 5 years from 2025 to 2050

Calculations:

Biking

- 44% biking (2050 target) 22% biking (2020 baseline) = 22% bike access change
- 22% / 30 years = 0.73% annual change with respect to 2020 baseline

Walking

- 4.0% walking (2050 target) 2.0% walking (2020 baseline) = 2.0% walk access change
- 2.0% / 30 years = 0.07% annual change with respect to 2020 baseline

Transit

- \circ 95% transit (2050 target) 81% transit (2020 baseline) = 14% transit access change
- 14% / 30 years = 0.47% annual change with respect to 2020 baseline

Figure E-5: Interim baseline and targets for each mode - % services accessible to the average household

Year	Biking – % Services	Walking – % Services	Transit - % Services
	Accessible	Accessible	Accessible
2020 (Baseline)	22%	2.0%	81%

Year	Biking – % Services Accessible	Walking – % Services Accessible	Transit – % Services Accessible
2025	25.7%	2.3%	83%
2030	29.3%	2.7%	86%
2035	33%	3.0%	88%
2040	36.7%	3.3%	90%
2045	40.3%	3.7%	93%
2050	44%	4.0%	95%

AT.4. Mode share

Target Setting Methodology

The intent of this measure is to track the increase in the mode share of people using active transportation, such as biking and walking. The target uses the projected increase in trip diversion rate from single occupancy vehicle (SOV) trips of 20 miles or less round-trip to active modes for Eugene. This SOV diversion rate comes from the Vision Eval (VE) model preferred scenario input.

Baseline mode share values were calculated from the LCOG Regional Travel Demand Model for the base year, 2020, for Eugene. Target values were calculated by applying the VE SOV diversion rate to the future year trips by mode from the LCOG Regional Travel Demand Model. Future year in the regional model is 2045. The VE SOV diversion rate to active modes only applies to trips that are 20 miles or less round-trip. To apply this diversion rate, the future trips by mode from the regional model were calculated separately for all trips and for trips that had an average round-trip distance of 20 miles or less. The SOV diversion rate was applied to the 20 miles or less SOV trips and a redistributed mode share for 2045 was created. The 2050 target holds constant from 2045 since the values are shares of total trips.

The SOV diversion rate to active modes in Eugene is 25.0% in 2045 in the preferred scenario Vision Eval model.

Baseline and 2045 Target:

Figure E-6: Baseline and targets for each mode

Mode	2020 Baseline - Share of Daily Trips	2045 Target - Share of Daily Trips
Single Occupancy Vehicle (SOV)	49.7%	37.6%
High Occupancy Vehicle (HOV) ¹²	32.0%	31.2%
Transit	2.6%	4.4%
Active (Bike + Walk)	15.7%	26.8%

Target Setting Calculations

- 1. Set interim targets assuming linear progress every 5 years from 2025 to 2045.
- 2. Create a 2050 target by holding the 2045 shares constant.

¹² HOV for these calculations includes school buses and school bus passengers.

Calculations:

- 26.8% active mode share (2045 target) 15.7% active mode share (2020 baseline) = 11.1% active mode share change
- 11.1% / 25 years = 0.44% annual change with respect to 2020 baseline
 - Interim targets in Figure E-7.

Figure E-7: Interim baseline and targets for each mode

Year	SOV	HOV	Transit	Active
2020 (Baseline)	49.7%	32.0%	2.6%	15.7%
2025	47.2%	31.9%	3.0%	17.9%
2030	44.8%	31.7%	3.3%	20.1%
2035	42.4%	31.5%	3.7%	22.3%
2040	40.0%	31.4%	4.1%	24.6%
2045	37.6%	31.2%	4.4%	26.8%
2050	37.6%	31.2%	4.4%	26.8%

Transportation System

TpSys.1. Household-based vehicle miles traveled (VMT) per capita (regional)

Target Setting Methodology

The intent of this measure is to track the household-based VMT per capita in the Central Lane region. The LCOG Regional Travel Demand model was used to calculate average daily household-based VMT per capita for the region in the base year, 2020. This was used to set the baseline of 10.2. The 2050 regional target for VMT per capita reduction is 11% by 2050. An 11% reduction of per capita VMT in the Central Lane region would be needed to meet statewide GHG reduction goals in combination with VMT reductions in other regions and other GHG reduction strategies. This target is currently applied to all jurisdictions equally. The rate of change between the baseline and 2040 and 2040 and 2050 follows the rate of change outlined in the OAR 660-044-0025 targets 14. This documentation shows that two-thirds of the reduction should occur by 2040 and the remaining one-third should occur between 2040 and 2050 at a linear rate of change. The 2045 target is set using this methodology.

Baseline: 10.2 VMT per capita

2045 Target: 9.27 VMT per capita

¹³ 2050 target: ODOT calculated share of full OAR 660-044-25 target within local authority, beyond State-led per mile pricing (30% reduction in greenhouse gas emissions target from 2005 levels dropped to 11%, same for all 905 regions). The analysis was done using VE-State which has a horizon year of 2050. It assumes no change in VMT per capita between 2005 to today so the 2005-2050 target becomes today-2050 target. This analysis was done as a part of the 905 performance measure work and is not included in any currently published documentation.

¹⁴ OAR 660-044-0025 Greenhouse Gas Emissions Reduction Targets for Other Metropolitan Areas. https://oregon.public.law/rules/oar_660-044-0025

Target Setting Calculations

- 1. 10.2 VMT per capita
- 2. 11% reduction of VMT per capita
- 3. 10.2*11% = 1.12 reduction total
- 4. 10.2 VMT (2020 baseline) 1.12 reduction = 9.08 VMT per capita (2050 target)
- 5. Set interim targets assuming linear progress every 5 years from 2025 to 2050.

Calculations:

- 1.12 reduction / 30 years = 0.037 annual change with respect to 2020 baseline
 - 2020 10.20 (Baseline)
 - 0 2025 10.01
 - 0 2030 9.83
 - 0 2035 9.64
 - 0 2040 9.45
 - o 2045 9.27
 - 0 2050 9.08

Transit

TR.1. Level of transit service (regional)

Target Setting Methodology

The intent of this measure is to calculate the total annual fixed-route bus revenue miles per capita in the Lane Transit District (LTD) service area. The LTD service area does not match the Central Lane MPO boundary or any of the jurisdictional boundaries. This measure is considered a regional measure and is applied to all jurisdictions equally.

The baseline per capita value was calculated by summing bus and BRT revenue service miles for LTD from the National Transit Database (NTD) 2023 report and dividing this value by the same report's service area population. ¹⁵ The target is based on the percent change between the 2020 and 2045 Vision Eval preferred scenario inputs for the same measure. ¹⁶ The percent change is used here instead of the direct VE value because of a mismatch in population to reach the per capita value between the VE model and the LTD service area.

¹⁵ National Transit Database, Lane Transit District 2023 Annual Agency Profile, https://www.transit.dot.gov/sites/fta.dot.gov/files/transit_agency_profile_doc/2023/00007.pdf

¹⁶ The VE model revenue miles per capita was calculated by dividing the Bus and BRT (fixed route service miles) measure by the sum of the population in Eugene, Springfield, and Coburg. The VE model did not capture the population for all of the LTD service district and therefore the per capita value from VE is not able to be directly used.

The percent change for bus and BRT revenue miles per capita from the VE preferred scenario model is 128%. This was applied to the existing 9.16 bus and BRT revenue miles per capita for LTD to reach the target of 20.87 revenue miles per capita in 2045. The 2050 target stays constant with the 2045 target since this is a per capita measure. If the population increases between 2045 and 2050, service will need to be expanded as well to stay on target.

Baseline: 9.16 revenue miles per capita (bus and BRT)

2045 Target: 20.87 revenue miles per capita (bus and BRT)

Target Setting Calculations

- 1. 9.16 revenue miles per capita
- 2. 128% increase of revenue per capita
- 3. 9.16*128% = 11.71 increase total
- 4. 9.16 revenue miles per capita (2023 baseline) + 11.71 increase = 20.87 revenue miles per capita (2045 target)
- 5. Set interim targets assuming linear progress every 5 years from 2025 to 2045.
- 6. Create a 2050 target that holds the 2045 target constant.

Calculations:

- 11.71 increase in revenue miles per capita / 22 years = 0.53 revenue miles per capita annual change with respect to 2023 baseline
 - o 2023 9.16 (Baseline)
 - 0 2025 10.22
 - 0 2030 12.88
 - o 2035 15.55
 - 0 2040 18.21
 - o **2045 20.87**
 - o 2050 20.87

TR.2. Access to frequent transit

Target Setting Methodology

The intent of this measure is to track the increase in the share of households in Eugene within $\frac{1}{4}$ mile of Lane Transit District's (LTD) designated frequent transit network (FTN). The FTN network generally provides service at least 16 hours a day with average frequencies of 15 minutes or better¹⁷. The target is based on future households and a future FTN. To analyze future households at a smaller scale than the UGB, the traffic analysis zones (TAZ) and corresponding 2045 forecast

¹⁷ Lane Transit District Long-Range Transit Plan, 2014. Page 24. https://www.ltd.org/projects-and-planning/#2045

households from the LCOG Regional Travel Demand Model were used ¹⁸. To have a comparison based on the same data, the baseline was calculated from the same TAZs but with the regional model base year (2020) households. As a result, total households for this measure will vary somewhat from other measures which rely on 2018-2022 American Community Survey data for the baseline and a UGB-wide 2050 household forecast.

The existing and future FTNs were provided by LTD. LTD's System Review in 2024 updated the future FTN network by creating several new high frequency corridors. While Eugene's TSP¹⁹ supports the FTN network as defined in the 2014 LTD Long-Range Transit Plan, the future FTN used in this effort is the most recent available from LTD and is different from the FTN network referenced in Eugene's TSP. If the planned FTN changes in the future, these targets can be updated to reflect the most current plans.

Total households within a $\frac{1}{4}$ mile of the FTN corridors were developed using a proportional area allocation GIS analysis using 2020 and 2045 households from the regional travel demand model. The 2050 target was determined by dividing future total households within a $\frac{1}{4}$ mile of the future FTN corridors by the future total households within the Eugene UGB. The 2045 target is the percent of households that would need to be within $\frac{1}{4}$ mile of FTN by that time to stay on pace to reach the target in 2050.

Baseline: 31.3% of households within ¼ mile of FTN corridors

2045 Target: 40.2% of future households within ¼ mile of future FTN corridors

Target Setting Calculations

1. Set interim targets assuming linear progress every 5 years from 2025 to 2050.

Calculations:

- 42% households (2050 target) 31.3% households (2020 baseline) = 10.62% difference
- 10.62% / 30 years = 0.35% annual change with respect to 2020 baseline (interim targets rounded to nearest whole number)
 - 2020 31.3% (Baseline)
 - 2025 33%
 - 0 2030 35%
 - 0 2035 37%
 - 0 2040 38%
 - o **2045 40.2%**
 - 0 2050 42%

¹⁸ At the time of this analysis, the 2045 horizon year model from LCOG was the most current available. The 2045 households at the TAZ level are being used as a proxy for 2050. The target is a percentage, rather than a total number, so if households increase between 2045 and 2050 the percentage will still apply.

¹⁹ Eugene 2035 TSP. 2017. Page 43. https://www.eugene-or.gov/DocumentCenter/View/40989/ETSP-Volume1-No-Attachments

TR.2E. Access to frequent transit in Underserved Population Neighborhoods (equity)

Target Setting Methodology

The Underserved Population Neighborhoods (UPNs) measure for TR.2E is a similar calculation as the TR.2 performance measure but focused on underserved population neighborhoods. Households within $\frac{1}{4}$ mile of the frequent transit network and within UPNs were selected and this was divided by all households in UPNs. This analysis finds the share of households that are within a UPN that have access to frequent transit.

Total households within a $\frac{1}{4}$ mile of the FTN corridors were developed using a proportional area allocation GIS analysis using 2020 and 2045 households from the regional travel demand model. The 2050 target was determined by dividing the future total number of households within $\frac{1}{4}$ mile of future FTN corridors and within UPNs by the future total number of households within UPNs. The 2045 target is the percent of households that would need to be within $\frac{1}{4}$ mile of FTN by that time to stay on pace to reach the target in 2050.

Baseline: 41.9% of households within UPNs are within ¼ mile of FTN corridors

2045 Target: 49.6% of future households within UPNs are within ¼ mile of future FTN corridors

Target Setting Calculations

1. Set interim targets assuming linear progress every 5 years from 2025 to 2050.

Calculations:

- 51.1% households (2050 target) 41.9% households (2020 baseline) = 9.25% difference
- 9.25% / 30 years = 0.31% annual change with respect to 2020 baseline (interim targets rounded to nearest whole number)
 - o 2020 41.9% (Baseline)
 - 0 2025 43%
 - 0 2030 45%
 - 0 2035 47%
 - 0 2040 48%
 - o 2045 49.6%
 - o 2050 51.1%

TR.3. Transit stops intersecting with safe and convenient pedestrian facilities

Target Setting Methodology

The intent of this measure is to track the increase in the share of transit stops intersecting with safe and convenient pedestrian facilities, with a future target of 100%. To qualify, a transit stop must both be on the pedestrian network and either be on local streets or near a safe pedestrian crossing. The description below provides details on how this analysis was conducted to determine what was considered both safe and convenient.

To calculate the baseline, each transit stop was analyzed with GIS and a visual QA/QC with satellite imagery to determine if the transit stop was both on the pedestrian network and had a safe and convenient marked pedestrian crossing. First, each transit stop was determined to be on the pedestrian network or not. Next, each transit stop was checked for its nearest cross streets. If the nearest cross streets were both local streets, the transit stop was considered to have safe and convenient pedestrian crossings. If either of the nearest cross streets were a collector or arterial, the transit stop was analyzed further. The arterial and collector transit stops generally had to be within 200 feet of a signalized intersection or within 100 feet of a marked safe crossing. Signalized intersections were assumed to be safe. Marked crossings were considered safe if they had an additional enhancement beyond pavement markings, such as signage, lighting, or curb extensions. Figure E-8 illustrates the primary methodology used to determine if a transit stop had a safe and convenient crossing. Each transit stop had to meet both requirements, on the pedestrian network and near a safe pedestrian crossing, to be considered intersecting with pedestrian facilities for this measure.

To accommodate a variety of roadway and right of way constraints, there is flexibility in determining if a transit stop should qualify for meeting these safe and convenient criteria. This flexibility allows for professional judgment to permit a low-volume collector to be considered as safe and convenient without analyzing pedestrian crossings (treating it like a local street) or an increase in transit stop distance from crosswalks and traffic signals based on factors such as roadway speed or volume or if no feasible option exists to meet the more stringent criteria. These considerations require local knowledge and the potential need for site visits and were not taken into account in the development of this baseline. As updates to this measure occur, it is expected that the baseline may be adjusted to take these factors into account.

The 100% target is 2050. The 2045 target is how many transit stops would need to qualify by that time to stay on pace to hit the target in 2050.

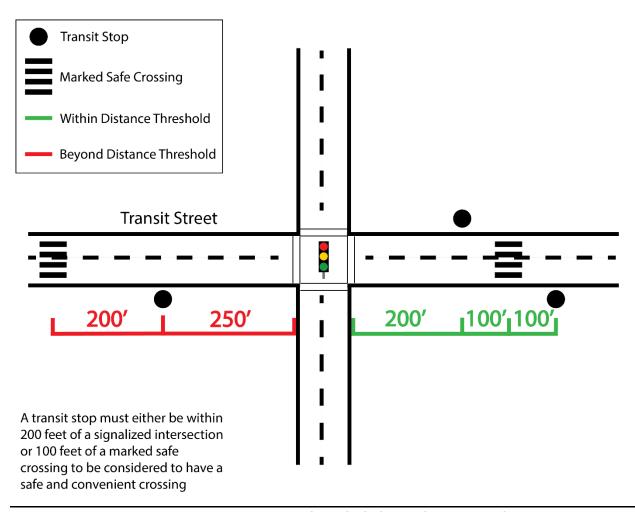


Figure E-8. TR.3 "Safe and Convenient" Crossing Methodology

Baseline: 42% of transit stops in Eugene intersecting with safe and convenient pedestrian facilities

2045 Target: 88.9% of transit stops in Eugene intersecting with safe and convenient pedestrian facilities

Target Setting Calculations

- Set interim targets assuming linear progress every 5 years from 2025 to 2050
 Calculations:
 - 100% of transit stops (2050 target) 42% of transit stops (baseline) = 58%
 - 58% of transit stops / 26 years = 2.2% annual change with respect to 2024 baseline
 - o 2024 42.0% (Baseline)
 - 0 2025 44.3%
 - o **2030 55.4**%
 - o 2035 66.6%

- o 2040 77.7%
- o **2045 88.9%**
- o 2050 100%

TR.3E. Transit stops intersecting with safe and convenient pedestrian facilities in Underserved Population Neighborhoods (equity)

Target Setting Methodology

The Underserved Population Neighborhoods (UPNs) measure for TR.3E uses the same calculations as the TR.3 performance measure, but within the UPNs in Eugene. Transit stop GIS data were selected for those within UPNs and new calculations were created. The 100% target is 2050. The 2045 target is how many transit stops would need to qualify by that time to stay on pace to hit the target in 2050.

Baseline: 47.1% of transit stops intersecting with safe and convenient pedestrian facilities within UPNs in Eugene

2045 Target: 89.8% of transit stops intersecting with safe and convenient pedestrian facilities within UPNs in Eugene

Target Setting Calculations

- Set interim targets assuming linear progress every 5 years from 2025 to 2050
 Calculations:
 - 100% of transit stops (2050 target) 47% of transit stops (baseline) = 53%
 - 53% of transit stops / 26 years = 2.0% annual change with respect to 2024 baseline
 - o 2024 47.1% (Baseline)
 - 0 2025 49.2%
 - 0 2030 59.3%
 - 0 2035 69.5%
 - 0 2040 79.7%
 - o 2045 89.8%
 - 0 2050 100%

Parking

P.1. Share of area dedicated to surface parking in Climate-Friendly Areas

Target Setting Methodology

The intent of this measure is to track the change in the percentage of the area within Climate-Friendly Areas (CFAs) that is dedicated to surface parking. Surface parking means parking stalls or lots that are not on the street and are not part of a parking structure, like a parking garage. Underground parking was not considered.

Baseline data was created through a combination of data gathering from OpenStreetMap and digitization in GIS over satellite imagery to trace surface parking areas. The area of each surface parking lot was calculated and they were all summed together to find the total acres of surface parking in CFAs. This was divided by the total area of CFAs to find the percentage. The target was developed in coordination with the City of Eugene based on historic redevelopment of surface parking within the areas and reasonable expectations for future redevelopment. The final target is 2050. The 2045 target is the surface area percentage dedicated to parking in 2045 needed to stay on pace to hit the target in 2050.

Baseline: 21.4% of the area in CFAs dedicated to surface parking

2045 Target: 19.7% of the area in CFAs dedicated to surface parking

Target Setting Calculations

1. Set interim targets assuming linear progress every 5 years from 2025 to 2050.

Calculations:

- 129 acres of surface parking/ 601 acres in CFAs = 21.4% of the area of CFAs dedicated to surface parking
- Target is to decrease surface parking by 2.5 acres every 5 years
 - 5.2 (# of 5 year increments from 2024 2050) * 2.5 = 13 acres reduced
 - 129 acres (2024 baseline) 13 acres (target reduction) = 115.7 acres of parking
 - 115.7 / 601 acres in CFAs = 19.2% of area in CFAs is surface parking
- 21.4% (baseline) 19.2% (2050 target) = 2.2% reduction
- 2.2% / 26 years = 0.08% annual reduction with respect to 2024 baseline
 - o 2024 21.4% (Baseline)
 - 0 2025 21.3%
 - 0 2030 20.9%
 - o 2035 20.5%
 - o 2040 20.1%
 - o 2045 19.7%
 - o 2050 19.2%

Transportation Options

TO.1. Transportation options program participation (regional)

Target Setting Methodology

The intent of this measure is to track the increase in the number of employees who participate in an employer-provided transportation options program. The baseline for this measure used currently available data, which was based on employees who received a discounted pass through the group pass program with LTD. The future target is based on the 2045 Vision Eval preferred scenario input for participation in commute options/transportation demand management (TDM) programs inclusive of LTD and additional initiatives. LTD provides transit service regionally and does not divide this data by jurisdiction; therefore, this measure is considered a regional measure and is applied to all jurisdictions equally.

VE modeling results in a target of 59.9% participation of all employees in a commute options program by 2045 in the region. The 2045 target is based on the LCOG 2045 population estimates. The 2050 target is based on an expanded demographic forecast to 2050 based on the population forecast from Portland State University.²⁰

Baseline: 9,782 employees

2045 Target: 105,507 employees

Target Setting Calculations

- 1. 2045 target: 2045 total future employees * 59.9% participation rate = 105,507 employees
- 2. 2050 target: 2050 total future employees * 59.9% participation rate = 105,655 employees
- 3. Set interim targets assuming linear progress every 5 years from 2025 to 2045

Calculations:

- 105,507 employees (representing 59.9% of all employees) (2045 future) 9,782 employees (baseline) = 95,725 employees
- 95,725 employees / 21 years = 4,558 annual change with respect to 2024 baseline (interim targets rounded to nearest hundred)
 - o 2024 9,782 (Baseline)
 - 0 2025 14,300
 - o 2030 37,100

²⁰ 2050 demographic forecasts were developed using the Portland State University (PSU) Population Resource Center's Oregon Population Forecast Program, population forecasts for all UGBs, <u>Population Forecasts | Portland State University</u> 2024 interim forecasts for 2050. The 2050 households and employment forecasts were developed by applying the LCOG Regional Travel Demand Model household size and employment to population ratios to the PSU 2050 population forecast. Regional totals were arrived at by finding the ratio between the sum of Eugene, Springfield, and Coburg population to the regional population from the LCOG model and applying that to the 2050 PSU sum for the same UGBs.

- 0 2035 60,000
- 0 2040 82,700
- o **2045 105,507**
- o 2050 105,655

DATE: May 12, 2025

TO: LCOG, ODOT, City of Springfield

FROM: Parametrix

SUBJECT: Appendix B: City of Springfield Target Setting Calculations

PROJECT NAME: Climate Office Technical Analysis and Support

Appendix B: Springfield Target Setting Calculations

This appendix describes the methodology used to calculate and set targets for jurisdictions' performance measures as required by Oregon Administrative Rule (OAR) 660-012-0910 and described in the Scenario Plan Implementation Chapter. Future targets for each performance measure were set at levels to implement the preferred scenario by 2045, target values were calculated using the VisionEval Scenario Planning tool, the LCOG Region Travel Model, local Transportation System Plans, and other sources as appropriate. The performance targets are set from a baseline year which varies depending on data availability. Additional future year targets are provided to 2050 consistent with the region's metropolitan GHG reduction targets in OAR 660-044-0025 and the 2049 Regional Transportation Plan update horizon year.

The equity performance measures aim to incorporate and prioritize jurisdiction-wide greenhouse gas (GHG) reduction efforts as they relate to underserved populations, defined in OAR 660-012-0125 (2). The project team identified these communities' locations using the Oregon Department of Transportation (ODOT) Social Equity Index (SEI)²¹, which relies on U.S. Census American Community Survey (ACS) data to form scores for block groups ranging from "Low" disparity to "High" disparity. This memo refers to groups in the "High" disparity category as Underserved Population Neighborhoods (UPNs). UPNs should receive focused attention in engagement and decision-making to address historic and current inequities.

Active Transportation

AT.1. Active transportation network increase

Target Setting Methodology

The intent of this measure is to advance the 2015 strategy to "Build bicycling and walking projects in local 20-year plans." The target is to build 100% of the aspirational number of active transportation network miles in Springfield by 2050. The baseline was calculated by measuring existing one-way miles of the pedestrian and bicycle network from GIS data provided by the city. Future aspirational miles were calculated by digitizing the pedestrian and bicycle network within the 20-year horizon from the Springfield 2035 Transportation System Plan (TSP) and confirming areas that would

²¹ ODOT, Social Equity Index Map, https://www.oregon.gov/odot/state-of-the-system/pages/equity.aspx

²² Baseline and future active transportation network miles include both sides of the street for sidewalks and bike facilities if the infrastructure exists on both sides. For greenways or bike boulevards, if the street is a two-way street the miles were doubled to represent two-directional travel. Paths always had the mileage double as it was assumed they provided space for travel in both directions.

²³ Adopted 2014 and updated 2020, 2035 Transportation System Plan, https://springfield-or.gov/city/development-public-works/transportation-system-plan/

represent new mileage rather than upgrading existing mileage. Total future aspirational miles is equal to the sum of existing mileage and future new mileage. The 2045 target is the number of miles that would need to be completed by that time to stay on pace to reach the 100% target in 2050.

Baseline: 440 miles of active transportation network

2045 Target: 547 miles of active transportation network

Target Setting Calculations

1. Set interim targets assuming linear progress every 5 years from 2025 to 2050.

Calculations:

- 572 (2050 target) 440 (baseline) = 132 miles
- 132 miles / 26 years = 5.1 mile annual change with respect to 2024 baseline
 - o 2024 440 (Baseline)
 - 0 2025 445
 - 0 2030 470
 - 0 2035 496
 - o 2040 521
 - o 2045 547
 - 0 2050 572

AT.1E. Active transportation network increase in Underserved Population Neighborhoods (equity)

Target Setting Methodology

The Underserved Population Neighborhoods (UPNs) measure for AT.1E is the same calculations as the AT.1 performance measure, but within the UPNs in Springfield. GIS data for baseline and future active transportation networks were clipped to UPNs and new calculations were created. The 2045 target is the number of miles that would need to be completed by that time to stay on pace to reach the 100% target in 2050.

Baseline: 112 miles of active transportation network within UPNs

2045 Target: 132 miles of active transportation network within UPNs

Target Setting Calculations

1. Set interim targets assuming linear progress every 5 years from 2025 to 2050.

Calculations:

- 137 (2050 target) 112 (baseline) = 26 miles within UPNs
- 26 miles / 26 years = 1 mile annual change with respect to 2024 baseline

- o 2024 112 (Baseline)
- 0 2025 113
- 0 2030 117
- 0 2035 122
- 0 2040 127
- o 2045 132
- 0 2050 137

AT.2. Shared micromobility trips taken

Target Setting Methodology

The intent of this measure is to track the increase in the number of shared micromobility trips taken. The target increases at a rate consistent with the percent change in active mode trips for the target in the AT.4 Mode Share performance measure. The percent change used in this target is based on the change in total trips, not the change in mode share percentage.

Baseline micromobility trips represent bikeshare trips that originate within the Springfield urban growth boundary (UGB) in 2024. Since only 9 months of data was available from April – December 2024, wherein 507 trips were counted, an average monthly trip count of 56 provided the base to estimate 676 trips in 2024. The active trip percent increase from AT.4 is 93%. This brings the 2045 target for bikeshare trips to 1,306.

Baseline: 676 trips

2045 Target: 1,306 trips

Target Setting Calculations

- 1. 507 shared micromobility trips from April December 2024
- 2. 507 trips / 9 months = 56 trips / month
- 3. 56*12 = 676 trips / year
- 4. 2045 target is based on the 2024 bikeshare trips taken. These trips are increased based on the active trips percent increase from AT.4 (mode share) from 2020 to 2045, which was 93%.
- 5. 676 + (676*93%) = 1,306 trips
- 6. Set interim targets assuming linear progress every 5 years from 2025 to 2045.
- 7. Create a 2050 target that is a linear growth based on the annual growth between 2020 and 2045.

Calculations:

• 1,306 (2045 target) - 676 (baseline) = 630 trips

- 630 trips / 21 years = 30 annual change with respect to 2024 baseline (interim targets rounded to nearest ten)
 - o 2024 676 (Baseline)
 - 0 2025 710
 - 0 2030 860
 - 0 2035 1.010
 - 0 2040 1,160
 - o 2045 1,306
 - 2050 1,456 (linear extension of 2045 target)

AT.3. Access to jobs and services through active transportation and transit (regional)

Target Setting Methodology

The intent of this measure is to track the increase in the number of jobs and services (food, education, employment, and/or healthcare) accessible to households within the Central Lane Metropolitan Planning Organization (CLMPO) boundary through walking, biking, and transit within a reasonable travel time. In general, the CLMPO area considers travel time to a destination to be "accessible" if it takes 20 minutes or less, regardless of mode. The target is set to be a 100% increase in the number of jobs and services accessible to the average household within a reasonable travel time via active modes or transit with a cap set at 95% of all jobs or services accessible. The 95% cap, rather than aiming for 100% accessible, is to account for some jobs and services existing in areas that may be unrealistic to serve by these modes.

The baseline percentages for each mode were taken from the Central Lane MPO's 2045 Regional Transportation Plan.²⁴ The targets were developed by increasing the count of jobs or services accessible in 2020 by 100%, taking into account the 95% cap, and then dividing that new total by the total number of jobs or services in 2050 to reach the percent accessible. The number of services in 2050 uses the same total as the baseline because the future number of services is not forecast as a part of the LCOG RTP process. This services methodology mirrors the RTP methodology. As a result, the total number of services accessible in 2050 cannot be shared, only the percentages. The count of number of jobs accessible in 2050 is included below. Interim year target counts for either measure are not available as the interim year total jobs or services, to be multiplied by the percentages, are not available as a forecast.

The values apply to the whole region and this target is currently applied to all jurisdictions equally. A linear rate of change is assumed for interim targets up to 2050. The 2045 target represents where these percentages should be at that time in order to stay on pace to meet the 2050 target.

Baseline and 2045 Target:

Figure S-9: Baseline and targets for each mode: % jobs accessible to average household in the region

Mode	Baseline - % Jobs Accessible	2045 Target – % Jobs Accessible
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²⁴ Central Lane Metropolitan Planning Organization 2045 Regional Transportation Plan, 2022. Page 192-193. https://www.lcog.org/media/16406

Biking	25% (33,352)	35.7%
Walking	1.5% (2,001)	2.1%
Transit	82% (109,394)	93%

Figure S-10: Baseline and targets for each mode: % service accessible to average household in the region

Mode	Baseline - % Services Accessible	2045 Target - % Services Accessible
Biking	22%	40.3%
Walking	2.0%	3.7%
Transit	81%	93%

Target Setting Calculations

- 1. Calculate 100% increase for each mode for each category (jobs and services) based on count of jobs or services accessible in 2020, rather than percentages. This generates a future 2050 future number of jobs and services that are targeted to be accessible.
- 2. Divide future accessible counts by the total 2050 jobs and 2050 services to generate future percentage targets.
 - a. Future 2050 jobs: 176,386²⁵
 - b. Future 2050 services: 456. Note that 456 is the existing services total. The RTP notes that this should be used in the future year to generate percentages for the purpose of this analysis because there is no future year forecast for number of services.
- 3. Apply a cap of 95% to each category for each mode to ensure that value is slightly less than 100% to create a realistic target.
- 4. Access to jobs: Set interim targets assuming linear progress every 5 years from 2025 to 2050

Calculations:

- Biking
 - o 37.8% biking (2050 target) 25% biking (2020 baseline) = 12.8% bike access change
 - 12.8% / 30 years = 0.43% annual change with respect to 2020 baseline
- Walking

²⁵ 2050 demographic forecasts were developed using the Portland State University (PSU) Population Resource Center's Oregon Population Forecast Program, population forecasts for all UGBs, <u>Population Forecasts | Portland State University</u> 2024 interim forecasts for 2050. The 2050 households and employment forecasts were developed by applying the LCOG Regional Travel Demand Model household size and employment to population ratios to the PSU 2050 population forecast. Regional totals were arrived at by finding the ratio between the sum of Eugene, Springfield, and Coburg population to the regional population from the LCOG model and applying that to the 2050 PSU sum for the same UGBs.

- 2.3% walking (2050 target) 1.5% walking (2020 baseline) = 0.8% walk access change
- 0.8% / 30 years = 0.03% annual change with respect to 2020 baseline

Transit

- 95% transit (2050 target) 82% transit (2020 baseline) = 13% transit access change
- 13% / 30 years = 0.43% annual change with respect to 2020 baseline

Figure S-11: Interim baseline and targets for each mode - % jobs accessible to the average household

Year	Biking - % Jobs Accessible	Walking - % Jobs Accessible	Transit - % Jobs Accessible
2020 (Baseline)	25% (33,352)	1.5% (2,001)	82% (109,394)
2025	27.1%	1.6%	84%
2030	29.3%	1.8%	86%
2035	31.4%	1.9%	89%
2040	33.5%	2.0%	91%
2045	35.7%	2.1%	93%
2050	37.8% (66,704)	2.3% (4,002)	95% (167,566)

5. Access to services: Set interim targets assuming linear progress every 5 years from 2025 to 2050

Calculations:

Biking

- 44% biking (2050 target) 22% biking (2020 baseline) = 22% bike access change
- 22% / 30 years = 0.73% annual change with respect to 2020 baseline

Walking

- 4.0% walking (2050 target) 2.0% walking (2020 baseline) = 2.0% walk access change
- 2.0% / 30 years = 0.07% annual change with respect to 2020 baseline

Transit

- 95% transit (2050 target) 81% transit (2020 baseline) = 14% transit access change
- 14% / 30 years = 0.47% annual change with respect to 2020 baseline

Figure S-12: Interim baseline and targets for each mode - % services accessible to the average household

Year	Biking – % Services Accessible	Walking – % Services Accessible	Transit - % Services Accessible
2020 (Baseline)	22%	2.0%	81%
2025	25.7%	2.3%	83%
2030	29.3%	2.7%	86%
2035	33%	3.0%	88%
2040	36.7%	3.3%	90%
2045	40.3%	3.7%	93%
2050	44%	4.0%	95%

AT.4. Mode share

Target Setting Methodology

The intent of this measure is to track the increase in the mode share of people using active transportation, such as biking and walking. The target uses the projected increase in trip diversion rate from single occupancy vehicle (SOV) trips of 20 miles or less round-trip to active modes for Springfield. This SOV diversion rate comes from the Vision Eval (VE) model preferred scenario input.

Baseline mode share values were calculated from the LCOG Regional Travel Demand Model for the base year, 2020, for Springfield. Target values were calculated by applying the VE SOV diversion rate to the future year trips by mode from the LCOG Regional Travel Demand Model. Future year in the regional model is 2045. The VE SOV diversion rate to active modes only applies to trips that are 20 miles or less round-trip. To apply this diversion rate, the future trips by mode from the regional model were calculated separately for all trips and for trips that had an average round-trip distance of 20 miles or less. The SOV diversion rate was applied to the 20 miles or less SOV trips and a redistributed mode share for 2045 was created. The 2050 target holds constant from 2045 since the values are shares of total trips.

The SOV diversion rate to active modes in Springfield is 12.0% in 2045 in the preferred scenario Vision Eval model.

Baseline and 2045 Target:

Figure S-13: Baseline and targets for each mode

Mode	2020 Baseline - Share of Daily Trips	2045 Target - Share of Daily Trips
Single Occupancy Vehicle (SOV)	51.4%	45.3%
High Occupancy Vehicle (HOV) ²⁶	35.2%	32.9%
Transit	2.6%	5.3%
Active (Bike + Walk)	10.7%	16.5%

Target Setting Calculations

²⁶ HOV for these calculations includes school buses and school bus passengers.

- 1. Set interim targets assuming linear progress every 5 years from 2025 to 2045.
- 2. Create a 2050 target by holding the 2045 shares constant.

Calculations:

- 16.5% active mode share (2045 target) 10.7% active mode share (2020 baseline) = 5.8% active mode share change
- 5.8% / 25 years = 0.23% annual change with respect to 2020 baseline
 - Interim targets in Figure E-7.

Figure S-14: Interim baseline and targets for each mode

Year	SOV	HOV	Transit	Active
2020 (Baseline)	51.4%	35.2%	2.6%	10.7%
2025	50.2%	34.7%	3.2%	11.9%
2030	49.0%	34.3%	3.7%	13.0%
2035	47.8%	33.8%	4.2%	14.2%
2040	46.5%	33.4%	4.8%	15.3%
2045	45.3%	32.9%	5.3%	16.5%
2050	45.3%	32.9%	5.3%	16.5%

Transportation System

TpSys.1. Household-based vehicle miles traveled (VMT) per capita (regional)

Target Setting Methodology

The intent of this measure is to track the household-based VMT per capita in the Central Lane region. The LCOG Regional Travel Demand model was used to calculate average daily household-based VMT per capita for the region in the base year, 2020. This was used to set the baseline of 10.2. The 2050 regional target for VMT per capita reduction is $11\%^{27}$ by 2050. An 11% reduction of per capita VMT in the Central Lane region would be needed to meet statewide GHG reduction goals in combination with VMT reductions in other regions and other GHG reduction strategies. This target is currently applied to all jurisdictions equally. The rate of change between the baseline and 2040 and 2040 and 2050 follows the rate of change outlined in the OAR 660-044-0025 targets²⁸. This documentation shows that two-thirds of the reduction should occur by 2040 and the remaining one-third should occur between 2040 and 2050 at a linear rate of change. The 2045 target is set using this methodology.

 $^{^{27}}$ 2050 target: ODOT calculated share of full OAR 660-044-25 target within local authority, beyond State-led per mile pricing (30% reduction in greenhouse gas emissions target from 2005 levels dropped to 11%, same for all 905 regions). The analysis was done using VE-State which has a horizon year of 2050. It assumes no change in VMT per capita between 2005 to today so the 2005-2050 target becomes today-2050 target. This analysis was done as a part of the 905 performance measure work and is not included in any currently published documentation.

²⁸ OAR 660-044-0025 Greenhouse Gas Emissions Reduction Targets for Other Metropolitan Areas. https://oregon.public.law/rules/oar_660-044-0025

Baseline: 10.2 VMT per capita

2045 Target: 9.27 VMT per capita

Target Setting Calculations

- 1. 10.2 VMT per capita
- 2. 11% reduction of VMT per capita
- 3. 10.2*11% = 1.12 reduction total
- 4. 10.2 VMT (2020 baseline) 1.12 reduction = 9.08 VMT per capita (2050 target)
- 5. Set interim targets assuming linear progress every 5 years from 2025 to 2050.

Calculations:

- 1.12 reduction / 30 years = 0.037 annual change with respect to 2020 baseline
 - o 2020 10.20 (Baseline)
 - 0 2025 10.01
 - 0 2030 9.83
 - 0 2035 9.64
 - 0 2040 9.45
 - o 2045 9.27
 - 0 2050 9.08

Transit

TR.1. Level of transit service (regional)

Target Setting Methodology

The intent of this measure is to calculate the total annual fixed-route bus revenue miles per capita in the Lane Transit District (LTD) service area. The LTD service area does not match the Central Lane MPO boundary or any of the jurisdictional boundaries. This measure is considered a regional measure and is applied to all jurisdictions equally.

The baseline per capita value was calculated by summing bus and BRT revenue service miles for LTD from the National Transit Database (NTD) 2023 report and dividing this value by the same report's service area population.²⁹ The target is based on the percent change between the 2020 and 2045 Vision Eval preferred scenario inputs for the same measure.³⁰ The percent change is used here

²⁹ National Transit Database, Lane Transit District 2023 Annual Agency Profile, https://www.transit.dot.gov/sites/fta.dot.gov/files/transit_agency_profile_doc/2023/00007.pdf

³⁰ The VE model revenue miles per capita was calculated by dividing the Bus and BRT (fixed route service miles) measure by the sum of the population in Eugene, Springfield, and Coburg. The VE model did not capture the population for all of the LTD service district and therefore the per capita value from VE is not able to be directly

instead of the direct VE value because of a mismatch in population to reach the per capita value between the VE model and the LTD service area.

The percent change for bus and BRT revenue miles per capita from the VE preferred scenario model is 128%. This was applied to the existing 9.16 bus and BRT revenue miles per capita for LTD to reach the target of 20.87 revenue miles per capita in 2045. The 2050 target stays constant with the 2045 target since this is a per capita measure. If the population increases between 2045 and 2050, service will need to be expanded as well to stay on target.

Baseline: 9.16 revenue miles per capita (bus and BRT)

2045 Target: 20.87 revenue miles per capita (bus and BRT)

Target Setting Calculations

- 1. 9.16 revenue miles per capita
- 2. 128% increase of revenue per capita
- 3. 9.16*128% = 11.71 increase total
- 9.16 revenue miles per capita (2023 baseline) + 11.71 increase = 20.87 revenue miles per capita (2045 target)
- 5. Set interim targets assuming linear progress every 5 years from 2025 to 2045.
- 6. Create a 2050 target that holds the 2045 target constant.

Calculations:

- 11.71 increase in revenue miles per capita / 22 years = 0.53 revenue miles per capita annual change with respect to 2023 baseline
 - 2023 9.16 (Baseline)
 - o 2025 10.22
 - o 2030 12.88
 - o 2035 15.55
 - 0 2040 18.21
 - o 2045 20.87
 - 2050 20.87

TR.2. Access to frequent transit

Target Setting Methodology

The intent of this measure is to track the increase in the share of households in Springfield within ¼ mile of Lane Transit District's (LTD) designated frequent transit network (FTN). The FTN network generally provides service at least 16 hours a day with average frequencies of 15 minutes or

used.

better³¹. The target is based on future households and a future FTN. To analyze future households at a smaller scale than the UGB, the traffic analysis zones (TAZ) and corresponding 2045 forecast households from the LCOG Regional Travel Demand Model were used³². To have a comparison based on the same data, the baseline was calculated from the same TAZs but with the regional model base year (2020) households. As a result, total households for this measure will vary somewhat from other measures which rely on 2018-2022 American Community Survey data for the baseline and a UGB-wide 2050 household forecast.

The existing and future FTNs were provided by LTD. LTD's System Review in 2024 updated the future FTN network by creating several new high frequency corridors. It is important to note that other planning efforts such as the Springfield TSP³³ have used different assumptions for a future network. The future FTN used in this effort is the most recent available from LTD and is different from the FTN corridor network in the Springfield TSP. If the planned FTN changes in the future, these targets can be updated to reflect the most current plans.

Total households within a $\frac{1}{4}$ mile of the FTN corridors were developed using a proportional area allocation GIS analysis using 2020 and 2045 households from the regional travel demand model. The 2050 target was determined by dividing future total households within a $\frac{1}{4}$ mile of the future FTN corridors by the future total households within the Springfield UGB. Based on the location of future households and the planned future FTN, Springfield's target for 2050 is to hold constant the number of households with access to FTN corridors between today and 2050. Because this is a percentage, the total number of households with access will increase.

Baseline: 55% of households within ¼ mile of FTN corridors

2045 Target: 55% of future households within 1/4 mile of future FTN corridors

Target Setting Calculations

- Set interim targets assuming linear progress every 5 years from 2025 to 2050
 Calculations:
 - 55% households (2050 target) 55% households (2020 baseline) = 0% difference

TR.2E. Access to frequent transit in Underserved Population Neighborhoods (equity)

Target Setting Methodology

The Underserved Population Neighborhoods (UPNs) measure for TR.2E is a similar calculation as the TR.2 performance measure but focused on underserved population neighborhoods. Households within $\frac{1}{4}$ mile of the frequent transit network and within UPNs were selected and this was divided by all households in UPNs. This analysis finds the share of households that are within a UPN that have access to frequent transit.

³¹ Lane Transit District Long-Range Transit Plan, 2014. Page 24. https://www.ltd.org/projects-and-planning/#2045

³² At the time of this analysis, the 2045 horizon year model from LCOG was the most current available. The 2045 households at the TAZ level are being used as a proxy for 2050. The target is a percentage, rather than a total number, so if households increase between 2045 and 2050 the percentage will still apply.

³³ Springfield 2035 TSP, 2014. Figure 9, page 82. https://www.springfield-or.gov/wp-content/uploads/2021/04/FINAL-Springfield-TSP-4_22_20-corrected-4.30.21.pdf

Total households within a $\frac{1}{4}$ mile of the FTN corridors were developed using a proportional area allocation GIS analysis using 2020 and 2045 households from the regional travel demand model. The 2050 target was determined by dividing the future total number of households within $\frac{1}{4}$ mile of future FTN corridors and within UPNs by the future total number of households within UPNs. The 2045 target is the percent of households that would need to be within $\frac{1}{4}$ mile of FTN by that time to stay on pace to reach the target in 2050.

Baseline: 70.5% of households within UPNs are within ¼ mile of FTN corridors

2045 Target: 71.7% of future households within UPNs are within ¼ mile of future FTN corridors

Target Setting Calculations

- 1. Set interim targets assuming linear progress every 5 years from 2025 to 2050
 - Calculations:
 - 72% households (2050 target) 70.5% households (2020 baseline) = 1.52% difference
 - 1.52% / 30 years = 0.05% annual change with respect to 2020 baseline (interim targets rounded to nearest whole number)
 - o 2020 70.5% (Baseline)
 - 0 2025 71%
 - 0 2030 71%
 - 0 2035 71%
 - o 2040 71.5%
 - o 2045 71.7%
 - 0 2050 72.0%

TR.3. Transit stops intersecting with safe and convenient pedestrian facilities

Target Setting Methodology

The intent of this measure is to track the increase in the share of transit stops intersecting with safe and convenient pedestrian facilities, with a future target of 100%. To qualify, a transit stop must both be on the pedestrian network and either be on local streets or near a safe pedestrian crossing. The description below provides details on how this analysis was conducted to determine what was considered both safe and convenient.

To calculate the baseline, each transit stop was analyzed with GIS and a visual QA/QC with satellite imagery to determine if the transit stop was both on the pedestrian network and had a safe and convenient marked pedestrian crossing. First, each transit stop was determined to be on the pedestrian network or not. Next, each transit stop was checked for its nearest cross streets. If the nearest cross streets were both local streets, the transit stop was considered to have safe and convenient pedestrian crossings. If either of the nearest cross streets were a collector or arterial, the transit stop was analyzed further. The arterial and collector transit stops generally had to be within

200 feet of a signalized intersection or within 100 feet of a marked safe crossing. Signalized intersections were assumed to be safe. Marked crossings were considered safe if they had an additional enhancement beyond pavement markings, such as signage, lighting, or curb extensions. Figure S-15 illustrates the primary methodology used to determine if a transit stop had a safe and convenient crossing. Each transit stop had to meet both requirements, on the pedestrian network and near a safe pedestrian crossing, to be considered intersecting with pedestrian facilities for this measure.

To accommodate a variety of roadway and right of way constraints, there is flexibility in determining if a transit stop should qualify for meeting these safe and convenient criteria. This flexibility allows for professional judgment to permit a low-volume collector to be considered as safe and convenient without analyzing pedestrian crossings (treating it like a local street) or an increase in transit stop distance from crosswalks and traffic signals based on factors such as roadway speed or volume or if no feasible option exists to meet the more stringent criteria. These considerations require local knowledge and the potential need for site visits and were not taken into account in the development of this baseline. As updates to this measure occur, it is expected that the baseline may be adjusted to take these factors into account.

The 100% target is 2050. The 2045 target is how many transit stops would need to qualify by that time to stay on pace to hit the target in 2050.

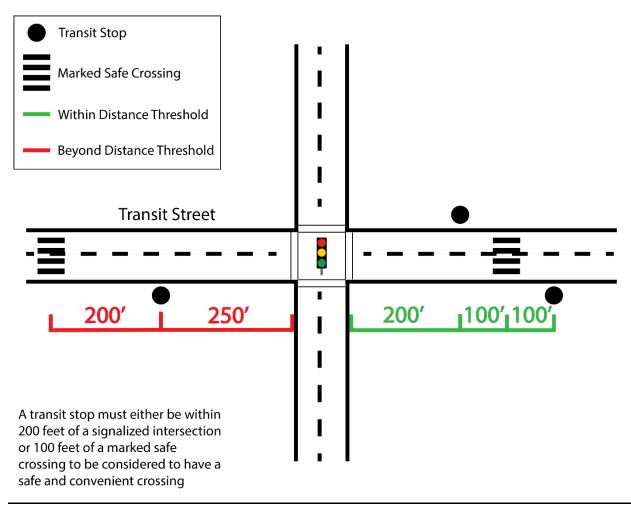


Figure S-15. TR.3 "Safe and Convenient" Crossing Methodology

Baseline: 45.1% of transit stops in Springfield intersecting with safe and convenient pedestrian facilities

2045 Target: 89.4% of transit stops in Springfield intersecting with safe and convenient pedestrian facilities

Target Setting Calculations

- Set interim targets assuming linear progress every 5 years from 2025 to 2050
 Calculations:
 - 100% of transit stops (2050 target) 45.1% of transit stops (baseline) = 54.9%
 - 54.9% of transit stops / 26 years = 2.1% annual change with respect to 2024 baseline
 - o 2024 45.1% (Baseline)
 - 0 2025 47.2%
 - o 2030 57.8%
 - o 2035 68.3%
 - 0 2040 78.9%
 - o 2045 89.4%
 - o 2050 100%

TR.3E. Transit stops intersecting with safe and convenient pedestrian facilities in Underserved Population Neighborhoods (equity)

Target Setting Methodology

The Underserved Population Neighborhoods (UPNs) measure for TR.3E uses the same calculations as the TR.3 performance measure, but within the UPNs in Springfield. Transit stop GIS data were selected for those within UPNs and new calculations were created. The 100% target is 2050. The 2045 target is how many transit stops would need to qualify by that time to stay on pace to hit the target in 2050.

Baseline: 54.5% of transit stops intersecting with safe and convenient pedestrian facilities within UPNs in Springfield

2045 Target: 91.3% of transit stops intersecting with safe and convenient pedestrian facilities within UPNs in Springfield

Target Setting Calculations

Set interim targets assuming linear progress every 5 years from 2025 to 2050
 Calculations:

- 100% of transit stops (2050 target) 54.5% of transit stops (baseline) = 45.5%
- 45.5% of transit stops / 26 years = 1.7% annual change with respect to 2024 baseline
 - o 2024 54.5% (Baseline)
 - o 2025 56.3%
 - 0 2030 65.0%
 - o 2035 73.8%
 - o 2040 82.5%
 - o 2045 91.3%
 - o 2050 100%

Transportation Options

TO.1. Transportation options program participation (regional)

Target Setting Methodology

The intent of this measure is to track the increase in the number of employees who participate in an employer-provided transportation options program. The baseline for this measure used currently available data, which was based on employees who received a discounted pass through the group pass program with LTD. The future target is based on the 2045 Vision Eval preferred scenario input for participation in commute options/transportation demand management (TDM) programs inclusive of LTD and additional initiatives. LTD provides transit service regionally and does not divide this data by jurisdiction; therefore, this measure is considered a regional measure and is applied to all jurisdictions equally.

VE modeling results in a target of 59.9% participation of all employees in a commute options program by 2045 in the region. The 2045 target is based on the LCOG 2045 population estimates. The 2050 target is based on an expanded demographic forecast to 2050 based on the population forecast from Portland State University.³⁴

Baseline: 9,782 employees

2045 Target: 105,507 employees

Target Setting Calculations

1. 2045 target: 2045 total future employees * 59.9% participation rate = 105,507 employees

³⁴ 2050 demographic forecasts were developed using the Portland State University (PSU) Population Resource Center's Oregon Population Forecast Program, population forecasts for all UGBs, <u>Population Forecasts | Portland State University</u> 2024 interim forecasts for 2050. The 2050 households and employment forecasts were developed by applying the LCOG Regional Travel Demand Model household size and employment to population ratios to the PSU 2050 population forecast. Regional totals were arrived at by finding the ratio between the sum of Eugene, Springfield, and Coburg population to the regional population from the LCOG model and applying that to the 2050 PSU sum for the same UGBs.

- 2. 2050 target: 2050 total future employees * 59.9% participation rate = 105,655 employees
- 3. Set interim targets assuming linear progress every 5 years from 2025 to 2045 Calculations:
 - 105,507 employees (representing 59.9% of all employees) (2045 future) 9,782 employees (baseline) = 95,725 employees
 - 95,725 employees / 21 years = 4,558 annual change with respect to 2024 baseline (interim targets rounded to nearest hundred)
 - o 2024 9,782 (Baseline)
 - o 2025 14,300
 - o 2030 37,100
 - 0 2035 60,000
 - o 2040 82,700
 - o 2045 105,507
 - 0 2050 105,655

Implementation Chapter Appendix C

Preferred Scenario Inputs Documentation

TO: Kelly Clarke; LCOG

FROM: RSG

CC: Tara Weidner and Brian Hurley; ODOT

DATE: March 3, 2025

SUBJECT: Preliminary Preferred Scenario Inputs

Appendix C: Preferred Scenario Inputs

Preferred Scenario Inputs

The Central Lane area completed the 2015 Central Lane Scenario Planning (2015 CLSP) process in response to requirements from HB 2001 (2009) and SB 1059 (2010).³⁵ The CLSP contained a Preferred scenario that described a set of actions (investments and policies) which the region would take to achieve the GHG reduction target in OAR 660-044-025. The Preferred scenario was designed using an early iteration of a strategic model known as GreenSTEP.

The Climate Office and LCOG worked to translate the 2015 CLSP modeling and analysis for the Preferred scenario from GreenSTEP to the updated VisionEval Regional Strategic Planning Model (VE-RSPM). The VE-RSPM is used to demonstrate the Preferred scenario achieves the target rule reductions in VMT and GHG transportation emissions by 2045³⁶. The VE-RSPM is designed to reflect the level of investment and the policy actions in the earlier agreed upon Preferred scenario. This memo sets out those Preferred scenario inputs, investments and actions when translated to the VE-RSPM toolset. A second "Reference" scenario for 2045 demonstrates the VMT outcomes if the Preferred scenario actions are not taken.

Inputs differ in some cases between the 2015 CLSP and VisionEval, and records of assumptions made for the 2015 CLSP are not always clear. For some inputs, assumptions in the state's VisionEval model (VE-State) assist in filling gaps for both the Reference (Adopted Plans 2022) and STS Vision (Statewide Transportation Strategy) scenarios, but gaps remain in the ability to exactly translate the historic specification of the Preferred scenario into VE-RSPM.

Since the 2015 CLSP Preferred scenario sets the stage for the region's plans and policies, it is important that the region commits to the assumptions in the VisionEval Preferred scenario. Note, though, that some adjustment may continue to be made to the scenario to make sure it still meets the VMT and GHG targets.

³⁵ Final 2015 Central Lane Scenario Planning Final Report (Icog.org), and project page.

 $^{^{36}}$ OAR 660-044-0025 target GHG reduction of 20% by 2035 and 25% by 2045 from 2005 levels.

The DLCD VMT Targets account for light duty vehicle travel. Specifically, within VisionEval, the Central Lane VE model VMT summarized in this memo for the purposes of evaluating progress toward attaining the GHG and VMT targets include household vehicles, transit vans, and commercial service vehicles.

This Memo's subsequent sections present the VE-RSPM input and its translation from the CLSP input and assumption. The best input translation's forecast of the 2005 to 2045 change in VMT in the LCOG VE-RSPM Preferred scenario is a household VMT per capita reduction of 11% in the Reference scenario and 25.6% in the Preferred scenario.

LCOG VE-RSPM Model Geography and Input Assumptions

The VisionEval geography is shown in Figure VE-116. The model region includes three Azones that represent the three jurisdictions of Coburg, Eugene, and Springfield. There are 72 Bzones that represent the smallest, most disaggregate geography used in VisionEval.

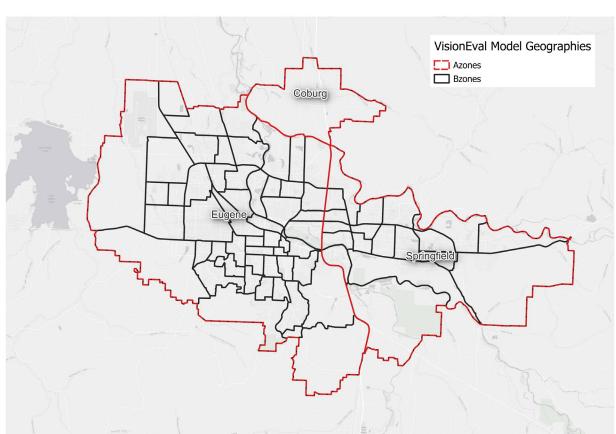


Figure VE-116: VE Model Boundaries

The socio-economic and demographic built form includes the share of households in mixed use zones in the model region. VisionEval identifies zones and the household within those zones that are located in areas of Mixed Use Neighborhoods. The VisionEval definition is based on a model that uses two key variables, population density and the share of households that are single family. Population, jobs, and mixed use percentages are shown in Table VE-4.

Table VE-4: Socio Economic Summary

		2020			2045	
Output	Eugene	Springfield	Coburg	Eugene	Springfield	Coburg
Population	192,033	75,562	2,345	239,493	88,615	3,074
Total Emp	97,876	33,611	1,920	123,084	48,917	4,138
Percent of Households in Mixed Use Neighborhoods	8.5%	4.7%	2.3%	16.2%	5.3%	2.7%

Scenario Powertrain Assumptions

The Preferred scenario includes the vehicle powertrains and vehicle fuel assumptions within the two scenarios.³⁷ Table VE-5 summarizes the total number and share of household vehicles by each powertrain type. The table reinforces the reduced effect that gasoline fuel taxes will have given the improved efficiency of the overall share of hybrids and electric vehicles increase.

Table VE-5: Household Vehicle Fleet Mix

	2020 REFERENCE SCENARIO VEHICLE SHARES	2045 REFERENCE SCENARIO VEHICLE SHARES	2045 PREFERRED SCENARIO VEHICLE SHARES
Internal Combustion Vehicles	96%	9%	9%
Hybrid Vehicles	3%	29%	50%
Plug-in Hybrid Electric Vehicles	0%	9%	19%
Battery Electric Vehicles	1%	53%	22%
Total	100%	100%	100%
Effective Miles Per Gallon	27.4	81.6	84.4

Pricing

This section covers a range of vehicle use taxes including gas taxes, both state and local, and other fees, such as VMT fees. VisionEval assumes a variety of fees and taxes (e.g., per mile, per gallon) to model changes in travel behavior in response to changes in user costs. They are reported here as the resulting operating costs per mile across all passenger vehicles. The model inputs are given at the Eugene, Springfield, and Coburg jurisdictional geography (Azone level). The VE-RSPM inputs (note, all in 2005\$) account for fuel taxes, VMT taxes, and a separate option which converts fuel tax into an equivalent tax per mile on electric vehicles.

The relevant inputs to VisionEval include:

- FuelTax.2005: Total fuel taxes per gallon equivalent of fuel in 2005 USD.
- VMTTax.2005: Tax per mile of vehicle travel in 2005 USD.

³⁷ The Reference scenario uses the powertrain package that accounts for the updated Adopted Plans and Trends vehicle powertrain package developed by ODOT to reflect the Advanced Clean Cars II and Advanced Clean Trucks rules. The preferred scenario uses the powertrain package that was originally developed for the STS.

Fuel Taxes

The 2015 CLSP originally modeled changes in per mile operating costs primarily by changing the amount of fuel tax assessed on liquid (i.e., gasoline and diesel) fuels. The 2015 CLSP essentially assumed a doubling of the gas tax. It did not include a VMT fee and any specific breakout of local vs state gas taxes.

The original 2015 CLSP inputs assume a fuel tax increase from \$0.464 (2005\$) in 2010 (base year) to \$0.98 in 2035 (or a 2.1x increase). To estimate what the CLSP would be in the new LCOG VisionEval model, the actual 2010 fuel tax of \$0.385 (2005\$) was used and multiplied by 2.1x to estimate what was expected for the year 2035 if the CLSP was implemented. The fuel tax for 2045 is assumed to equal the fuel tax in 2035 (no increase beyond inflation). Table VE-6 shows an analysis of the Preferred scenario with the level of fuel taxes used in the development of the CLSP.

TABLE VE-6: 2015 CLSP AZONE_VEH_USE_TAXES SUMMARY³⁸ AND OUTPUT IMPACTS

YEAR	FUELTAX.2005	VMTTAX.2005	PEVSURCHGTAXPROP	HOUSEHOLD VEHICLE COSTS PER MILE (OUTPUT)	DVMT PER CAPITA (OUTPUT)
2045	\$0.87	\$0.00	\$0.00	\$0.69	15.9

It is noted that the fuel tax raises the operational cost of vehicle use only for those vehicles which use gasoline or diesel and ignores the growing fleet of electric vehicles.

The CLSP made no distinction between state and local fuel taxes. As of 2010, Coburg and Springfield had a \$0.03 per gallon local fuel tax, and Eugene had a \$0.05 per gallon local fuel tax. ³⁹ While Coburg changed their rate to 6 cents by 2020, as shown in Table 4, note that all cities' *current* nominal rates are assumed to be indexed to inflation through 2045 in the Preferred scenario. The CLSP included 2035 fuel taxes and RSG assumed those real 2035 fuel taxes are indexed to inflation in the year 2045, but they were not assumed to increase beyond the rate of inflation.

In meeting the state's target rule, metropolitan areas are allowed to assume state actions occur that assist in reaching the VMT and GHG reduction targets. This includes a variety of state-led pricing policies in the STS, such as VMT, state gas taxes, as well as others such as pricing in externalities.

The update to the VisionEval Preferred scenario attempts to account for the recent changes in state gas tax as well as the policy shifts that Oregon has made to move towards a road user charge, or VMT fee. As such, some of the gas tax in the CLSP was shifted to an equivalent per mile pricing assumption in the VE-RSPM Preferred scenario.

VMT Fees

The more recent VE-RSPM Preferred scenario reduces the fuel tax and institutes a 3 cent per mile VMT tax which would affect all vehicles regardless of powertrain. The 3 cent VMT fee (indexed to keep up with inflation) is consistent with the STS but skips other allowed fees that the STS assumes to cover the

³⁸ Note: A factor of 1.32 can be applied to convert from 2005 dollars to 2020 dollars.

³⁹ Oregon Fuel Taxes https://www.oregon.gov/odot/ftg/pages/current%20fuel%20tax%20rates.aspx

full cost of maintaining the transportation system. ⁴⁰ Continuity with State approach to implementing a VMT fee is critical. The resulting VE Preferred Scenario input assumptions and associated effective cost per mile are reflected in the following tables.

The Preferred scenario includes an estimate of local, state, and federal fuel taxes. The local fuel taxes include \$0.06 (2024\$) for Coburg, \$0.05 (2024\$) for Eugene, and \$0.03 (2024\$) in Springfield, all per gallon, all indexed to keep up with inflation. State taxes were estimated for the year 2045 based on the state gas tax assumed in the STS. ⁴¹ The current state \$0.40 per gallon (2024\$) is assumed to increase to \$0.52 (2024\$) in the year 2045. This is estimated to be about half the rate of inflation. The federal fuel tax component is held constant over time at \$0.184/gallon (assuming it keeps up with inflation). Table VE-7 shows the Preferred scenario fuel taxes; the FUELTAX.2024 column shows the total effective fuel tax including local, state, and federal components.

Table VE-7: Fuel Tax Derivation for Preferred Scenario

Table TE TIT del Tax	Donivacioni	i i roioiroa oooriario				
GEOGRAPHY	YEAR	FUELTAX.2005	FUELTAX.2024	LOCAL FUEL TAX.2024	FED FUEL TAX.2024	STATE FUEL TAX.2024
Coburg	2005	0.395	0.580	0.044	0.184	0.352
Coburg	2010	0.376	0.552	0.039	0.184	0.328
Coburg	2020	0.439	0.644	0.060	0.184	0.400
Coburg	2035	0.439	0.644	0.060	0.184	0.400
Coburg	2045	0.525	0.770	0.060	0.184	0.526
Eugene	2005	0.415	0.609	0.073	0.184	0.352
Eugene	2010	0.394	0.578	0.066	0.184	0.328
Eugene	2020	0.432	0.634	0.050	0.184	0.400
Eugene	2035	0.432	0.634	0.050	0.184	0.400
Eugene	2045	0.518	0.760	0.050	0.184	0.526
Springfield	2005	0.395	0.580	0.044	0.184	0.352
Springfield	2010	0.376	0.552	0.039	0.184	0.328
Springfield	2020	0.419	0.614	0.030	0.184	0.400
Springfield	2035	0.419	0.614	0.030	0.184	0.400
Springfield	2045	0.504	0.740	0.030	0.184	0.526

The forecast VMT at the regional level resulting from the fuel and VMT charges in the Preferred scenario are shown in Table VE-8.

Table VE-8: PROPOSED EQUIVALENT AZONE_VEH_USE_TAXES SUMMARY AND OUTPUT IMPACTS

Preferred Scenario Inputs

⁴⁰ This assumption was represented as the 4x scenario in the Oregon Transportation Plan. In the STS, these additional fees were set at rates to also capture social costs or externalities, such as carbon taxes.

 $^{^{41}}$ The STS input had State and Fed taxes for .484 Fuel Tax in 2005\$. This value of .525 was derived from adding Fed 2024\$ + State 2024\$ = 0.484 Fuel Tax 2005\$ using the deflators.

YEAR	FUELTAX.2005	VMTTAX.2005	PEVSURCHGTAXPROP	HOUSEHOLD VEHICLE COSTS PER MILE (OUTPUT)	DVMT PER CAPITA
2005	\$0.402	\$0.0000	\$0.00	\$0.43	21.1
2010	\$0.382	\$0.0000	\$0.00	\$0.57	17.5
2020	\$0.430	\$0.0000	\$0.00	\$0.49	19.6
2045	\$0.516	\$0.0347	\$0.00	\$0.69	15.7

These results of this VE Preferred scenario (Table VE-8) show that the region's DVMT achieves the target rule with a 25% DVMT per capita reduction by 2045 (relative to 2005) applying both the fuel taxes and the VMT charge. The original CLSP fuel tax scenario (Table VE-6) assumed a higher fuel tax only scenario (without the VMT fees) just misses the VMT target with a reduction of 24.6% (15.9 DVMT per capita in 2045).

For comparison, the Reference scenario, which does not have these fuel tax changes, achieves a DVMT per capita reduction of 11% for the year 2045 compared to the year 2005.

The analysis of the resulting operating costs per mile indicates that in year 2045 the net impact -- cost per mile and VMT per capita – are nearly identical between the two options. Thus, the VE-RSPM inputs with smaller gas tax increase along with the VMT fee, which is more consistent with current state policy, is the favored input to use.

The proposed inputs reflect the CLSP Preferred scenario strategies *Pricing strategy #1: Support state* efforts to implement a vehicle miles traveled fee, and Pricing strategy #4: Support increases in the state and local fuel tax.

Proposed VE input: Use the proposed STS base VMT fee plus smaller gas tax increase for updating the CLSP Preferred scenario in VE-RSPM, better reflecting current state policies. The net effect is roughly equivalent to what was assumed in the 2015 CLSP scenario. The values shown in the tables in this section reflect the weighted average of inputs and the outputs – per mile vehicle operating costs and daily vehicles mile traveled (DVMT) - across all households.

Other pricing

In addition to road fees covered here, the 2015 CLSP Preferred scenario assumed 50% (rather than the allowed 100%) participation in Pay-as-you-drive Insurance programs. The Preferred Scenario uses the 100% participation in the Pay-as-you-drive insurance program as envisioned in the STS. The STS scenario also presumes that in addition to the VMT and fuel taxes there are additional costs used to maintain the transportation system that are collected based on the social and environmental impacts that vehicle driving imposes. ⁴² The 2015 CLSP **did not** specifically include these additional road costs in the Preferred scenario, nor are they assumed in the VE Preferred scenario.

Lane miles

Roadway lane miles represent the capacity available for cars and trucks in the network. The lane miles inform the relative demand for travel and the amount of daily vehicle miles consumed by the households in the model region. The roadway input is represented through lane miles for freeways and arterials in the model region (the input ignores intersection widening, short-aux lanes, and local road or collector streets).

Values for historic years (2005 through 2020) are calculated using Highway Performance Monitoring System (HPMS). For future years, the Reference scenario includes RTP projects that will result in a change in vehicle miles added to 2020. In contrast, the Preferred scenario assumes 2015 CLSP values, which are calculated using a lane miles per capita growth factor input, i.e., lane miles in future years increase as a proportion of population growth.

The lane-miles after applying these 2015 CLSP Preferred scenario growth factors and resulting lane-miles when combined with current population forecasts, are noted below, alongside the Reference scenario.

Proposed VE input: The Reference scenario uses the lane miles calculated from the RTP travel model network. The Preferred scenario uses the 2015 CLSP per capita growth rate shown below.

Table VE-9: 2015 CLSP LANE MILES GROWTH FACTORS FOR 2035

GEO	FWY GROWTH FACTOR	ART GROWTH FACTOR
LCOG	0.31 lane miles per capita	0.12 lane miles per capita

Table VE-10: LANE MILES INPUT - REFERENCE AND PREFERRED INPUTS

	REFERENCE SCENARIO LANE MILE CHANGES		PREFERRED USING PER CAPITA GROWTH RATES	
Year	FwyLaneMi	ArtLaneMi(1)	FwyLaneMi	ArtLaneMi
2005	130	417	130	417
2010	137	417	137	417
2020	145	419	145	419
2035	154	431	153	435
2045	161	441	155	439

⁽¹⁾ Note: 2005-2010 HPMS Arterial lane miles were smoothed to avoid a 2010 low outlier. (419, 401,415 changed to 417, 417, 415 arterial lane miles in 2005, 2010, 2015)

Transit Service and Transit Accessibility

Both models have inputs for transit annual revenue miles for different transit modes in the region. While the 2015 CLSP modeling was limited to bus revenue service miles, VisionEval expands to service miles for all transit types included in the National Transit Database (NTD) including demand response,

vanpool, and rapid bus (i.e., BRT). Both models are sensitive to bus-equivalent revenue miles per capita. The inputs from the 2015 CLSP are shown below in Table VE-11.

Table VE-11: Transit Inputs from 2015 CLSP

POLICY	2005	2010	2035 SCENARIO B (ENHANCE EXISTING POLICIES)
Per Capita Transit Service	1	2 13 (8% Growth)	28 (134% Growth)

The Reference scenario accounts for current Lane Transit District (LTD) forecasts of 13 bus service miles per capita in 2035, a growth of 45% relative to 2020 levels.⁴³

The Preferred scenario uses the 2015 CLSP 28 bus service miles per capita in 2035. 2035 rates were extrapolated to 2045 values in both scenarios, based on new population forecasts in those years. To fill out the Preferred Scenario to consider all transit types, not just bus miles, LTD future service miles for demand response and vanpool service from the Reference scenario are assumed.

A separate Transit "D" variable input contains information on public transportation accessibility by Bzone. The transit "D" is equivalent to the D4c variable in the EPA Smart Location Database. This variable represents the frequency of transit service within 0.25 miles of a block group boundary during the evening peak period. A 2020 Lane Transit District GTFS feed was used to inform historical values, and these are scaled up to represent the future year Preferred scenario increase in transit service miles using the increase in annual revenue miles as a scaler.

Proposed VE input: Use CLSP bus-equivalent service miles per capita. The Preferred scenario uses the same values from the Reference scenario for the demand response and vanpool service. Scale the base year Transit D accessibility input by the same proportion as revenue miles to reflect the future year Preferred transit service level.

Table VE-12: Transit Supply

Table VE 12: Transic Supply				
TRANSIT SUPPLY	2020 BASE	2045 REFERENCE	2045 PREFERRED	
Transit (bus equivalent) Annual Revenue Miles	4,087,176	6,461,464	11,726,295	
Transit service miles (fixed route in-service miles) (bus and BRT)	3,064,216	4,446,951	10,246,544	
Bus and BRT (bus equivalent) per capita (measure used in the CLSP)	15.1	19.5	28	

Figure VE-217: 2017 BZONE TRANSIT SERVICE INPUT

 $^{^{43}}$ LTD provided information to RSG regarding bus transit service out to 2035.

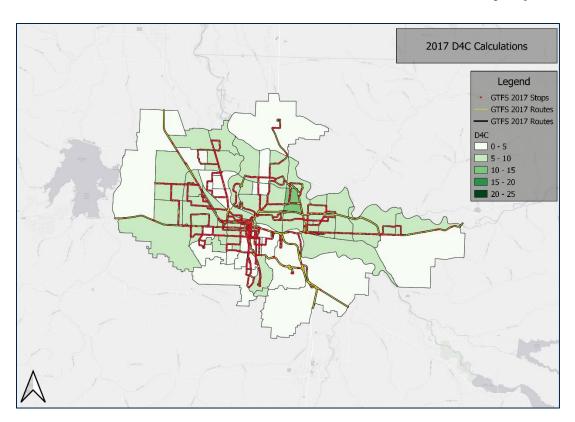
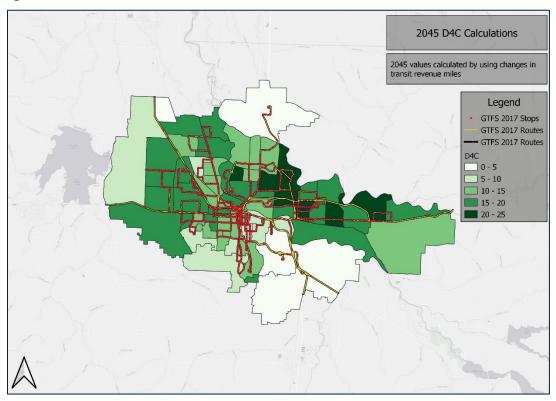


Figure VE-318: 2045 BZONE TRANSIT SERVICE INPUT



Transit Fleet

Transit fleet vehicles and fuels are represented by base fuels, blending of renewables in those fuels, and powertrain mix. The tables below reflect the CLSP Reference scenario transit fleet assumptions as informed for this effort by LTD. Additionally, a scenario from VE-State reflects the 2035 Fleet

Procurement Plan, with more renewables and more EV adoption to 2035 goals, these are held steady through 2045. The older CLSP inputs were much less ambitious than the current LTD-based Reference scenario. The current LTD-based Reference scenario replaces the older inputs.

These tables show that under the Preferred scenario, the LTD buses are assumed to be a mix of gas and diesel through 2010, shifting to 7% electric buses in 2020 and 90% in 2035-2045. In contrast, the Reference scenario assumes a shift of 19% of buses to electric in 2035 and 2045. Vans remain 100% gasoline for all model years. Diesel buses assume a biodiesel mix of 6% in 2010, going up to 90% in 2035 and 2045 compared with 43% in the Reference scenario. Gas vehicles (pre-2035 vans and some buses) are assumed to use 10% ethanol mix in 2005 and 2010, and 11% in 2020 and all future years.

The input is divided into the following categories for each vehicle or fuel type:

- Propicev: Proportion of vehicles that use internal combustion engines.
- PropHev: Proportion of vehicles that are hybrid electric vehicles.
- PropBev: Proportion of vehicles that are battery electric vehicles.
- PropDiesel: Proportion of vehicles that use diesel fuel.
- PropGasoline: Proportion of vehicles that use gasoline.
- EthanolPropGasoline: Proportion of gasoline vehicles that use ethanol.
- BiodieselPropDiesel: Proportion of diesel vehicles that use biodiesel.

Table VE-13: Transit powertrain PROPORTIONS - LTD scenarios

VL-13. Harisic powerd	lain Fixor Oktio	NO - LID SCENAI	103					
			REFERENCE			PREFERRED		
	2005	2010	2020	2035	2045	2035	2045	
VanProplcev	100%	100%	100%	100%	100%	100%	100%	
VanPropHev	0%	0%	0%	0%	0%	0%	0%	
VanPropBev	0%	0%	0%	0%	0%	0%	0%	
BusProplcev	100%	100%	93%	81%	81%	10%	10%	
BusPropHev	0%	0%	0%	0%	0%	0%	0%	
BusPropBev	0%	0%	7%	19%	19%	90%	90%	

Table VE-14: Transit Fuel MIX - LTD scenarios

		REFERENCE			PREFI	ERRED
2005	2010	2020	2035	2045	2035	2045

Van Prop Diesel	0%	0%	0%	0%	0%	0%	0%
Van Prop Gasoline	100%	100%	100%	100%	100%	100%	100%
BusPropDiesel	82%	83%	82%	82%	82%	100%	100%
BusPropGasoline	18%	17%	18%	18%	18%	0%	0%

Table VE-15: transit biofuel MIX - LTD scenario

	REFERENCE								
	2005	2010	2020	2035	2045	2035	2045		
Transit Ethan ol Prop Gasoline	10%	10%	10%	11%	11%	11%	11%		
TransitBiodieselPropDiesel	0%	6%	43%	43%	43%	90%	90%		

Proposed VE input: Use the recently developed LTD-based reference scenario as the Reference scenario. For the Preferred scenario use the VE-State values which reflect full implementation of the LTD Climate Action Policy by 2035.

ITS

Intelligent Transportation Systems, (ITS) consists of advanced signal timing (fully actuated and dynamic), access management, ramp metering, incident response systems. Access management considers the design of arterials to reduce curb cuts, left-turns across multiple lanes of traffic, and improve the general safety and flow of the facility.

Freeway operations (ramp meters and incident response) are primarily State responsibilities with arterial operations (signal coordination and access management) being a local authority activity. These actions are represented in the model input files as the share of DVMT impacted by these various operational improvements.

The arterial operation inputs from 2015 CLSP Preferred scenario were transferred directly into VE-RSPM for 2035 and assumed the same in 2045, signals are coordinated and well timed on 80% of daily VMT and a high degree of access management in-place along 50% of the daily arterial VMT. These are slightly higher than the CLSP Reference values of 73% and 50%, borrowed from VE-State reference future.

The freeway operations inputs from the 2015 CLSP seem dated. They match or are low relative to VE-State STS assumptions. VE-State STS suggested a higher share of freeway VMT (65% in 2035) is subject to ramp metering and incident management (95% in both) relative to CLSP values (50%). This is slightly higher than VE-State Reference values of 50% and 90%, respectively.⁴⁴

Proposed VE input: Use the 2015 CLSP Preferred scenario for arterial operational programs. Use the higher VE-State STS values for freeway operational programs in the Preferred scenario. This represents a

⁴⁴ Regional deployment of ITS is summarized here: https://www.lcog.org/thempo/page/intelligent-transportation-systems-plan

higher deployment of ramps and incident management along freeways in the region that are in the 2015 CLSP scenario.

The input contains the following variables:

- RampMeterDeployProp: Proportion of freeway DVMT affected by ramp metering.
- IncidentMgtDeployProp: Proportion of freeway DVMT affected by incident management deployment.
- SignalCoordDeployProp: Proportion of arterial DVMT affected by signal coordination deployment.
- AccessMgtDeployProp: Proportion of arterial DVMT affected by access management deployment.
- OtherFwyOpsDeployProp: Proportion of freeway DVMT affected by other user-defined freeway operations measures.
- OtherArtOpsDeployProp: Proportion of arterial DVMT affected by other user-defined arterial operations measures.

Table VE-16: MAREA OPERATIONS DEPLOYMENT INPUT - SCENARIOS

				PREFERRED				
	AUTHORITY	2005	2010	2020	2035	2045	2035	2045
RampMeterDeployProp	State	0%	0%	0%	50%	50%	95%	95%
IncidentMgtDeployProp	State	30%	40%	60%	90%	90%	95%	95%
SignalCoordDeployProp	Local	32%	42%	52%	73%	73%	80%	80%
AccessMgtDeployProp	Local	30%	40%	42%	50%	50%	50%	50%
OtherFwyOpsDeployProp	na	0%	0%	0%	0%	0%	0%	0%
OtherArtOpsDeployProp	na	0%	0%	0%	0%	0%	0%	0%

Parking

The parking input makes assumptions about residential parking supply, public parking costs and proportion of workers affected by parking programs (including cash-out program participation) and non-work trips affected by parking policies in each Bzone.

The 2015 CLSP did not model residential parking, nor was this mentioned in the CLSP report. As such, residential parking inputs will be held constant from the CLSP Reference scenario. Note: CFEC Climate Friendly Area changes to parking minimums are not currently reflected in the CLSP Reference or Preferred scenario.

The non-residential parking policies include the following:

- PkgSpacesPerSFDU/MFDU/GQ: Parking spaces available per single family, multifamily, or group quarters dwelling unit.
- PropNonWrkTripPay: Proportion of non-work trips that require paid parking.
- PropWkrPay: Proportion of workers who pay for parking.
- PropCashOut: Proportion of workers paying for parking in a cash-out-buy-back program.
- PkgCost: Average daily cost for long-term parking.

The VE-RSPM Preferred scenario input values assume the CLSP level of parking only in the specific Bzone locations with paid parking in the regional travel model future year RTP scenario (7 Bzones across all model years, see figure below). These areas with paid parking remain consistent across all model years. The parking fee at the smaller VE Bzones were set to reflect population density with the weighted average matching the CLSP values by jurisdiction.

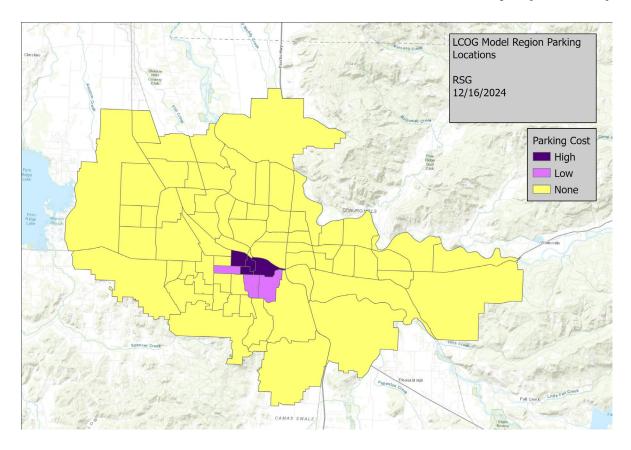
Proposed VE input: Paid parking locations remain the same in both the Preferred and Reference scenarios. The spaces per residential unit also remain unchanged between the scenarios. The Preferred scenario includes a greater number of trips and workers that will be required to pay for parking. The Preferred scenario also increases the cost of parking to the levels used in the 2015 CLSP Preferred scenario.

Table VE-17: PARKING INPUT SUMMARY⁴⁵

		RE	FERENCE			PREF	PREFERRED	
	2005	2010	2020	2035	2045	2035	2045	
PkgSpacesPerSFDU	4	4	4	4	4	4	4	
PkgSpacesPerMFDU	2	2	2	2	2	2	2	
PkgSpacesPerGQ	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
PropNonWrkTripPay	0.2%	0.4%	0.4%	0.6%	0.6%	1.7%	1.7%	
PropWkrPay	0.4%	0.4%	0.4%	0.7%	0.7%	2.1%	2.1%	
PropCashOut	0.0%	0.0%	0.0%	0.1%	0.3%	2.6%	2.6%	
Avg PkgCost.2010 (all Bzones)	\$0.26	\$0.29	\$0.29	\$0.33	\$0.33	\$0.43	\$0.43	
Avg PkgCost.2010	\$2.68	\$2.97	\$2.97	\$3.01	\$3.01	\$3.91	\$3.91	
Low price (2010\$)	\$2.25	\$2.60	\$2.60	\$2.60	\$2.60	\$2.63	\$2.63	
High price (2010\$)	\$3.00	\$3.25	\$3.25	\$3.25	\$3.25	\$4.69	\$4.69	

Figure VE-419: PARKING LOCATION MAP (ALL YEARS) - Reference and Preferred scenarios

 $^{^{\}rm 45}$ Note: A factor of 1.32 can be applied to convert from 2010 dollars to 2020 dollars.



Car service

Car Service inputs in the 2015 CLSP are quite different from VisionEval. Car Service represents ride hailing or car sharing services and was not an action used in the CLSP scenarios. Given this, VE-State Reference car service assumptions for Eugene-Springfield will be used in both the Reference and Preferred scenarios.

CAR SERVICE COVERAGE

Car services in VisionEval and the CLSP are inputs that are intended to proxy the availability of ride hailing or car sharing services. Two levels of car service are modeled; "low" related to areas with less frequent car services available and would be unlikely for a household to rely on these services at the same level as a private household vehicle. "High" services are the level of car services which are widely available and could largely suffice to replace a privately owned vehicle if the price point and access are suitable.

This input represents the level of car service available to a household living in a Bzone. A methodology of estimating which Bzones have "low" vs "high" car service is based on the 'user density' of the zone. This accounts for the employment and population per acre. If the Bzone contains a user density in the 70th percentile or higher, then it is assigned "High" car service. All other Bzones are assigned "Low" car service.

Car service fleets are a new input to VisionEval. The Reference powertrain mix, taken from VE-State adopted plans assume a lower share of combustion engine (ICE) vehicles than found in the broader all passenger vehicle fleet, based on 2020 data from City of Portland "For Hire" registered vehicles. VE-State STS scenario assumes a greener fleet with the imposition of city regulation of these vehicles, such as California's <u>Clean Miles Standard</u>. This cleaner fleet local action, beyond state actions, could reflect the CLSP Preferred scenario's <u>Strategy for Fleet and fuels</u>: <u>Invest in existing plans</u>, which includes support for state actions for low emissions vehicles and fuels.

Proposed VE input: Use VE-State Reference car service coverage and car service fleet for Eugene-Springfield, in both the Reference and Preferred scenarios. <u>Alternatively</u>, the jurisdictions could commit to regulation of TNCs and assume the cleaner fleet of car service vehicles as included in the VE-State STS shown in Table VE-19.

Table VE-18: NUMBER OF BZONES BY CAR SERVICE LEVEL - REFERENCE AND PREFERRED SCENARIOS

Tubio VE 2011	TOMBER OF BEON	LO DI GIII OLIVIO	DE ELVEL - REI ERENOE AND I REI ERRED OOL	
YEAR	LOW CAR SERVICE BZONES	HIGH CAR SERVICE BZONES	PERCENT OF HOUSEHOLDS WITH HIGH CAR SERVICE	PERCENT OF EMPLOYEES WITH HIGH CAR SERVICE
	DZUNE3	BZUNES		
2005	56	16	13%	48%
2010	53	19	17%	56%
2020	52	20	18%	55%
2035	48	24	23%	59%
	70	24	23/0	3370
2045	43	29	29%	65%

Figure VE-520: CAR SERVICE AVAILABILITY BY BZONE - SHOWN FOR THE BASE YEAR 2020

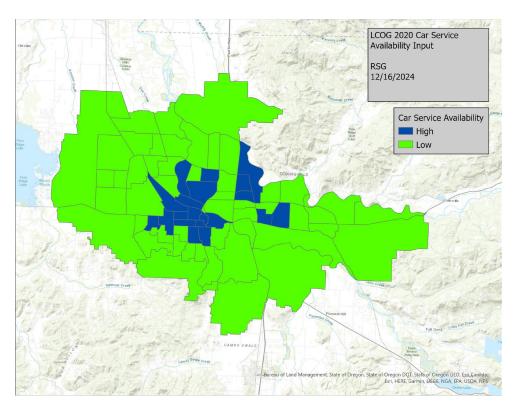
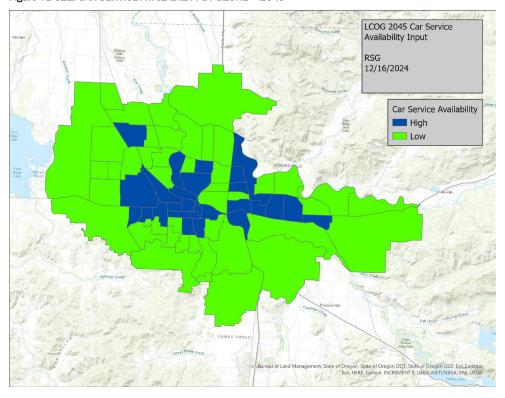


Figure VE-621: CAR SERVICE AVAILABILITY BY BZONE - 2045



Car service powertrain input naming conventions are consistent with those used for transit powertrains.

Table VE-19: CAR SERVICE FLEET - REFERENCE AND POTENTIAL PREFERRED SCENARIOS

	REFERENCE											
Year	2005	2010	2020	2035	2045	2045						
CarSvcAutoPropIcev	100%	98%	81%	39%	40%	6%						
CarSvcAutoPropHev	0%	3%	17%	30%	34%	55%						
CarSvcAutoPropBev	0%	0%	3%	31%	26%	39%						
CarSvcLtTrkProplcev	100%	100%	95%	69%	58%	28%						
CarSvcLtTrkPropHev	0%	1%	4%	19%	24%	45%						
CarSvcLtTrkPropBev	0%	0%	1%	12%	18%	27%						

Active Transportation, Single Occupant Vehicle Diversion to Active Modes

Inputs on Active transportation policies in VisionEval and the 2015 CLSP are assumptions on the shift of short trips (less than 20 miles round trip) from single occupancy vehicle to active modes.

The Preferred scenario keeps the 2015 CLSP values and disaggregates to smaller zones based on 2010 household survey patterns. The table below shows the population-weighted regional average for the Preferred scenario alongside the CLSP Reference scenario assumptions.

Proposed VE input: Use the values identified in the CLSP for the SOV diversion, as shown in the Preferred column of the table below.

Table VE-20: SHORT TRIP SOV DIVERSION - REFERENCE AND PREFERRED SCENARIOS (2015 CLSP)⁴⁶

YEAR	REFERENCE	PREFERRED
2005	4%	4%
2010	6%	6%
2020	11%	11%
2035	19%	20%
2045	19%	20%
2043	1370	2070

⁴⁶ GreenSTEP values indicated a 38% SOV diversion, which was determined to be excessive relative to other VisionEval models used in Oregon.

Travel Demand Management and Teleworking

Travel demand management policies and actions are a strong tool for changing commute behavior and lowering VMT. Two types are accounted for in VE models; employer (Eco) based policies and households (Individualized Marketing Programs, Imp) based policies.

The Reference Scenario uses VE-State reference participation rates, based on MPO survey responses in the 2018 Monitoring Report, specific to the Central Lane MPO.⁴⁷ The 2015 CLSP share of household and workers participating in 2035 were used directly for the Preferred scenario and extended to 2045. The Reference and Preferred scenario inputs are shown below.

Proposed VE input: Use VE-State Adopted Plans values for CLSP Reference scenario. Use the CLSP scenario inputs for Preferred scenario.

This input uses the following variables:

- EcoProp: Proportion of workers who participate in a strong employee commute options program.
- ImpProp: Proportion of households who participate in a strong individualized marketing program.

Table VE-21: PARTICIPATION IN TDM PROGRAMS - REFERENCE AND PREFERRED SCENARIOS48

	REFERENC	E SCENARIO	PREFERRE	D SCENARIO
	EcoProp	ImpProp	EcoProp	ImpProp
Year	(%Workers)	(%Households)	(%Workers)	(%Households)
2005	2.4%	0.1%	3.0%	0.1%
2010	2.9%	0.6%	2.5%	0.5%
2020	3.8%	1.7%	25.5%	24.3%
2035	5.3%	3.3%	60.0%	60.0%
2045	6.2%	4.3%	60.0%	60.0%

Teleworking is another component of travel demand management. The rate of teleworking was assumed to be fixed between the Reference and the Preferred scenario. Given the dramatic increase in the number of households participating in either the worker or the home based TDM programs it was determined it might be duplicative to also increase the rate of teleworking. The 2022-year ACS Census data indicate around 13% of workers are Working From Home. Note, this includes those who answered, "usually" work from home and on any given day there may be a slightly higher rate. That compares to around 5% who worked from home back in the year 2005. The LCOG Reference and Preferred scenario both use the ACS 13% Work From Home as the Teleworking rate in the inputs for the future years.

Preferred Scenario Inputs

⁴⁷ The Monitoring Report was specific to each MPOs in updating VE-State.

⁴⁸ TDM programs were reduced by 33% in future years to bring the model closer to achieving 30% DVMT reduction.

Target Rule Results

The LCOG Preferred scenario—using the VE-RSPM input assumptions as recommended above--is anticipated to achieve the OAR GHG reduction target for 2045 with a reduction of 25%. The Reference scenario is not expected to achieve the necessary VMT reduction. This indicates that the additional state and local actions included in the Preferred Scenario continue to provide options and incentives to reduce per capita vehicle travel and are necessary to achieve the OARs.

Table VE-22: OAR CFEC VMT per Capita Targets

TODIO TELE	ELI OFAT OF LO TIME POF OU	pita raigoto				
	REFERENCE SC	ENARIO	PREFERRED	SCENARIO		
Year	DVMT Per Capita Percent Change from 2005		DVMT Per Capita	Percent Change from 2005		
2005	21.1	-	21.1	-		
2020	19.6	-7.1%	19.6	-7.1%		
2045	18.7	-11.4%	15.7	-25.6%		

Summary Tables

Figure VE-722: Reference Scenario Summary Table

Category	Input		2020			2045		70 CHAIL	ge 2045 (fro	/III Z-0Z-0)	vivi I a	rget Rule (Mod	acrivegion)
													Percent Char
	I	Eugene	Springfield	Coburg	Eugene	Springfield	Coburg	Eugene	Springfield	Coburg		DVMT Per Capita	From 2005
	Population Jobs	192,033	75,562 33.611	2,345	239,493 123.084	88,615 48,917	3,074	25% 26%	17% 46%	31% 116%	2005 2020	21.1 19.6	
	Retail Employment	97,876 14.137	4,228	1,920 291	123,084	48,917 5.122	4,138 419	26% 18%	21%	116%	2020		
	Service Employment	48,612	16,490	521	61,269	26,513	1,931	26%	61%	271%	2040	10.7	
Regional	Households (HHs) total (excluding GQ)	81,481	29,893	906	94,724	34,996	1,184	16%	17%	31%			
Context	Average household size	2.4	2.5	2.6	2.5	2.5	2.6	7%	0%	0%			
Context	% single-person households (excludes GQs)	31%	28%	13%	33%	31%	10%	8%	14%	-26%			
	DVMT per capita Average annual per capita income (in 2020 dollars)	19.6	16.1	22.1	16.8	20.2	22.2	-14%	26%	0%			
	Average annual per capita income (in 2020 dollars)	\$33,902	\$26,243	\$35,886	\$42,676	\$33,035	\$45,173	26%	26%	26%			
	Annual Growth Rate in Real Income	-	-	-	-	-	-	0.96%	0.96%	0.96%			
	Single Family units	47,658	18,776	788	52,497	20,948	1,079	10%	12%	37%			
	Single Family units (% of Total HHs)	58%	63%	87%	55%	60%	91%	-5%	-5%	5%			
	Multi-family units	33,823	11,117	118	42,227	14,048	105	25%	26%	-11%			
	Multi-family units (% of Total HHs)	42% 8%	37% 5%	13% 2%	45% 16%	40%	9% 3%	7% 8%	8% 0%	-32% 0%			
Land Use	Share of HH's in urban mixed use areas* Share of workers subject to parking fee	1.9%	0.0%	0.0%	2.1%	0.0%	0.0%	0.2%	0.0%	0.0%			
Luna 050	Share of non-work trips subject to parking fee	0.6%	0.0%	0.0%	0.8%	0.0%	0.0%	0.2%	0.0%	0.0%			
	Avg. daily parking fee (in zones that charge in 2020	0.070		0.070	0.070	0.070	0.070	0.270	0.070	0.070			
	dollars)	\$3.92	\$0.00	\$0.00	\$3.97	\$0.00	\$0.00	1%	0%	0%			
	Avg. daily parking fee (across all zones in 2020	00.50	***	***	00.00	***	00.00	400/	00/	20/			
	dollars) Overall Costs to Drive (effective operational per	\$0.52	\$0.00	\$0.00	\$0.60	\$0.00	\$0.00	16%	0%	0%			
	mile costs, 2020 dollars)*	\$0.46	\$0.59	\$0.35	\$0.52	\$0.41	\$0.33	14%	-30%	-7%			
	Electricity price per kilowatt-hour (in 2020 dollars)	,	\$0.17	41.50	, <u>.</u>	\$0.19			8%	. 70			
	State annual vehicle fees such as inspections,												
	registrations, etc. (in 2020 dollars)		\$135			\$138			2%				
Pricing	Fuel price without taxes per gallon (in 2020 dollars)		\$2.42			\$3.50			44%				
	Federal & State Gas taxes (dollar per gallon in 2020		φ2.42			φ3.30			44 /0				
	dollars)	\$0.54	\$0.54	\$0.61	\$0.35	\$0.35	\$0.41	-36%	-36%	-32%			
	Pay as you drive (PAYD) insurance (% of HHs												
	participating)		1.0%			4.0%		,	300%				
	Share of single occupant vehicle trips diverted to bicycles and active modes	13.3%	6.4%	4.7%	17.5%	10.8%	7.9%	4%	4%	3%			
	Transit service miles (fixed route in-service miles)	13.370	0.470	4.770	17.570	10.676	1.570	470	470	370			
	(bus and BRT)		3,064,216			4,446,951			45%				
	Transit (bus equivalent) Annual Revenue Miles		4,087,176			6,461,464			58%				
	Bus and BRT (bus equivalent) per capita		15.1			19.5			29%				
	Share of Workers covered by transportation	3.3%	1.9%	0.0%	6.6%	4.5%	0.0%	3%	3%	0%			
ransportation	demand management programs Share of Households in individualized marketing	3.3%	1.9%	0.0%	6.6%	4.5%	0.0%	3%	3%	0%			
Options	programs	1.1%	0.7%	0.0%	4.3%	2.8%	0.0%	3%	2%	0%			
Options	% of HHs with High Car Service Available	19%	17%	0%	32%	24%	0%	13%	7%	0%			
	% of Workers Full Time Commuting (no												
	teleworking)	91%	91%	90%	87%	87%	88%	-4%	-4%	-3%			
	% of Workers Part Time Teleworking (1-4 days a week)	7%	7%	7%	10%	10%	9%	3%	3%	2%			
	% of Workers Full Time Teleworking (5 days a	1 /0	1 70	1 /0	1076	1076	370	370	376	2.70			
	week)	2%	2%	2%	3%	3%	3%						
	% of Workers Full or Part Time Teleworking	9%	9%	10%	13%	13%	12%	4%	4%	3%			
	Lane Miles												
	Freeway		145			161			11%				
	Arterial Freeway Lane Miles per 1k pop		419 0.54			441 0.49		1	5% -9%				
04	Arterial Lane Miles per 1k pop.		1.55			1.33		1	-9%				
System	Freeway Ramp Metering coverage (State Authority)							l					
Operations			0%			50%			0%				
	Freeway Incident Response coverage (State		000/			0001		l	E00/				
	Authority) Arterial Signal Coordination coverage		60% 52%			90% 81%		1	50% 56%				
	Arterial Signal Coordination coverage Arterial Access Management coverage		52% 42%			50%		1	19%				
	Effective Household MPG	26.7	27.7	25.9	54.9	54.6	55.6	106%	97%	114%			
	Share of HH Vehicles which are non-ICE (HEV +		21.1	20.0	0.110		55.0		3770				
	PHEV+EV)	4.0%	3.9%	3.7%	91.2%	91.0%	92.9%	2199%	2218%	2382%			
	Bus fuels												
	Transit Gasoline Gallons Equivalent		2,049			2,076			1%				
	Diesel CNG		82% 0%			82% 0%		1	0%				
	Transit Biofuels		U76		1	U76			U7/6				
Vehicles &	Ethanol Proportion of Gasoline Vehicles												
Fuels	· ·		11%			11%			0%				
	Biodiesel Proprotion of Diesel Vehicles		43%			43%			0%				
	RNG		0%			0%			0%				
	Bus Vehicle Mix		020/			0401			400/				
	Internal Combustion Electric		93% 7%			81% 19%		1	-13% 173%				
	% of HHs with EV supply available (total HHs)	88%	7% 88%	88%	95%	19% 95%	95%	8%	1/3%	8%			
	% of Multi-family HHs with EV supply available	1.6%	1.6%	1.6%	8.6%	8.6%	8.6%	438%	438%	438%			

Figure VE-823: Preferred Scenario Summary Table

Regional Context Sale Pricing Pricing Fed Fed Pricing Fed Pricing Fed Pricing Fed Pricing Fed Pricing Fed Fed Pricing Fed Pric	Retail Employment Service Employment useholds (H+B) total (exclusing GO) werape household size single-person households (exclusing GG) with per capita with per capita werape annual per capita income (in 2020 dollars) insul Growth Ratle in Real income rigile Famity units (if to Total H+B) alti-famity units (if to Total H+B) alti-famity units (if to Total H+B) are of H+B in units of the one war of H+B in units of the one war of H+B in units growth of the one you have been supported to parting fee ware of non-work trips subject to parting fee you daily parking fee (air zones that charge in 2020 latars) growth program (and you capital program (2020 latars) growth program (2020)	Eugene 192,033 97,876 14,137 48,612 81,481 24,4 31% 19,2 \$33,902 47,658 83,823 42% 8% 0.6% \$4,37 \$0.02 \$0.45	\$pringfield 75.562 33.611 4.228 16.490 29.893 15.49 15.8 \$26.243 18.776 63% 11.117 37% 5% 0.0% \$0.00 \$0.00 \$0.00	Coburg 2,345 1,920 2911 521 996 2.6 2.6 2.7 13% 21.7 \$35,886 - 788 87% 118 13% 2% 0.0% \$0.00 \$0.00	Region 269,940 133,407 18,656 65,623 112280 24% 18.3 \$32,010 - 67,222 60% 45058 40% 7% 45058 40% 34,044	Eugene 239,493 123,084 16,669 61,269 94,724 2,55 33% 13.8 \$42,676	Springfield 88,615 48,917 5,122 26,513 34,996 2,5 31% 16,9 \$33,035	Coburg 3,074 4,138 419 1,931 1,184 2,6 10% 18,9 \$45,173 1,079 91% 105 99% 33% 0,0%	Region 331,182 176,139 22,210 89,713 130,904 2.6 25% 14.7 \$40,295 - 74,524 57% 56,380 43% 5,6%	25% 26% 18% 26% 16% 7% 8% -28% 26% 0.96% 10% -5% 25% 7% 8%	17% 46% 46% 521% 61% 17% 61% 77% 26% 0.96% 12% 5% 26% 26% 8% 8% 67% 67% 6	Coburg 31% 116% 44% 271% 31% 0% -26% -13% 100.96% 100.96% 5% -111% -32% 0%6	Region 23% 32% 19% 37% 17% 2% 45% -20% 20.6% 11% -5% 25% 7% 6%	Year 2005 2010 2020 2035 2045	DVMT Per Capita 21.1 17.5 19.6 17.9 15.7	5 -1 6 -
Regional Context Sale Pricing Pricing Fed Fed Pricing Fed Pricing Fed Pricing Fed Pricing Fed Pricing Fed Fed Pricing Fed Pric	be Retail Employment Service S	192,033 97,876 14,137 48,612 81,481 2.4 31% 19.2 \$33,902 47,658 58% 33,823 42% 8% 0.6% \$4.37 \$0.02	75.562 33.611 4.228 16.440 29.893 2.55 28% 15.8 \$26.243 - 18,776 6.3% 5.5% 0.0% \$0.00 \$0.00	2,345 1,920 291 521 906 2,6 2,6 13% 21.7 \$35,886 - 788 87% 118 13% 0,0% 0,0% \$0,000	269,940 133,407 18,656 65,623 112280 2,5 2,4% 18.3 \$32,010 - 67,222 60% 45058 40% 7% 1.4% 0.4%	239,493 123,084 16,669 61,289 61,289 94,724 2,55 33% 13.8 \$42,676 - 52,497 55% 42,227 45% 8,0% 3,2%	88,615 48,917 5,122 26,513 34,996 2.5 31% 16.9 \$33,035 20,948 60% 14,048 40% 5%	3,074 4,138 419 1,931 1,184 2.6 10% 18.9 \$45,173 -1,079 91% 105 9% 3% 0.0%	331,182 176,139 22,210 89,713 130,904 2.6 25% 14.7 \$40,295 - 74,524 57% 56,380 43%	25% 26% 18% 26% 16% 7% 8% -28% 26% 0.96% 10% -5% 25% 7% 8%	17% 46% 46% 521% 61% 17% 61% 77% 26% 0.96% 12% 5% 26% 26% 8% 8% 67% 67% 6	31% 116% 44% 271% 31% 0% -26% -13% 26% 100.96% 5% -11% 5% -11% 0%	23% 32% 19% 37% 17% 2% 4% -20% 26% 20.96% 11% -5% 25% 7% 6%	2005 2010 2020 2035	21.1 17.5 19.6 17.9	- -
Regional Context Sale Pricing Pricing Fed Fed Pricing Fed Pricing Fed Pricing Fed Pricing Fed Pricing Fed Fed Pricing Fed Pric	be Retail Employment Service S	97,876 14,137 48,612 81,481 2,4 31% 19,2 \$33,902 47,658 58% 33,823 42% 6,06% 0,6% \$4,37 \$0,02	33,811 4,228 16,490 29,893 2,5 28% 15,8 \$26,243 18,776 63% 11,117 37% 6,00% 0,00% \$0,000	1,920 291 521 906 2.6.6 13% 21.7 \$35,886 87% 118 13% 2% 0.0% \$0.00	133,407 18,656 65,623 112280 2.5 24% 18.3 \$32,010 - 67,222 60% 45058 450	123,084 16,669 61,269 94,724 2.5 33% 13.8 \$42,676 52,497 55% 42,227 45% 16% 8.0% 3.2%	48,917 5,122 26,513 34,996 2.5 31% 16.9 \$33,035 20,948 60% 14,048 40% 5% 0.0%	4,138 419 1,931 1,184 2.6 10% 18.9 \$45,173 - 1,079 91% 105 9% 3% 0.0%	176,139 22,210 89,713 130,904 2.6 25% 14.7 \$40,295 - 74,524 57% 56,380 43%	26% 18% 26% 16% 7% 8% -28% 26% 0.96% 10% -5% 25% 8%	46% 21% 61% 17% 0% 0% 14% 7% 26% 0.96% 1.2% 1.2% 26% 83% 83%	116% 44% 271% 0% -26% -13% 26% 100.96% 37% 5% -11% -32% 0%	32% 19% 37% 17% 2% 4% -20% 26% 200.96% 11% -5% 25% 7% 6%	2010 2020 2035	17.5 19.6 17.9	5 5
Context Support Suppor	Service Employment usueholds (Hal) Journal (Service) and usueholds (Hal) Journal (Service) and usueholds (Service) and usuehol	14,137 48,612 81,481 2.4 31% 19.2 \$33,902 47,658 58% 33,823 42% 8% 1.9% 0.6% \$4.37 \$0.02	16,490 29,893 2,2,5 26% 15,8 \$26,243 	291 5211 906 2.6 13% 21.7 \$35,886 - 788 87% 118 13% 2% 0.0% \$0.00	18,656 65,623 112280 2.5 2.4% 18.3 \$32,010 - 67,222 60% 45058 40% 7% 1.4% 0.4%	16,669 61,269 94,724 2.5 33% 13.8 \$42,676 - 52,497 55% 42,227 45% 16% 8.0% 3.2%	5,122 26,513 34,996 2.5 31% 16.9 \$33,035 - 20,948 60% 14,048 40% 5% 0.0%	419 1,931 1,184 2.6 10% 18.9 \$45,173 - 1,079 91% 105 9% 3% 0.0%	22,210 89,713 130,904 2.6 25% 14.7 \$40,295 - 74,524 57% 56,380 43% 13%	26% 16% 7% 8% -28% 26% 0.96% 10% -5% 25% 7% 8%	61% 17% 0% 0% 14% 7% 26% 0.96% 12% -5% 26% 8% 0%	271% 31% 0% -26% -13% 26% 100.96% 37% 5% -11% -32% 0%	19% 37% 17% 2% 4% -20% 26% 200.96% 11% -5% 25% 7% 6%	2020 2035	19.6 17.9	9
Context Support Suppor	suseholds (HHs) Iotal (excluding GO) everage household (excluding GO) everage household (excluding GO) everage household (excluding GO) everage annual per capita income (in 2020 dollars) insul Growth Rate in Real income rigile Family units (if of Total HHs) and Historial youth (if of Total HHs) and Historial youth (if of Total HHs) and Historial youth (if of Total Hhs) are of HHs in Justice in House in Justice in Historial youth (if of Total Hhs) are of HHs in Justice in House in Justice in Historial youth (if of Total Hhs) are of HHs in Justice in House in Historial youth (if of Total Hhs) are of HHs in Justice in Has in Historial are of HHs in Justice in Has in Has in Has in Has are of HHs in Justice in Has in Has in Has are of Hhs in Justice in Has in Has are of Historial youth (if of Total Hhs) are in Has in Has in Has in Has are of Historial to David In Has are of Historial Youth (if of Total Hhs) are in Has in Has in Has are of Hs in Has in Has in Has are in Has in Has in Has are in Hs are in Has are in Hs are of single occupant whiche lips diverted to	81,481 2.4 31% 19.2 \$33,902 	29,893 2.5 28% 15.8 \$26,243 18,776 63% 0.0% 0.0% \$0.00 \$0.00 \$0.59	906 2.6 13% 21.7 \$35,886 788 87% 118 13% 0.0% 0.0% \$0.00	112280 2.5 24% 18.3 \$32,010 - 67,222 60% 45058 40% 7.4% 0.4%	94,724 2.5 33% 13.8 \$42,676 - 52,497 55% 42,227 45% 16% 8.0%	34,996 2.5 31% 16.9 \$33,035 - 20,948 60% 14,048 40% 5% 0.0%	1,184 2.6 10% 18.9 \$45,173 - 1,079 91% 105 9% 3% 0.0%	130,904 2.6 25% 14.7 \$40,295 - 74,524 57% 56,380 43% 13%	16% 7% 8% -28% 26% 0.96% 10% -5% 25% 7% 8%	17% 0% 14% 7% 26% 0.96% 12% -5% 26% 8% 00%	31% 0% -26% -13% 26% 100.96% 37% 5% -11% -32% 0%	17% 2% 4% -20% 26% 200.96% 11% -5% 25% 7% 6%			
Context Support Suppor	evrage household size single-person household (excludes GQs) MIT per capital recapital	2.4 31% 19.2 \$33,902 47,658 58% 33,823 42% 8% 1.9% 0.6% \$4.37 \$0.02	2.5 28% 15.8 \$26,243 - 18,776 63% 11,117 37% 5% 0.0% \$0.00 \$0.00 \$0.59	2.6 13% 21.7 \$35,886 788 87% 118 13% 2% 0.0% \$0.00 \$0.00	2.5 24% 18.3 \$32,010 - 67,222 60% 45058 40% 7% 1.4% 0.4%	2.5 33% 13.8 \$42,676 52,497 55% 42,227 45% 16% 8.0%	2.5 31% 16.9 \$33,035 - 20,948 60% 14,048 40% 5% 0.0%	2.6 10% 18.9 \$45,173 - 1,079 91% 105 9% 0.0%	2.6 25% 14.7 \$40,295 - 74,524 57% 56,380 43% 13%	7% 8% -28% 26% 0.96% 10% -5% -5% 7% 8%	0% 14% 7% 26% 0.96% 12% -5% 26% 8% 0%	0% -26% -13% 26% 100.96% 37% 5% -11% -32% 0%	2% 4% -20% 26% 200.96% 11% -5% 25% 7% 6%	2045	15.7	
Context Page 19 Sign 1	single-person households (excludes QGs) M/MT per captal writing except an income (in 2020 dollars) insual Growth Rate in Real income ingle Family units ingle Family units ingle Family units (is of Total H+s) alt-family units (is of Total H+s) alt-family units (is of Total H+s) are of H+s in unbam initiated use areas are of H+s in unbam initiated areas are of H+s in unbam initiated areas area	31% 19.2 \$33,902 47,658 58% 33,823 42% 8% 0.6% \$4.37 \$0.02	28% 15.8 \$26,243 	13% 21.7 \$35,886	24% 18.3 \$32,010 - 67,222 60% 45058 40% 7% 1.4% 0.4%	33% 13.8 \$42,676 -52,497 55% 42,227 45% 16% 8.0% 3.2%	31% 16.9 \$33,035 -20,948 60% 14,048 40% 5% 0.0%	10% 18.9 \$45,173 - 1,079 91% 105 9% 3% 0.0%	25% 14.7 \$40,295 - 74,524 57% 56,380 43% 13%	8% -28% 26% 0.96% 10% -5% 25% 7% 8%	14% 7% 26% 0.96% 12% -5% 26% 8% 0%	-26% -13% 26% 100.96% 37% 5% -11% -32% 0%	4% -20% 26% 200.96% 11% -5% 25% 7% 6%			
Pricing Fede 2020 Pay a participant Shara	MMT per capital were werge annual per capita income (in 2020 dollars) nrual Growth Rate in Real Income ngile Famly units inglie Famly units inglie Famly units inglie Famly units il-family units dit-family units dit-family units (% of Total H+is) dit-family units dit-family units (% of Total H+is) are of H+is in urban mixed use areas* area of workers subject to parking fee pare of non-work trips subject to parking fee pare of non-work trips subject to parking fee go daily parking fee (in zones that charge in 2020 fatrs) go, daily parking fee (in zones that charge in 2020 fatrs) go daily parking fee (across all zones in 2020 fatrs) feering fee (in zones that charge in 2020 fatrs) go daily parking fee (across all zones in 2020 fatrs) go daily parking fee (across all zones in 2020 fatrs) go daily parking fee (across all zones in 2020 fatrs) go daily parking fee (across all zones in 2020 fatrs) go daily parking fee (across all zones in 2020 fatrs) go daily parking fee (across all zones in 2020 fatrs) go daily parking fee (across all zones in 2020 fatrs) go daily parking fee (across all zones in 2020 fatrs) go daily parking fee (across all zones in 2020 fatrs) go daily parking fee (across all zones in 2020 fatrs) go daily parking fee (across all zones in 2020 fatrs) go daily parking fee go daily parking go dai	19.2 \$33,902 47,658 58% 33,823 42% 8% 1.9% 0.6% \$4.37 \$0.02	15.8 \$26,243 	21.7 \$35,886 - 788 87% 118 13% 2% 0.0% 0.0% \$0.00 \$0.00	18.3 \$32,010 - 67,222 60% 45058 40% 7% 1.4% 0.4%	13.8 \$42,676 - 52,497 55% 42,227 45% 16% 8.0% 3.2%	16.9 \$33,035 - 20,948 60% 14,048 40% 5% 0.0%	18.9 \$45,173 - 1,079 91% 105 9% 3% 0.0%	14.7 \$40,295 74,524 57% 56,380 43% 13%	-28% 26% 0.96% 10% -5% 25% 7% 8%	7% 26% 0.96% 12% -5% 26% 8% 0%	-13% 26% 100.96% 37% 5% -11% -32% 0%	-20% 26% 200.96% 11% -5% 25% 7% 6%			
Anera Annua	verage annual per capital income (in 2020 dollars) in rould Growth Rate in Real income ingle Family units (in Got Total Hes) internally units (if Got Total Hes) internally units (if Got Total Hes) internal which was of Her's in urban mixed use areas area of Her's in urban mixed use areas (in executive parting fee area of nerview this great supporting the (in zones that charge in 2020 dates) of the parting fee (in zones that charge in 2020 dates) areas (in executive price per Herichicip rice per Herichicip rice per Herichicip rice per Howard Hour (in 2020 dollars) area annual vehicle fees such as impections, gistrations, etc. (in 2020 dollars) area price without taxes per gallon (in 2020 dollars) area in the parting the per gallon (in 2020 dollars) area of segles occupant vehicle fixed developed (in 2020 dollars) area of singles occupant vehicle fixed diverted to	\$33,902 	\$26,243	\$35,886 -788 87% 118 13% 2% 0.0% 0.0% \$0.00 \$0.00	\$32,010 - 67,222 60% 45058 40% 7% 1.4% 0.4%	\$42,676 - 52,497 55% 42,227 45% 16% 8.0% 3.2%	\$33,035 20,948 60% 14,048 40% 5% 0.0%	\$45,173 - 1,079 91% 105 9% 3% 0.0%	\$40,295 - 74,524 57% 56,380 43% 13%	26% 0.96% 10% -5% 25% 7% 8%	26% 0.96% 12% -5% 26% 8% 0%	26% 100.96% 37% 5% -11% -32% 0%	26% 200.96% 11% -5% 25% 7% 6%			
Annu Annu Annu Annu Annu Annu Annu Annu	nrual Growth Rate in Real income rigile Famly units rigile Famly units rigile Famly units (% of Total H+is) dit-family units dit-family dispersion dispersi	47,658 58% 33,823 42% 8% 0.6% \$4.37 \$0.02	18,776 63% 11,117 37% 5% 0.0% 0.0% \$0.00 \$0.00	788 87% 118 13% 2% 0.0% 0.0% \$0.00	- 67,222 60% 45058 40% 7% 1.4% 0.4%	52,497 55% 42,227 45% 16% 8.0% 3.2%	20,948 60% 14,048 40% 5% 0.0%	- 1,079 91% 105 9% 3% 0.0%	74,524 57% 56,380 43% 13%	0.96% 10% -5% 25% 7% 8%	0.96% 12% -5% 26% 8% 0%	100.96% 37% 5% -11% -32% 0%	200.96% 11% -5% 25% 7% 6%			
Segli Segli Multi-	ingle Family units ingle Family units ingle Family units diff-family dif	47,658 58% 33,823 42% 8% 0.6% \$4.37 \$0.02	18,776 63% 11,117 37% 5% 0.0% 0.0% \$0.00 \$0.00	788 87% 118 13% 2% 0.0% 0.0% \$0.00	- 67,222 60% 45058 40% 7% 1.4% 0.4%	52,497 55% 42,227 45% 16% 8.0% 3.2%	20,948 60% 14,048 40% 5% 0.0%	- 1,079 91% 105 9% 3% 0.0%	74,524 57% 56,380 43% 13%	10% -5% 25% 7% 8%	12% -5% 26% 8% 0%	37% 5% -11% -32% 0%	11% -5% 25% 7% 6%			
Segli Segli Multi-	ingle Family units ingle Family units ingle Family units diff-family dif	58% 33,823 42% 8% 1.9% 0.6% \$4.37 \$0.02	63% 11,117 37% 5% 0.0% 0.0% \$0.00 \$0.00	87% 118 13% 2% 0.0% 0.0% \$0.00 \$0.00	60% 45058 40% 7% 1.4% 0.4%	55% 42,227 45% 16% 8.0% 3.2%	60% 14,048 40% 5% 0.0%	91% 105 9% 3% 0.0%	57% 56,380 43% 13%	-5% 25% 7% 8%	-5% 26% 8% 0%	5% -11% -32% 0%	-5% 25% 7% 6%			
Land Use Sharm Sh	ult-family units ult-family units (% of Total HHs) arare of HHs in urbain mixed use areas arare of HrHs in urbain mixed use areas are of workers subject to parking fee area of non-work trips subject to parking fee gr, daily parking fee (in zones that charge in 2020 falars) gr, daily parking fee (across all zones in 2020 falars) area (2020 dollars) etercial Costs to Drive (effective operational per te costs, 2020 dollars) eterciticip priore per floworat-hour (in 2020 dollars) etercitypic prope levidowath-hour (in 2020 dollars) etercitypic per per floworath-hour (in 2020 dollars) etercitypic per per floworath-hour (in 2020 dollars) etercitypic per per floworath-hour (in 2020 dollars) etercitypic per per floworath (in 2020 dollars) area of solidars) y as youd drive (PAVD) insurance (% of HHs etricipalenia)	33,823 42% 8% 1.9% 0.6% \$4.37 \$0.02	11,117 37% 5% 0.0% 0.0% \$0.00 \$0.00	118 13% 2% 0.0% 0.0% \$0.00 \$0.00	45058 40% 7% 1.4% 0.4% \$4.04	42,227 45% 16% 8.0% 3.2%	14,048 40% 5% 0.0%	105 9% 3% 0.0%	56,380 43% 13%	25% 7% 8%	26% 8% 0%	-11% -32% 0%	25% 7% 6%			
Land Use Shar Shar Shar Shar Shar Shar Shar Shar	ulti-family units (% of Total HHs) arra of HHs in unban mixed use areas* are of workers subject to parking fee are of workers subject to parking fee g, daily parking fee (in zones that charge in 2020 slass) g, daily parking fee (excross all zones in 2020 slass) verail Costs to Drive (effective operational per lecosts, 2020 dollars) ectricity price per kilovath-brour (in 2020 dollars) ethicity price per kilovath-brour (in 2020 dollars) gistrations, etc. (in 2020 dollars) ederal & State Ges such as impections, deral & State Ges taxes (dollar per gallon in 20 dollars) ay a syou drive (PAVD) insurance (% of HHs eticipating)	42% 8% 1.9% 0.6% \$4.37 \$0.02	37% 5% 0.0% 0.0% \$0.00 \$0.00 \$0.59	13% 2% 0.0% 0.0% \$0.00 \$0.00	40% 7% 1.4% 0.4% \$4.04	45% 16% 8.0% 3.2%	40% 5% 0.0%	9% 3% 0.0%	43% 13%	7% 8%	8% 0%	-32% 0%	7% 6%			
Land Use Shar Shar Shar Shar Aug. dolar Aug. dolar Aug. dolar Shar Shar Shar Shar Shar Shar Shar Sh	nare of HHs in urban mixed use areas." are of workers subject to parking fee earse of non-work trips subject to parking fee earse of non-work trips subject to parking fee earse of non-work trips subject to parking fee (earnoss all zones in 2020 latars) gr, daily parking fee (across all zones in 2020 latars) earnoll zosts to Drive (effective operational per les costs, 2020 obliars) etchicity prior per Newmath-burr (in 2020 dollars) eta earnual vehicle fees such as inspections, gifestations, etc. (in 2020 dollars) eta price without labors per gallon (in 2020 dollars) eta price without labors per gallon (in 2020 dollars) 2020 dollars) ya syoud drive (PAVD) insurance (% of HHs etricipaling)	8% 1.9% 0.6% \$4.37 \$0.02	5% 0.0% 0.0% \$0.00 \$0.00 \$0.59	2% 0.0% 0.0% \$0.00 \$0.00	7% 1.4% 0.4% \$4.04	16% 8.0% 3.2%	5% 0.0%	3% 0.0%	13%	8%	0%	0%	6%			
Land Use Shar Aug. Aug. dolar Aug. dolar Aug. dolar March Electronic Control of the Control of t	vare of workers subject to parking fee area of non-work firs subject to parking fee (v. daily parking fee (v. daily parking fee (in zones that charge in 2020 latas) (v. daily parking fee (across all zones in 2020 latas) (v. daily parking fee (across all zones in 2020 latas) (verail Costs to Drive (effective operational per ide costs, 2020 dollars) ectricity price per kilowath-hour (in 2020 dollars) ectricity price per kilowath-hour (in 2020 dollars) (v. daily consistentions, etc. (in 2020 dollars) (v. daily consistentions, etc. (in 2020 dollars) (v. daily consistentions, etc. (in 2020 dollars) (v. daily consistentions) (v. daily consi	1.9% 0.6% \$4.37 \$0.02 \$0.45	0.0% 0.0% \$0.00 \$0.00 \$0.59 \$0.1	0.0% 0.0% \$0.00 \$0.00	1.4% 0.4% \$4.04	8.0% 3.2%	0.0%	0.0%								
Shana Ang. dolala Ang. dolala Ang. dolala Ang. dolala Over mile Experience of the Control of the	are of non-work trips subject to parking fee g, daily parking fee (in zones that charge in 2020 lates) g, daily parking fee (across all zones in 2020 lates) g, daily parking fee (across all zones in 2020 lates) across to Drive (effective operational per le costs, 2020 oblins) ; etercispic proper per late obligation and a late armunul wehicle fees such as inspections, gistrations, etc. (in 2020 oblians) led price without lauses per galon (in 2020 oblians) led price without lauses per galon (in 2020 oblians) 2020 oblians) ya syou drive (PAVD) insurance (% of HH= tricipalanis)	0.6% \$4.37 \$0.02 \$0.45	0.0% \$0.00 \$0.00 \$0.59 \$0.1	0.0% \$0.00 \$0.00	0.4% \$4.04	3.2%				6.1%	0.0%					
Aug. dolan Aug. dolan Aug. dolan Over mine Elect Sector 2020 Per gener Stan Sorio Trant Trans Bus. Shan Continus Proprior Options	sq. daily parking fee (in zones that charge in 2020 lalars) gr. daily parking fee (across all zones in 2020 lalars) uverall Costs to Drive (effective operational per ide costs, 2020 dollars) ecticity price per kilowath-hour (in 2020 dollars) ecticity price per kilowath-hour (in 2020 dollars) gistrations, etc. (in 2020 dollars) upderal & State Gas taxes (dollar per gallon in 2020 dollars) and parking the state (dollar per gallon in 2020 dollars) y as you drive (PAYD) insurance (% of Hi-bi- tricipating).	\$4.37 \$0.02 \$0.45	\$0.00 \$0.00 \$0.59 \$0.1	\$0.00 \$0.00 \$0.34	\$4.04		0.0%	0.0%	2.4%	2.6%	0.0%	0.0%	4.2% 1.9%			
dolala Aug. dolar Aug.	alars) (g. daly parking fee (across all zones in 2020 datars) datars) (g. daly parking fee (across all zones in 2020 datars) eterosized to be considered to the consideration of the costs, 2020 dollars) eterosized to consideration of the cost	\$0.02 \$0.45	\$0.00 \$0.59 \$0.1	\$0.00 \$0.34		\$8.22		0.0%	2.470	2.070	0.076	0.0%	1.970			
Aug. dolar d	ry, daily parking fee (across all zones in 2020 aleas) uverail Costs to Drive (effective operational per lee costs, 2020 dollars)* cettricity price per kilovath-hour (n 2020 dollars) ectricity price per kilovath-hour (n 2020 dollars) epistentions, etc. (n 2020 dollars) epistentions, etc. (n 2020 dollars) episte without taxos per gallon (n 2020 dollars) dollars) ya syou drive (PAYD) insurance (% of H-lb- tricipating)	\$0.02 \$0.45	\$0.00 \$0.59 \$0.1	\$0.00 \$0.34		70	\$0.00	\$0.00	\$7.16	88%	0%	0%	77%			
dotala Over mile Elect Elect Stote regis Pricing Prici	alians) versull Coasts to Drive (effective operational per le costs, 2020 dollars) retencibly price per flowwart-hour (in 2020 dollars) esticibly price per flowwart-hour (in 2020 dollars) and annual vehicle floes such as inspections, eigestations, etc. (in 2020 dollars) eleptrice without lauses per galion (in 2020 dollars) eleptrice without lauses per galion (in 2020 dollars) and consideration such as flowers and such as f	\$0.45	\$0.59 \$0.1	\$0.34	\$0.41				4							
Pricing Fuel Feed Pricing Fuel Fuel Fuel Fuel Fuel Fuel Fuel Fuel	le costs, 2020 dollers)* certicity price per flowath-hour (in 2020 dollars) ate annual whicle frees such as inspections, gistrations, etc. (in 2020 dollars) significant such could be provided to the such as flower as State focal set such such as the such as		\$0.1			\$0.04	\$0.00	\$0.00	\$0.88	57%	0%	0%	115%			
Pricing Fede 2020 Pay to partic Shale Pricing Fede 2020 Pay to partic Shan bioy. Trans Poor Shan propries Pansportation Outions propries Pansportation propries Pansportation propries Pansportation propries Pansportation propries Pansportation Pansportati	ectricity price per kilovath-hour (in 2020 dollars) atlea annual which lefe ses uch as impections, gistrations, etc. (in 2020 dollars) gistrations, etc. (in 2020 dollars) elle price without tubes per gallor (in 2020 dollars) acideral & State Gas taxes (dollar per gallor in 2020 dollars) ava syou drive (PAYD) insurance (% of Hi-bs tricipalarin).		\$0.1													
Pricing Fuel Fuel Fuel Fuel Fuel Fuel Fuel Fuel	alta annual vehicle fees such as inspections, gistrations, etc. in 2020 dollars) let price without taxes per gallon (in 2020 dollars) detral & State Gas taxes (dollar per gallon in 20 dollars) ya syou drive (PAYD) insurance (% of HHs dricopating)	\$0.59			\$0.48	\$0.75	\$0.60	\$0.56	\$0.71	67%	2%	62%	47%			
Pricing regis Fuel 2020 Pay registric Shana bioye Trans Trans Bus s Bus s Shan dem dem dem Outions	gistrations, etc. (in 2020 dollars) sel price without taxes per gallon (in 2020 dollars) sederal & State Gas taxes (dollar per gallon in 20 dollars) sy as you drive (PAYD) insurance (% of HHs rticipaling) arare of single occupant vehicle trips diverted to	\$0.59	\$139.	\$0.18			\$0.20				8%					
Pricing Fuel Fede 2020 Pay to partic Shan bicyc Trant Trans Bus ts Bus ts dem dem Cotions Options	uel price without taxes per gallon (in 2020 dollars) aderal 8. State Gas taxes (dollar per gallon in 202 dollars) ay as you drive (PAYD) insurance (% of HHs tribcipating) are of single occupant vehicle trips diverted to	\$0.59	\$100.	\$139.88			\$53.43				-62%					
Fede 2020 Pay reprint of the particular of the p	ederal & State Gas taxes (dollar per gallon in 120 dollars) ay as you drive (PAYD) insurance (% of HHs urticipating) are of single occupant vehicle trips diverted to	\$0.59					\$03.43				-0270					
2020 Pay a partic Shan bicyc Trant Trans Bus Shan dem Cottions Options progr	i20 dollars) sy as you drive (PAYD) insurance (% of HHs urticipating) sare of single occupant vehicle trips diverted to	\$0.59	\$2.5	2			\$3.63				44%					
Pay partic Shara bicyc Trans Trans Bus e Shar dems Contions Program	ay as you drive (PAYD) insurance (% of HHs articipating) nare of single occupant vehicle trips diverted to	\$0.59														
partic Shan bicyc Trans Trans Bus s Shar dems Contions progr	articipating) nare of single occupant vehicle trips diverted to		\$0.57	\$0.60	\$0.59	\$0.71	\$0.69	\$0.72	\$0.71	20%	20%	20%	20%			
Shan bicyc Trans Trans Bus o Shan dem dem Options progr	nare of single occupant vehicle trips diverted to										99009					
bicyc Trans Trans Bus e Shan dem ansportation Options progr			1.09	%			100.0	%		_	99009	6				
Trans Trans Bus of Shan dema Shan Options		14.0%	6.7%	4.9%	12 0%	25.0%	12 0%	8.7%	21.4%	11%	5%	4%	9%			
Trans Bus of Shard dema cansportation Shard Shar	ansit service miles (fixed route in-service miles)	14.070	0.770	4.070	12.070	25.070	12.070	0.770	21.470	1170	370	470	370			
Bus of Share demanders Share Options	and dervice miles (mad read in service miles)	3,064,216			8,565,143				180%							
ransportation Share	ansit (bus equivalent) Annual Revenue Miles	4,087,176			11,726,295				187%							
ransportation Share	us equivalent per capita		7.6				17.7				134%	5				
ansportation Share Options progr	nare of Workers covered by transportation															
Options progr	emand management programs	25.5%	25.3%	25.2%	25.4%	60.0%	59.9%	59.4%	59.9%	34%	35%	34%	35%			
Options progr	nare of Households in individualized marketing	24.6%	24 1%	24 1%	24 5%	60.0%	60.0%	60.6%	60.0%	35%	36%	37%	35%			
	of HHs with High Car Service Available	19%	17%	24.1%	18%	33%	26%	00.0%	31%	15%	8%	0%	13%			
	of Workers Full Time Commuting (no	1070	1770	0.0	1070	0070	2070	0.0	0170	1070	0.0	070	1070			
	leworking)	90%	90%	90%	90%	86%	86%	87%	86%	-4%	-4%	-4%	-4%			
% of	of Workers Part Time Teleworking (1-4 days a															
week		7%	8%	8%	7%	10%	11%	10%	10%	3%	3%	2%	3%			
	of Workers Full Time Teleworking (5 days a															
week	eek) of Workers Full or Part Time Teleworking	2% 10%	2% 10%	2% 10%	2% 10%	3% 14%	3% 14%	3% 13%	3% 14%	1% 4%	1% 4%	2% 4%	1% 4%			
	or workers Full or Part Time Teleworking ine Miles	10%	10%	10%	10%	14%	14%	13%	14%	4%	4%	4%	4%			
	Freeway		145	5			155				7%					
	Arterial		419				439				5%					
	Freeway Lane Miles per 1k pop		0.2				0.23				-13%					
System	Arterial Lane Miles per 1k pop.		0.7	8			0.66				-15%					
System	eeway Ramp Metering coverage (State Authority)															
Operations			0%	•			95%				0%					
	eeway Incident Response coverage (State			,												
Autho	uthority)		609				95%				58%					
	terial Signal Coordination coverage terial Access Management coverage		529 429				95% 83%				83% 98%					
	fective Household MPG	29.2	30.4	28.4	29.3	71.1	70.2	70.6	70.6	144%	131%	149%	141%			
	nare of HH Vehicles which are non-ICE (HEV +	20.2	30.4	20.4	28.3	71.1	10.2	7 0.0	70.0	1997/0	13170	144070	1** 170			
PHE	HEV+EV)	6.1%	5.9%	6.1%	6.0%	90.7%	90.8%	92.0%	91.2%	1398%	1451%	1409%	1419%			
	us fuels															
	Transit Gasoline Gallons Equivalent		1,79				317				-82%					
	Diesel		829				1009	,			22%					
	CNG		0%				0%				0%					
Vehicles &	ansit Biofuels															
Fuels	Ethanol Proportion of Gasoline Vehicles		***	v			400				-004					
	Biodiesel Proprotion of Diesel Vehicles		109				10%				0% 110%					
	RNG		439				90%				0%	,				
Rue V	us Vehicle Mix		0%				0%				076					
Dus	Internal Combustion		939	16			10%				-89%					
	Electric		7%				90%				11959					
	of HHs with EV supply available (total HHs)	88%	88%	88%	88%	95%	95%	95%	95%	8%	8%	8%	8%			
% of		1.6%	1.6%	1.6%	1.6%	17 2%	17.2%	17 2%	17 2%	975%	975%	975%	975%			