Oregon
Tina Kotek, Governor

Oregon Transportation Commission
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DATE: March 2, 2023

TO: Oregon Transportation Commission

FROM: Kristopher W. Strickler
Director

SUBJECT: **Agenda Item J** – Draft Oregon Transportation Plan

Requested Action:
To seek feedback from the Commission in order to inform the draft Oregon Transportation Plan (OTP) that is being released for public review in early spring 2023.

Background:
The OTP, collectively with the state mode, topic and facility plans, set long range direction for Oregon's transportation policy, and informs investment decisions and implementing actions through 2050. The OTP fulfills a primary role for the OTC. Oregon Revised Statute 184.617(1) states:

The Oregon Transportation Commission shall:

(c) Develop and maintain a comprehensive, 20-year long-range plan for a safe, multimodal transportation system for the state which encompasses economic efficiency, orderly economic development and environmental quality. The comprehensive, long-range plan:

(A) Must include, but not be limited to, aviation, highways, mass transit, ports, rails and waterways; and

(B) Must be used by all agencies and officers to guide and coordinate transportation activities and to ensure transportation planning utilizes the potential of all existing and developing modes of transportation.

In January 2023, ODOT staff engaged the OTC with an update on development of the Oregon Transportation Plan (OTP), including an overview of the Draft OTP goals and policies, and key project milestones planned for 2023.

In February 2023, the OTP project team of ODOT staff and consultants prepared a preliminary draft of the plan for the OTP Policy Coordinating Committee (PCC) to review and discuss. The PCC is the primary committee helping inform decisions in the Plan and provide feedback and recommendations to the Commission. ODOT staff is currently incorporating the comments received from the PCC into the full draft version of the OTP.

Additional OTP information and resources can be accessed from the project website at: https://www.oregon.gov/odot/planning/pages/oregon-transportation-plan-update.aspx

Outcomes:
ODOT is seeking comments from OTC on the current draft of the OTP (Attachment 1) to incorporate into the full draft OTP that will be released for public review in early spring 2023. When the full draft OTP is released, there will be an open comment period and public hearing facilitated by ODOT within that period. Upon close of the full draft OTP public comment period, ODOT will record and address all public comments and prepare the final OTP package for OTC recommending action to adopt the plan in summer 2023.

Attachments:
- Attachment 1 – Draft OTP document

Draft Oregon Transportation Plan

February 15, 2023

Oregon Department of Transportation

HDR

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Appendices below in development:

Introduction to the Oregon Transportation Plan

1 Introduction

1.1 Welcome to the Oregon Transportation Plan

The Oregon Transportation Plan (OTP) defines the long-term transportation policy for the movement of people and goods across the state, including setting the framework for policies, strategies and actions in the present-day to 2050. It also informs investment decisions made by Oregon Department of Transportation (ODOT), regional and local governments, and transportation providers for all the ways Oregonians get around, including walking, rolling, and using public transit.

The OTP has been developed with resiliency in mind, including the capacity to prepare for, withstand, and recover quickly from disruptions, and the ability to adapt to changing conditions.

Understanding the implications of resiliency topics and trends on the state's transportation system and strategically implementing actions in the short and long term is a high priority.

Resiliency Focus Areas

- **Safety**
- **Climate Change**
- **Widening Social Inequities**
- **Changing Technologies**
- **Funding Streams**

Oregon is a diverse state with many differing and competing needs. This plan acknowledges contrasting challenges faced by Oregon travelers while aiming for safe and comfortable movement of people and goods across the state.

Planning for the future of transportation involves making decisions that often involves compromise. The OTP reflects informed choices made in recognition of the tradeoffs needed to achieve the plan's goals. While the OTP does not identify specific transportation projects, it contains polices and strategies to guide the prioritization and balancing of investments and considers sustainable funding options to meet the diverse needs of people using the transportation system.

1.2 Significance of the Oregon Transportation Plan

The OTP is connected to several key aspects of the lives of Oregonians. Access to safe, reliable and convenient transportation also affects access to jobs, education, healthcare, childcare, food, housing, leisure activities and more. Managing and operating Oregon's entire transportation system has major implications for social equity, economic health and the state's ability to bounce back from natural disasters.

The OTP addresses many key transportation challenges facing Oregonians. Transportation has a significant impact on climate change; today, it is estimated that 40 percent of Oregon's total greenhouse gas (GHG) emissions come from transportation. Fatalities and serious injuries continue to rise on Oregon roads and transportation revenue is declining while infrastructure prices are increasing. Economic and demographic shifts have also changed the way people attain goods and services, which has changed the needs of the system.

Key Transportation Challenges

Increase in Fatalities and Serious Injuries

Disrepair of Transportation Assets

Lack of Funding

Greenhouse Gas Emissions

These changes require a new way to plan and manage the transportation system, the OTP provides the direction to navigate the rapidly changing world of transportation in Oregon.

Transportation shapes the lives of people in Oregon, and this plan guides transportation. Planning for a better transportation future is a complex challenge that requires collaboration, compromise and creativity on local and statewide levels. This plan represents a chance to create a more sustainable and equitable transportation system that gets all Oregonians where they are going safely and efficiently.

1.3 Key Themes in the Oregon Transportation Plan

The plan establishes a vision for Oregon's transportation system that connects people and goods to places in the most climate-friendly, equitable, and safe way. The high-level priorities to realize that vision and set the appropriate policy direction start with these six foundational OTP Goal areas:

Foundational Goal Areas

Economic and Community Vitality

Social Equity

Mobility

Stewardship of Public Resources

Safety

Sustainability and Climate

Economic and Community Vitality

Economic instability, supply chain disruptions, changing priorities for Oregon communities, and an aging population results in changing needs on the transportation network. Provide systems for movement of people and goods that help communities thrive and prosper.

Social Equity

Meet the mobility needs of systemically excluded and historically underserved people with improved access to safe and affordable transportation. Create an equitable and transparent engagement and communications structure for investment implementation that builds public trust.

Mobility

Plan for a robust multimodal transportation system that enables the diverse range of community members who have diverse needs to get from origin to destination safely, reliably, and with minimal environmental impact.

Stewardship of Public Resources

Transportation revenue has been unable to keep up with aging infrastructure. Align revenue sources to strategically, cost-effectively, and intentionally direct public resources to achieve statewide policy priorities, through open decision-making processes.

Safety

Fatal and serious collisions have been on the rise. Enable safe transportation for all people, regardless of their age, ability, race, income, or mode of transportation.

Sustainability and Climate Action

Climate change results in impacts to both livability and threats to the transportation infrastructure. Reduce GHG emissions for all sectors of transportation. Invest in the resilience of the transportation system.

1.4 Oregon Transportation Plan Development

The development of the OTP has involved many different individuals and groups, including local, regional, and state agencies, tribes, ODOT staff, community leaders and organizations, and the public.

A key advisory group, the OTP Policy Coordinating Committee, comprised of government officials, industry leaders, advocates and Oregon residents from different communities, convened throughout the project to advise on development of OTP goals, policies, strategies, and actions.

Transportation subject matter experts in transportation policy and implementation collaborated on developing policy by participating in OTP Work Groups with a focus on:

- Social Equity
- Safety
- Mobility and Accessibility
- Climate Change, Environment and Resiliency
- Economy and Livability
- Modeling and Scenarios
- Electrification and Technology

The Oregon Transportation Commission ultimately adopts the OTP.

Key Drivers of Change

2 Key Drivers of Change

This section identifies "key drivers" that are influencing, and will continue to influence, Oregon's transportation system users in the coming years. Although the future is uncertain, each of these elements will affect the transportation infrastructure Oregon builds and how Oregon's communities choose to use the system. Understanding these drivers of change will in turn help to ensure resilient policies are created that weather these changes and promote desired outcomes. Some key takeaways include:

There is a vast disparity in changes to demographics and industry composition in rural versus urban areas. These disparities are visible in how the transportation system is impacted. For instance, many rural areas are experiencing out-migration, which reduces overall transportation demand – but connections remain important. Urban areas, on the other hand, are experiencing increased populations, which strains the transportation system with dramatic increases in demand.

Climate change comes at a high cost and requires comprehensive mitigation measures and upgrades. To meet climate goals, reduce the transportation sector's contribution to statewide GHG emissions, and prepare for extreme weather events, Oregon must apply climate change mitigation measures and prepare facilities to withstand climate events throughout the entire statewide transportation system. This includes all geographic regions and transportation sectors.

Technologies that influence the transportation system are rapidly changing and growing. Oregon must keep pace with technology trends and understand how these trends will impact the transportation system – especially with regard to mode choice – and how they can be leveraged to improve user experience and address concerns such as traffic congestion and climate change.

Some key drivers of change are producing conflicting trends. For instance, climate change implications are encouraging a reduction in single occupancy vehicle use. On the other hand, emerging technologies such as connected and autonomous vehicles are driving demand for single occupancy vehicles.

Additional funding is required to prepare the statewide transportation system for an extreme seismic event. Creative funding mechanisms, such as partnering with projects led by local jurisdictions, should be leveraged to ensure all future projects consider and incorporate seismic upgrades.

2.1 Equity

Entrenched disparities in laws and public policies and public and private institutions have often denied equal opportunity to individuals and communities. In the transportation sector, these disparities have resulted in a system that does not serve all users and disproportionately and negatively impacts historically and currently excluded and underserved communities. As these communities grow and change in Oregon and as the focus on equity grows, transportation planning must adapt to incorporate additional equity considerations, influencing projects in two ways; process and outcomes.

Equity Process and Equity Outcomes

An equitable process creates opportunities for historically excluded or underserved communities to co-create desired outcomes. Equitable outcomes prioritize historically excluded or underserved communities from bearing the burden of negative effects related to transportation decisions.

At the state level, ODOT has outlined equity goals that focus on workforce diversity and opportunities for advancement, expanding economic opportunities for minority groups, climate equity, and creating more representative public engagement processes.

A focus on equity in transportation planning and engineering is also driving change at the federal level, promoting a comprehensive approach to advancing equity for all, including people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality.

2.2 Climate Change

Transportation accounts for one-third of national carbon dioxide emissions that contribute to global climate change. In Oregon, GHG from the transportation sector, including the movement of people and goods on all modes (car, truck, rail and air) make up around 40 percent of total emissions. In turn, climate change implications in Oregon include more frequent and severe wildfires, flooding, and landslides, property damage and loss of life. Road closures resulting from extreme weather events impact freight, the economy, and provision of critical services. Oregonians need safe routes to use when catastrophic events require evacuation and potential relocation. While these and other efforts have made strides, and emissions are projected to be reduced long-term, there is still work to be done.

2.3 Population and Labor Force Changes

Demographic trends, including population and labor force changes, have and will continue to influence the transportation system use and needs within Oregon.

- **Population Growth** Oregon's population has increased rapidly, growing by about 24 percent (around 815,000 people) since 2000. Almost all of this growth has been clustered in regions along the statewide I-5 corridor and is projected to continue into the future. This projected long-term growth will add further burden to the transportation system.
- **Aging Population** While Oregon's population grows, it is also getting older, which has implications on medical transportation, regional labor force and mobility needs (including mobility aids and devices that help people with disabilities get around). Out-migration has left many rural areas of the state with an aging population and slower expected growth in the labor force. This segment of the population relies on efficient transportation, and often public transportation, to access lifeline services.
- **Urbanization** In urban areas, urbanization has strained transportation systems and resulted in severe traffic congestion conditions. Additionally, rapid population increases are exacerbating housing affordability issues, which further worsens congestion as people are forced to commute farther from more affordable locations.

2.4 Emerging Transportation Technology Trends

Technological advancements are and will continue to provide safety, mobility, and environmental benefits to users of Oregon's transportation system. These technological advancements—termed emerging transportation technologies—encompass a broad range of applications. Spurred by improvements in computing power and miniaturization, communications and networking, and an increase of available data, these emerging technologies are advancing rapidly and could significantly change transportation over the coming decades.

The emerging transportation technologies that are considered primary drivers of change are organized into four categories:

1. **Vehicle technology** includes connected and autonomous vehicles, and other electric vehicles.
2. **Mobility services** includes active transportation options, shared mobility services, and ride-hailing services. The integration of transportation services into a single trip-planning and payment platform is known as Mobility as a Service.
3. **Freight logistics and local delivery applications** include freight vehicle platooning, efficiencies in distribution networks, and on-demand delivery services.
4. **Emerging personal technology** includes augmented reality, virtual transportation, and single occupancy vehicle technology that will continue to impact transportation options.

The development, implementation, and extent of adoption or market penetration will vary. The most significant impacts are likely to occur beyond the next 20 years and will require the convergence of multiple technological advancements. However, over the next 20 years, Oregon will have a substantive mixed fleet of connected vehicles, automated vehicles, and electric vehicles that are not connected and have low levels of automation operating on the transportation system. While safety benefits can be realized, varying levels of automation may present challenges for Oregon.

2.5 Resiliency and Disaster Planning

There is consensus that a large-scale Cascadia subduction zone earthquake, and more surficial but potentially severely detrimental earthquakes, will occur in the not-so-distant future, and Oregon's transportation infrastructure must be better prepared to build necessary resilience.

Oregon is taking an incremental approach to this significant need, with investments planned over multiple decades to prioritize seismic deficiencies on key lifeline routes.

2.6 Pandemic Disruptions

The COVID-19 pandemic experienced worldwide, had extensive impacts to the transportation system. Traffic volumes on the roadways dropped dramatically temporarily but have quickly rebounded. Transit ridership and aviation enplanements are still recovering to pre-pandemic levels and logistical supply chain disruptions are still experienced. Some impacts from the pandemic, such as remote working, are likely to continue into the future leading to changes in how the transportation system is used.

Each of these drivers of change will continue to place pressure on the existing transportation infrastructure in Oregon and change the needs of travelers utilizing the transportation system summarized in Chapter 3.

Oregon's Transportation System

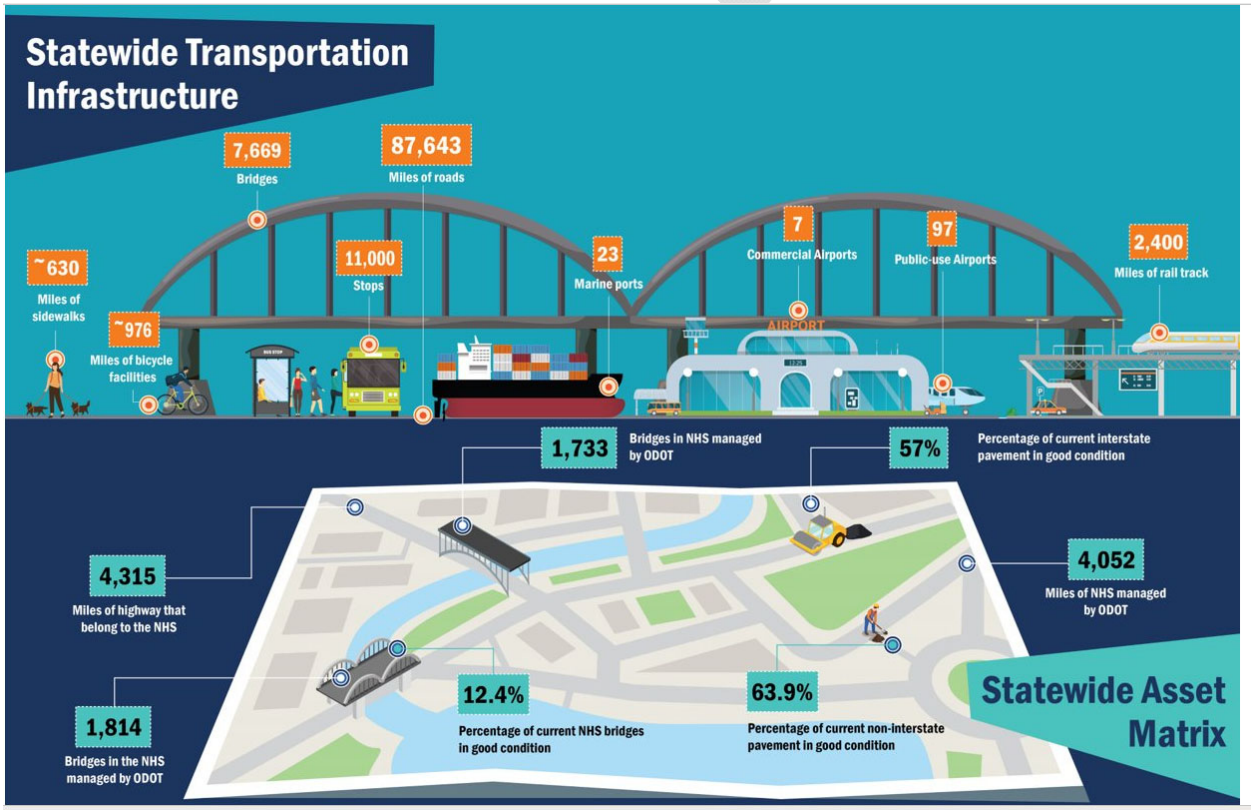
3 Oregon's Transportation System

A modern transportation system ensures that all Oregonians can travel safely and efficiently throughout the state via the mode of their choice. By maintaining and enhancing the many facilities that transportation agencies manage, transportation plays a key role in the economic, social, and environmental health of the entire state.

As Oregon looks to the future, planning for transportation services in support of Oregon's increasing population and growing economy only becomes more critical.

Oregon's transportation system is complex and consists of many different modes for all types of users. The following summarizes key elements of transportation in Oregon (Figure 1). Additional information can be found in Volume 2 of this plan. The OTP's goals, policies, strategies and investments provides direction as Oregon manages these critical assets in the face of challenges and trends, and other drivers of change.

Figure 1. Statewide Transportation Infrastructure Overview



3.1 Aviation

Oregon has 97 airports that are vital to the state's economy and public safety. These airports range from international passenger airports to rural airstrips supporting critical resource management. Key findings include:

- Aviation infrastructure and services have seen challenges in commercial enplanements from the pandemic leading to revenue reductions and less reliable service.
- Redmond Airport will play a key role in recovery in the event of a major seismic event as the primary aviation hub in Central Oregon.
- Rural airstrips play a critical role in responding to wildland firefighting and are facing challenges with aging infrastructure and limited funding to address it.

3.2 Bicycle and Pedestrian

Active transportation relies on safe and connected bicycle and pedestrian infrastructure tailored to Oregon's diverse communities. Key findings include:

- In areas outside of communities, roadway shoulders often serve as walkways and bikeways.
- Shared use paths serve non-motorized travelers in both urban and rural areas for commute and recreational purposes.
- These facilities are also crucial for meeting Americans with Disabilities obligations and remain a focus of state and local transportation providers alike.
- System gaps exist on key routes as well as in features to improve safety when traveling along Oregon roadways and crossing roads and streets.
- Bicyclists and pedestrians are particularly vulnerable users of the transportation system and experience disproportionate risk when using the system.

3.3 Freight

Oregonians depend heavily on the transportation system to get needed goods and services and enhance economic prosperity. Freight mobility in Oregon is provided by a multimodal network that includes highways, local roads, rail, air, marine and pipeline operations. The majority of

Oregon's freight (70 percent) is transported on Oregon's highway system and congestion from bottlenecks has a direct impact Oregon's economy. Key findings include:

- Studies of existing freight highway conditions in Oregon identified that congestion from urban bottlenecks as a major issue, affecting Oregon's economy with variations in travel-time reliability and rising travel costs.
- Oregon has struggled with competitiveness with international air freight due to limited direct services to the Pacific Rim area.
- Oregon's marine freight facilities have aging infrastructure that requires substantial investments and has challenges with efficient marine-roadway connectivity.
- Oregon's rail infrastructure is served primarily by two major rail lines that have constrained speeds due to tight curves and height constraints.

3.4 State Highways and Local Streets

State highways and local roads and streets play a critical role in Oregon transportation, facilitating the movement of freight, passenger vehicles and supporting public transportation, and bicycle and pedestrian travel within and along the right of way. These facilities are complex infrastructures that often serve different purposes such as long distance travel and connections to jobs and schools that serve mainly local traffic. Key findings include:

- While overall roadway travel has increased due to Oregon's growing population, per capita vehicle miles traveled (VMT) has gone down. As Oregon continues to provide alternative travel options, passenger VMT per capita should continue this trend to help to the overall goals of the OTP.
- While state highways are just a share (18 percent) of the total miles of roads within the state, travel on these roads accounted for 59 percent of total VMT. Highways account for the majority of heavy vehicle VMT.
- Highways and streets serve many modes, trip purposes and land uses. However, declining revenue and a growing maintenance backlog puts the system at risk.

State and Local Roads

State roads account for 59 percent of total VMT, but only 18 percent of lane miles due to the longer trip lengths. Local roads account for 41 percent of total VMT, but 82 percent of lane miles in Oregon. The state system accounts for over 78 percent of heavy VMT.

3.5 Public Transportation

Public transportation is an essential element of Oregon's transportation system. Oregonians take over 100 million public transportation trips each year. Key findings include:

- There are three primary forms of public transportation in Oregon; intra-urban fixed route public transit, inter-urban fixed-route transit and demand responsive (dial-a-ride) services for those with special transportation needs.
- The public transportation system suffered significant setbacks during the pandemic and has yet to fully recover.
- Safety and security have become substantial concerns for public transportation users in urban areas, which disproportionately affects communities of color.
- Some Oregonians are dependent on public transportation to travel within urban areas, as well as rural travelers seeking needed medical services or goods in other cities.
- Successful public transit is a key component to reducing VMT and GHGs.

3.6 Passenger Rail

Railroads in Oregon serve both freight providers and travelers; helping move bulk goods efficiently and providing important connections for people traveling between Oregon communities. Key findings include:

- Passenger rail service in Oregon uses the national rail network owned by Union Pacific and Burlington Northern Santa Fe, which consists of long-distance intercity service that links metropolitan regions along the U.S. West Coast, with connections to other U.S. regions.
- Amtrak Cascades intercity passenger rail connects the Willamette Valley to the larger Pacific Northwest Rail Corridor that links Eugene to Vancouver, British Columbia.
- TriMet's Westside Express Service commuter rail service operates through an agreement with Portland and Western Railroad and serves stations in Beaverton, Tigard, Tualatin, and Wilsonville.

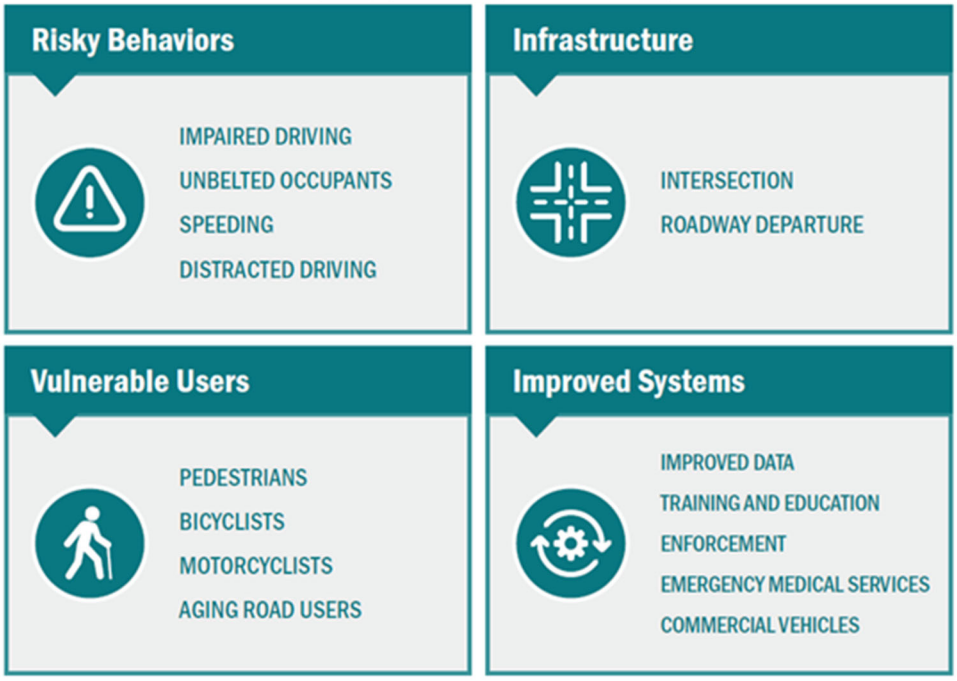
3.7 Transportation Safety

Fatalities and serious injuries have been increasing, even steeply in recent years. Different areas of Oregon experience diverse types of safety challenges; roadway departures are much more common in rural areas where medical services may be large distances from the crash location while intersection crashes, often with vulnerable users such as bicyclists and pedestrians involved, account for a majority of fatal and serious crashes in urban areas. Key findings include:

- Approximately 56 percent of fatal and serious injury crashes occur in urban areas, while 44% occur in rural areas.
- The four largest attributes of fatal and serious injury crashes include roadway departures (41% of total), intersection crashes (36 percent), speed-related crashes (24 percent) and Alcohol and/or drugs involved (22 percent).
- Aging drivers (drivers over 65 years of age) are involved in the highest proportion of fatal and serious injury crashes, followed by young drivers (15-20 years old) and motorcycles. Pedestrians were the second highest proportion of road user in fatal crashes.

Several key emphasis areas (Figure 2) are outlined in the Transportation Safety Action Plan arising from detailed analysis of trends and factors provide focus for key actions to work toward eliminating fatal or life changing injuries.

Figure 2. Four emphasis areas to move toward eliminating fatal and serious injury crashes in Oregon



3.8 Transportation Options

Transportation options programs connect people to transportation choices, allowing them to bike, walk, take transit, drive, share rides, and telecommute. Key findings include:

- Advancements in technology have provided many new options for travelers looking for alternative ways to get around or connect multiple modes where those options exist.
- The creation of transportation options programs has made progress in connecting people to transportation services in Oregon. The "Get There Oregon" program has been growing by over 20 percent a year.

Vision and Values

4 Vision and Values

The OTP Vision describes the overarching intention of the state's transportation system and a common purpose that all of Oregon can work toward.

The **OTP Vision and Values** statement is a way to describe Oregon's ideal future and begin to express the values that will shape policy.

The **OTP Goals** are specific areas where Oregon can take actions in order to realize the overall vision and set policy direction to enable the future set forth in the Vision.

The **OTP Objectives** define the desired outcomes that the goals can achieve.

The **OTP Policies and Strategies** are specific actions that state what needs to happen to make progress toward those outcomes outlined in the objectives.

4.1 Vision and Values Statement

Oregon's transportation system supports all Oregonians by **connecting people and goods to places in the most climate-friendly, equitable, and safe way**. Users of the transportation system enjoy the following advancements:

- **Mobility** A multimodal transportation system enables a diverse range of community members with different needs to get from point A to point B safely and with minimal environmental impact. The most critical multimodal connections are complete, making it easier and safer for people to get around, especially near schools and commercial centers. Key routes in the state are well-maintained and reliable. The transportation system incorporates emerging transportation technologies into a multimodal transportation network so people experience seamless integration of Oregon's public transportation system with priority active transportation connections. Oregon has a fully connected, efficient and safe transportation network.
- **Safety** People can get where they need and want to go safely. User needs and facility design are aligned, based on the context of the surrounding built environment. This allows agencies to design and manage the transportation system in a way that emphasizes safety over comfort or speed, while enabling technological solutions to mitigate effects of distracted driving and other safety challenges. There has been a significant decline in the number of people becoming seriously injured and dying in crashes, recognizing no loss of lie is acceptable.
- **Sustainability and Climate Action** Oregon recognizes the climate crisis and makes systemic changes to reduce emissions caused by travel. Every mile driven in Oregon is powered by a clean source of fuel. Construction and maintenance operations are carbon

neutral and investments in mobility support travel by low and no emission modes. The transportation system is resilient in the face of seismic and climate events and does not contribute to the degradation of the natural environment.

- **Economic Vitality and Livability** Transportation is not an end in itself, rather it enables people to connect with one another, make a living, visit beautiful places, and share goods. The transportation system provides opportunities for community and economic prosperity for everyone. Moving goods and materials is efficient and reliable, supporting commerce and creating jobs while keeping communities safe and clean. Tourism to Oregon's towns, cities, and beautiful natural wonders enriches lives and supports economies across the state.
- **Stewardship of Public Resources** Decision-making and transportation investments reflect the values of open decision-making, environmental stewardship, public health, and thoughtful management of the transportation system. The public's assets are preserved and investments are well-managed. With reliable funding streams that has broad public support, transportation agencies collaborate effectively and adaptively manage resources in the face of uncertainty.

Policy Framework

5 Policy Framework

5.1 Policy Framework

The update to the OTP comes at a critical time. Oregon has experienced growing climate concerns, natural hazards, economic downturns and major disruptions that has affected the way we live, work and travel. Oregon has also seen dramatic leaps in technology, changes in society values and preferences as well as shifts in demand and the need for seamless mobility.

Oregon needs a plan that meets the challenges we face not only today but also during the coming decades. Oregonians want a transportation system that connects people and goods to places in the most climate-friendly, equitable and safe way. The policies in the OTP touch on the many goals, objectives, and ways in which that is done. Collectively, they are designed to realize the OTP vision, recognizing the many and diverse needs of people and businesses today and in the future. In an ideal world all needs would be met. However, some goals are conflicting and must therefore be balanced, and, with limited resources, tough choices involving tradeoffs must be made. In support of these challenges, this section outlines the direction and focus areas across policies in the OTP update.

Save Lives

The transportation system must support the ability of people to travel safely from origin to destination. The priority is to stop people from being killed or severely injured on Oregon's roads and across the transportation system. Recent trends show fatalities and serious injuries are on the rise, and people who walk, bike, or roll are most at risk. Research is also showing that BIPOC communities have a higher likelihood of being killed or severely injured than do other populations. Working to eliminate fatalities and serious injuries requires special attention to these areas. The OTP calls for a safe systems approach, like designing the transportation system to safely accommodate all users and uses of the system, reducing potential safety conflicts between modes, embracing vehicle and infrastructure technology to help correct driver error or distraction, and conducting education and outreach. When solutions are identified that can save lives but may conflict with other goals, such as freight mobility or decreasing emissions, safety takes precedence.

Center Equity

Transportation decisions have disproportionally impacted communities and populations, leading to disparities in access to and the safety of the transportation system. These decisions have also affected neighborhoods, economic development, and air quality for generations. The OTP identifies these issues and sheds light on the need to close equity gaps. It also calls for the removal of barriers to access and participation in making decisions, ensuring that diverse voices

and broad perspectives are engaged in each phase of decision-making. The plan also recognizes the need to have a diverse transportation workforce with direct decision-making ability. In addition, policies focus on creating a more equitable transportation system and outcomes, such as increasing access to travel options and reducing travel costs.

Reduce Greenhouse Gas Emissions

Transportation is the largest polluting sector. Climate change and extreme weather are impacting the state's economy and people's lives. The transportation system must rapidly decarbonize to achieve GHG reduction goals. The OTP focuses on transitioning to cleaner vehicles and fuels, especially electric, to make every mile driven clean. Policies for transportation electrification go beyond just cars and trucks but also electrification of bikes, scooters, transit buses and freight trucks. The plan also calls for getting more people biking, walking or taking transit, land use patterns that support use of those modes, and pricing the transportation system. These and other actions support the goal in the plan to reduce per capita passenger vehicle miles VMT – which will help with emission reductions in the short term but also enable more efficient use of existing capacity across modes and promote healthy lifestyles. Along those lines, the plan also limits roadway expansion to occur only after pricing, options for shifting modes, use of demand management strategies, and operational improvements are explored and projected to be insufficient at reducing congestion.

Secure Sustainable and Reliable Transportation Funding

Today's transportation funding covers less than a quarter of total investment needs. The funding that does come in is largely dependent on a carbon-based revenue form, the gas tax. As the transportation system decarbonizes, the funding becomes increasingly limited. The OTP recognizes the need to diversify Oregon's transportation revenue sources and ultimately shift to a VMT fee, such as OReGO. It also calls out pricing programs such as tolling, congestion pricing, parking pricing, and carbon charges to not only raise revenue but support overall OTP objectives. The plan also identifies the need to sustain and enhance alternative funding sources, such as the payroll tax for public transportation. Overall policies point to true cost pricing, which more fully recovers the cost to build, operate, maintain and manage the multimodal transportation system. There is also direction in the OTP to index revenue sources for inflation to help make funding more sustainable.

Maintain the existing system and complete critical connections

Although the OTP calls for increasing transportation funding, the money available today is woefully insufficient and limited dollars result in deteriorated roads and bridges, disconnected walkways and bikeways, inadequate transit service and overall hardships for people trying to connect to critical destinations. With limited resources, Oregon must be strategic with investing

in the transportation system. Primarily, the plan identifies the need to focus dollars on eliminating fatalities and serious injuries, maintaining lifeline routes and key corridors, sustaining transit service, and adding critical connections for biking, walking, and rolling. As additional funds become available, focus can expand to broader maintenance of the transportation system and ensuring resiliency beyond the backbone system, increasing transit, biking, and walking connections, and improving overall safety.

Enable the efficient movement of goods and services

Freight helps move the Oregon economy and, as part of the global economy, freight travel times must be reliable and predictable to keep Oregon competitive. The ability to move goods by truck, on rail, by water, or in the air depends on the commodity that is being shipped and the efficiency of those modes. Bottlenecks and congestion disrupt the system. Many policies in the OTP are designed to address these issues and enable multi-modal freight connections. On-road freight efficiency, for example, should benefit from passenger VMT reduction, with more people biking, walking, or taking transit. However there are still likely be areas of severe congestion where strategic roadway enhancements will be needed to improve timeliness and reliability for freight. Overall, the OTP envisions a system to keep freight moving from origin to destination, with easy transfers between modes, services and systems.

Goals, Objectives, Policies and Strategies

6 Goals, Objectives, Policies and Strategies

6.1 Economic and Community Vitality

Goal EC

Improve prosperity, opportunity, and livability for all people who live, work, and recreate in Oregon.

Objectives

- **EC.1**: Link transportation and land use decisions, recognizing the impact both have on how and where people travel.
- **EC.2**: Provide safe and reliable movement of goods and materials.
- **EC.3**: Provide systems for the movement of people and goods to help communities thrive and prosper.
- **EC.4**: Create and maintain healthy and cohesive communities.
- **EC.5**: Provide, maintain, and enable multimodal intercity connections that support access to Oregon's natural, cultural, and heritage destinations.

The Big Ideas

- Provide multimodal access to places around the state for recreation, tourism, and commerce.
- Move goods and provide access to services in an innovative way to help Oregon's economy thrive.
- Ensure the transportation system is a means for supporting public health and community life.
- Increase convenient and efficient transportation options available to affordable neighborhoods and communities.
- Provide access to community places and destinations.

Objective EC.1: Link transportation and land use decisions, recognizing the impact both have on how and where people travel.

- **Policy EC.1.1**: Encourage development of compact communities and mixed-use neighborhoods to support multimodal trip choices and efficient public investments.
    - **Strategy EC.1.1.1:** Invest in transportation projects and programs that connect areas of compact development (or planned for compact development) with walking, rolling, biking, and transit facilities and services.
- **Policy EC.1.2**: Facilitate the creation of places where residents, workers, and visitors can meet most of their daily needs without driving. These will be mixed-use communities that contain a combination of housing, jobs, businesses, and services, and that are served by safe transportation options for all modes, including high-quality infrastructure for people to walk, roll, bike, and take transit.
    - **Strategy EC.1.2.1:** Emphasize multimodal connections to areas that include affordable housing to help those households reduce combined total transportation and housing costs.
    - **Strategy EC.1.2.2:** Support the development of downtowns with coordinated transportation and economic development strategies and system improvements.

Objective EC.2: Provide safe and reliable movement of goods and materials.

- **Policy EC.2.1**: Promote freight system integration and efficiency for a competitive advantage in regional, national, and international markets.
    - **Strategy EC.2.1.1**: Support a diversified freight system through planning, integration, and targeted funding for non-highway freight modes, such as rail, port, intermodal, and air cargo facilities.
    - **Strategy EC.2.1.2**: Maintain and enable access for general commercial vehicles to key freight origins and destinations and intermodal facilities.
- **Policy EC.2.2**: Support efficient movement of freight to help keep delivery costs from increasing.
    - **Strategy EC.2.2.1**: Study commodity flow in Oregon and identify current and potential freight bottlenecks, seeking solutions to address needs.
- **Policy EC.2.3**: Fund innovative technology, management, and information sharing that will facilitate resilient and efficient goods movement and economic strategies.
    - **Strategy EC.2.3.1**: Emphasize use of less-polluting freight vehicles (e.g., cargo e-bikes, vans, and medium-duty trucks) to move goods within urban environments while supporting larger and heavier freight activity at the periphery of urban environments and for intercity travel.
    - **Strategy EC.2.3.2**: Where large trucks are needed for urban deliveries, support them with sufficient technology-enabled parking and curbside regulation,

including shared loading zones with freight prioritized at certain times of day, to reduce idling and increase fuel efficiency.

- **Strategy EC.2.3.3:** Transition to cleaner freight vehicles such as electric, hydrogen, or low-carbon fuel.

Objective EC.3: Provide systems for the movement of people and goods to help communities thrive and prosper.

- **Policy EC.3.1**: Provide a transportation system that minimizes limitations; expands connectivity, flexibility, and resiliency; and allows all segments of the economy (industries, communities, and individuals) to thrive.
  - **Strategy EC.3.1.1**: Measure the ability of people to access essential destinations, such as employment, education, and health care, with and without access to a private vehicle.
  - **Strategy EC 3.1.2**: Provide options for intercity commuting and work travel that do not require access to a private vehicle, such as passenger rail and regional transit.

- **Policy EC.3.2**: Reduce transportation cost burdens on businesses and residents.
  - **Strategy EC.3.2.1**: Reduce business transportation cost burdens (e.g., parking, long commutes, and fuel) by encouraging transportation option programs and reduced energy cost per mile.
  - **Strategy EC.3.2.2**: Reduce household transportation cost burdens by investing in programs that expand the availability, accessibility, and convenience of transportation options that do not require vehicle ownership.
  - **Strategy EC.3.2.3**: Advance access to digital infrastructure, automation, and support systems to reduce barriers to transportation information, enable efficient travel choices, and reduce travel costs.

Objective EC.4: Create and maintain healthy and cohesive communities.

- **Policy EC.4.1**: Emphasize public health outcomes and maintain and restore community cohesion through system design and investments.
  - **Strategy EC.4.1.1**: Work with roadway owners to provide opportunities to use transportation right-of-way as an enhancement to community livability, such as through street plazas, demonstration projects, open street events, and similar events and programs.
  - **Strategy EC.4.1.2**: Coordinate private and public resources to provide flexible and responsive transportation improvements and services to help stimulate active and vital downtowns, economic centers, and main streets.

    - **Strategy EC.4.1.3**: Maintain and improve community members' ability to walk, roll, and bike safely where they live as part of routine recreation, exercise, and social activities.
    - **Strategy EC.4.1.4**: Promote modes of transportation that increase physical activity and invest in the infrastructure that enables them (e.g., sidewalks, bikeways, off-street paths, and safe arterial crossings).
- **Policy EC.4.2**: When designing new or replacement transportation infrastructure, use the latest design guidance and approved standards appropriate to the context to enhance the comfort and quality of the space for the benefit of the surrounding community.
    - **Strategy EC.4.2.1**: Incorporate trees and vegetation within project areas to enhance the attractiveness of communities and transportation systems, ensuring that plantings maintain the visibility and safety of transportation system users and are appropriate for the environment (e.g., are drought-resistant or do not increase wildfire danger).
    - **Strategy EC.4.2.2**: Create welcoming, visible, and well-lit spaces that reinforce personal security while naturally deterring illegal or dangerous activity.
    - **Strategy EC.4.2.3**: Reduce and avoid negative air quality, noise, and visual impacts from the transportation system on adjacent communities.

Objective EC.5: Provide, maintain, and enable multimodal intercity connections that support access to Oregon's natural, cultural, and heritage destinations.

- **Policy EC.5.1**: Support tourism by coordinating transportation investments and operations with the tourist industry and affected communities.
    - **Strategy EC.5.1.1**: Plan for travel related to tourism throughout the state as a critical economic tool for both urban and rural communities and a meaningful, affordable option for families to enjoy Oregon's many natural areas.
    - **Strategy EC.5.1.2**: Designate priority routes for recreational trails, scenic byways, and multimodal activities such as cycle tourism and support their safe use through investments in programs and system improvements.

6.2 Social Equity

Goal SE

Improve access to safe and affordable transportation for all, recognizing the unmet mobility needs of people who have been systemically excluded and underserved. Create an equitable and transparent engagement and communications decision-making structure that builds public trust.

Objectives

- **SE.1**: Recognize past harms and remove barriers to inclusion and opportunity.
- **SE.2**: Make decisions through processes that are transparent, inclusive, and engaging to all people affected by the transportation system.
- **SE.3**: Improve access to and convenience of a range of high-quality, safe, and affordable mobility options for systemically excluded or underserved populations.
- **SE.4**: Expand access to essential services and economic opportunities through programs and investments.

The Big Ideas

- Acknowledge and account for existing inequalities and damage caused by transportation decisions.
- Strive to prevent historically excluded and underserved communities from further bearing the burden of negative effects related to transportation decisions.
- Embed social equity in all programs, processes, and policies.
- Implement open and inclusive processes that build trust.
- Welcome, serve, and empower members of marginalized, oppressed, and underserved communities.
- Reduce household transportation costs for those disproportionately burdened.

Objective SE.1: Recognize past harms and remove barriers to inclusion and opportunity.

- **Policy SE.1.1**: Acknowledge the role of Oregon's colonial history in altering the landscape, traditions, communities, and trajectory-of-prosperity for Indigenous people, tribes, and nations, and—through collaboration—elevate the quality of transportation for Indigenous people, tribes, and nations to State of Oregon standards or better.
    - **Strategy SE.1.1.1**: Consult with all state-recognized tribes to develop formal agreements to explicitly address benefits and burdens of transportation policies and investment priorities upon tribal communities. Do this in coordination with established engagement channels.
    - **Strategy SE.1.1.2**: Ensure emerging technology issues, in particular, are understood and addressed when consulting with state-recognized tribes.
- **Policy SE.1.2**: Understand and reflect the perspectives and diversity of Oregon within decision-making structures.
    - **Strategy SE.1.2.1**: Seek direct input regarding each community's unique cultural experiences and acknowledge how they impact their transportation needs, access, and options.
    - **Strategy SE.1.2.2**: Recruit and manage transportation agencies' employees, advisory committees, review boards, task forces, and other decision-making entities so that they reflect the intersecting identities and diversity of the communities they serve.
- **Policy SE.1.3**: Improve access for transportation-vulnerable people with a focus on systemically excluded or underserved populations (populations with high numbers of BIPOC, people experiencing low income, people living with one or more disabilities, seniors, youth, and rural residents).
    - **Strategy SE.1.3.1**: Identify communities underserved by walking, rolling, biking, transit, and micromobility travel options and areas where transit service levels are low.
    - **Strategy SE.1.3.2**: Prioritize investments for systemically excluded and underserved populations to reduce disparities in access to economic, recreation, and social destinations.

Objective SE.2: Make decisions through processes that are transparent, inclusive, and engaging to all people affected by the transportation system.

- **Policy SE.2.1**: Ensure the voices of all people are heard in decision-making processes.
    - **Strategy SE.2.1.1**: Build trust and relationships with systemically excluded or underserved populations (populations with high numbers of BIPOC, people experiencing low income, people living with one or more disabilities, seniors, youth, and rural residents). For example, agencies can work with

community organizations over time to strengthen relationships that outlive individual projects.

  - **Strategy SE.2.1.2**: Increase and resource ways for systemically excluded and underserved people to participate throughout decision-making processes, recognizing and addressing distinct barriers to participation. Such barriers include cost and access obstacles to joining an in-person or online meeting, schedule and time limitations, language barriers, and cognitive differences.
  - **Strategy SE.2.1.3**: Use process tools such as affinity groups to elevate the voices and perspectives of BIPOC and other systematically excluded or underserved populations so they are central to the framing and execution of the project planning process.
- **Policy SE.2.2**: Inform and empower stakeholders, particularly those who have been systemically excluded or underserved, about opportunities and actions to influence open decision-making.
  - **Strategy SE.2.2.1**: Communicate information and impacts to the public and partners in a clear and timely manner.
  - **Strategy SE.2.2.2**: Provide equitable access to information for communities across the state, considering communication platforms and information sources that are culturally responsive and accessible to all.
  - **Strategy SE.2.2.3**: Be inclusive, transparent, and clear about how equity tools (e.g., equity indices, frameworks, and processes) change decisions and influence outcomes.

Objective SE.3: Improve access to and convenience of a range of high-quality, safe, and affordable mobility options for systemically excluded or underserved populations.

- **Policy SE.3.1**: Help all Oregonians thrive through inclusion and consideration of equity in transportation decision-making and investments.
  - **Strategy SE.3.1.1**: Invest in projects that would clearly benefit the safety and public health outcomes of systemically excluded or underserved populations.
  - **Strategy SE.3.1.2**: In response to the higher rates of roadway fatalities for people walking and biking in areas that are predominantly low income and BIPOC, make multimodal safety investments in areas with a high concentration of systemically excluded or underserved populations.
  - **Strategy SE.3.1.3**: At all phases of planning and project development, recognize the role of public transit as a lifeline resource for people experiencing low income, people living with one or more disabilities, seniors, and youth.

- **Policy SE.3.2**: Address barriers to accessing and using vehicles and tools that feature emerging technology (e.g., electric vehicles, trip planning services and information, and shared micromobility vehicles).
    - **Strategy SE.3.2.1**: Address electric vehicle ownership and use, including inequitable financing, uneven access to information, and location and security of reliable charging stations.
    - **Strategy SE.3.2.2**: Encourage development of shared use transportation resources that minimize up-front costs and are designed to be accessible to people of all income levels.
    - **Strategy SE.3.2.3**: Leverage resources focused on technology investments to maximize equitable outcomes by updating existing (and establishing new) partnership agreements with other state agencies, investor-owned utilities, community-owned utilities, and local community-based entities.
- **Policy SE.3.3**: Consider household budgets and proportional household income spent on transportation costs in transportation system design and implementation. Balance costs for all users to ensure none are overly burdened, including both households and businesses.
    - **Strategy SE.3.3.1**: Partner with private and nonprofit sector mobility providers to implement equitable and accessible services.
    - **Strategy SE.3.3.2**: Support affordable financing of electric vehicles of all types, including e-bikes, for personal ownership among underserved communities.
    - **Strategy SE.3.3.3**: Invest in the infrastructure and levels of service that make existing low-cost modes of travel—such as walking, rolling, biking, and transit—more convenient, reliable, and available.

Objective SE.4: Expand access to essential services and economic opportunities through programs and investments.

- **Policy SE.4.1**: Ensure the needs of the most transportation-vulnerable people and systemically excluded or underserved populations are meaningfully addressed and that policies produce improved outcomes.
    - **Strategy SE.4.1.1**: Conduct and apply lessons from studies and analysis to understand transportation disparities that exist among systemically excluded or underserved populations.
    - **Strategy SE.4.1.2**: Increase transportation investments that benefit systemically excluded or underserved populations.
- **Policy SE.4.2**: Invest equitably in the Oregon economy by increasing contracting opportunities for Oregon BIPOC- and women-owned businesses, with the intent of

creating wealth, building capital, expanding networks, and building new skills within these communities.

- **Strategy SE.4.2.1**: Establish and continue to evaluate and improve aspirational contracting goals for Oregon BIPOC- and women-owned businesses.
- **Strategy SE.4.2.2**: Identify and reduce burdens associated with contracting for Oregon BIPOC- and women-owned businesses.
- **Strategy SE.4.2.3**: Provide technical assistance, trainings, and networking opportunities for Oregon BIPOC- and women-owned businesses.

6.3 Mobility

Goal MO

Create a resilient multimodal transportation system that enables the diverse range of community members and businesses with different needs to get where they need to go safely, reliably, and affordably, and with minimal environmental impact.

Objectives

- **MO.1**: Complete, maintain, and improve multimodal transportation facilities and services that are essential to Oregonians' prosperity and quality of life.
- **MO.2**: Reduce the per capita VMT for passenger vehicles.
- **MO.3**: Create a transportation system that is fully accessible to people of all ages, abilities, races, ethnicities, and income levels, regardless of geographic context.
- **MO.4**: Maintain or improve travel reliability for movement of goods and access to services.
- **MO.5**: Tailor transportation solutions to the local context, allowing for different solutions to achieve OTP goals in rural, suburban, and urban communities.
- **MO.6**: Integrate emerging transportation technologies into transportation services and facilities.

The Big Ideas

- Put people first.
- Get people and goods from point A to point B, safely.
- Complete the critical connections in our transportation networks.
- Ensure low-carbon transportation options are available and easy to use.
- Leverage technology; anticipate the future.
- Provide a robust transportation system so people have options and can make choices.
- Design roads to fit their context and intended function.

Objective MO.1: Complete, maintain, and improve multimodal transportation facilities and services that are essential to Oregonians' prosperity and quality of life.

- **Policy MO.1.1**: Provide a well-connected and seamless multimodal transportation system that promotes the safe movement of people and goods.
    - **Strategy MO.1.1.1**: Complete the most critical multimodal connections. Define priority networks for all modes based on connectivity and access to destinations;

integrate these networks into plans and investment decisions at the state, regional, and local levels.

- **Strategy MO.1.1.2**: Improve the affordability, reliability, safety, comfort, and time efficiency of walking, rolling, biking, and transit so they are competitive with auto travel.
- **Strategy MO.1.1.3**: Increase public transit ridership by enhancing network coverage, frequency, or span of service through approaches tailored to the local context.
- **Strategy MO.1.1.4**: Complete critical bicycle and pedestrian connections to areas with a high proportion of transportation-disadvantaged people, and surrounding schools, shopping, employment centers, medical services, connections to transit, and downtowns.
- **Strategy MO.1.1.5**: Ensure children can access education through safe and connected bikeways and walkways by providing funding and building capacity for Safe Routes to School infrastructure and education programs.
- **Strategy MO.1.1.6**: Develop and promote intercity passenger rail as a low-emission approach to efficient long-distance travel.

Objective MO.2: Reduce the per capita VMT for passenger vehicles.

- **Policy MO.2.1**: Prior to adding new motor vehicle capacity, assess whether the capacity or other needs can be reasonably addressed by a cooperative approach among agencies to carry out one or a combination of the following:
  - Multimodal investments (e.g., increased transit service, multimodal network completion, and connectivity improvements that are non-auto),
  - Transportation options programs (e.g., education and outreach, transportation options information, trip planning, or rideshare support),
  - Transportation system management improvements (e.g., ramp metering, signal coordination, or roadway lane reconfiguration), or
  - Context-appropriate pricing strategies (e.g., roadway tolling, charging for parking, or incentives).
  - **Strategy MO.2.1.1**: Establish an investment prioritization process that emphasizes throughput of individuals and freight (e.g., multimodal freight- and people-movement capacity) rather than the quantity of vehicles (e.g., volume-to-capacity ratio of a roadway).
  - **Strategy MO.2.1.2**: Implement metrics to ensure multimodal improvements that benefit more than just vehicle movement are identified in development review and traffic impact assessment processes.

- **Strategy MO.2.1.3**: Prior to implementing projects that add motor vehicle capacity, work with partners to avoid the impacts of latent and induced demand.

Objective MO.3: Create a transportation system that is fully accessible to people of all ages, abilities, races, ethnicities, and income levels, regardless of geographic context.

- **Policy MO.3.1**: Design and maintain a transportation system that allows people of all ages, abilities, and income levels to safely reach destinations (e.g., for employment, education, groceries, recreation, parks and natural areas, health care, and social opportunities) via active and low-carbon transportation modes of travel.
  - **Strategy MO.3.1.1**: Prepare a State of Oregon Transition Plan consistent with Title II of the Americans with Disabilities Act to establish actions and funding priorities that ensure transportation facilities are accessible to all users.
  - **Strategy MO.3.1.2**: Meet or exceed Americans with Disabilities Act standards. Design for universal access whenever feasible.
  - **Strategy MO.3.1.3**: Develop and maintain pedestrian and off-street path networks, including addressing missing sidewalks, curb ramps, and accessible pedestrian signals on arterial crossings.
  - **Strategy MO.3.1.4**: Document, plan for, and identify opportunities to address maintenance needs specific to people walking, rolling, and biking so that multimodal connections remain usable.
- **Policy MO.3.2**: Create a robust transportation system that allows people to choose between many reliable and accessible transportation options, instead of needing to rely on a single option.
  - **Strategy MO.3.2.1**: Provide safe and reliable access to transit throughout the day, not just during peak travel times.
  - **Strategy MO.3.2.2**: Provide safe, easy, and comfortable connections between transportation providers, both public and private.
  - **Strategy MO.3.2.3**: Create programs that help to increase the use of walking, rolling, biking, and transit to spread demand across the system.

Objective MO.4: Maintain or improve travel reliability for movement of goods and access to services.

- **Policy MO.4.1**: Plan and develop an integrated transportation system that allows businesses to choose among affordable and reliable transportation options to connect goods and services with people and other businesses.
  - **Strategy MO.4.1.1**: Establish freight networks and facilities, user fees, and incentives so carriers and shippers are able to choose the safest, most reliable, and lowest-impact mode for the trip and achieve reliable deliveries in urban and rural areas, including by use of truck, rail, marine, and air freight options.

    - **Strategy MO.4.1.2**: Make investments that enable safe movement and delivery of goods, considering appropriate access for freight vehicles, availability of truck parking, and driver amenities.
- **Policy MO.4.2**: Advance transportation solutions that improve reliable movement along intercity corridors (e.g., intelligent transportation systems (ITS), and bus and freight vehicle priority).
    - **Strategy MO.4.2.1**: In urban areas, implement context-sensitive solutions such as shared transit- and freight-only lanes to help freight move through congested areas and support transport of goods to market. Implement curbside management strategies and timed access when warranted to minimize conflicts.
    - **Strategy MO.4.2.2**: Enable freight to move by the least polluting means whenever possible: support transfer and transloading facilities when appropriate, support use of rail facilities, and support links to marine freight travel.
    - **Strategy MO.4.2.3**: Reserve space within existing rights-of-way for future high-capacity transit per locally and regionally adopted plans.
- **Policy MO.4.3**: Systematically address barriers to efficient freight movement on roads and highways and at intermodal connections.
    - **Strategy MO.4.3.1**: Identify freight bottlenecks and identify solutions that support improved freight travel times and reliability, while minimizing the potential for increased passenger VMT.
    - **Strategy MO.4.3.2**: Address freight barriers through innovative solutions that result in safe access for all people and freight.
    - **Strategy MO.4.3.3**: Coordinate convenient and reliable intermodal connections, and interoperability among carriers so goods can easily move between modes and places.

Objective MO.5: Tailor transportation solutions to the local context, allowing for different solutions to achieve OTP goals in rural, suburban, and urban communities.

- **Policy MO.5.1**: Apply a context- and performance-based approach to planning and designing roadways to integrate flexibility, enhance intermodal connections, and improve user experience and safety.
    - **Strategy MO.5.1.1**: Establish design standards appropriate for the following land use contexts:
        - Traditional Downtown/Central Business District
        - Urban Mix, Commercial Corridor
        - Residential Corridor
        - Suburban Fringe

        - Rural Community
        - Rural
    - **Strategy MO.5.1.2**: Apply roadway design elements appropriate to the land use context, with dimensional standards addressing the pedestrian and transition realms (including bicycle lanes, shoulders, and on-street parking).
    - **Strategy MO.5.1.3:** Preserve the multimodal people- and freight-moving capacity of transportation corridors, while making enhancements and accommodations that enable safe use and, above all else, prevent fatalities and serious injuries.
    - **Strategy MO.5.1.4**: Invest in off-street walking and biking regional paths to enable more safe, comfortable, and direct connections between destinations.
- **Policy MO.5.2**: Plan for and implement transportation investments that are consistent with and supportive of local, regional, and state transportation and land use plans.
    - **Strategy MO.5.2.1**: In communities' urban areas, support compact development and climate-friendly areas, ensuring safe, affordable, reliable, and equitable access to destinations including jobs, education, healthy food, services, health care, and recreation.
    - **Strategy MO.5.2.2**: Consider land use context, modal function, roadway classification, and anticipated users to determine modal priorities and anticipated users on a project-by-project basis. For example, there will be freight needs to deliver products to businesses in a CBD. Even if freight is a lower consideration compared to people walking, rolling, and biking, project-level access needs should still be considered.
    - **Strategy MO.5.2.3**: Determine the roadway design by responding to the land use context to better understand the anticipated users and identify appropriate consideration for each of them. Table 1 shows the relative need of each user type to influence planning and design decisions in the different land use contexts.
    - **Strategy MO.5.2.4**: Use special districts and appropriate design guidelines to support local goals and to ensure that travel for people walking, rolling, and biking is safe and encouraged within cities and towns.
    - **Strategy MO.5.2.5**: Use modal classifications and appropriate design guidelines to enable long-distance and freight trips in support of state and regional goals.

Table 1. General Modal User Type Consideration in Different Contexts

Land Use Context	Relative Need for a Road User Type to Influence Planning and Design Decision for Each Context*				
	Motorist	Freight Movement	Transit Rider	Person Biking	Person Walking or Rolling
Traditional Downtown/ Central Business District	Low	Low	High	High	High
Urban Mix	Medium	Low	High	High	High
Commercial Corridor	High	High	High	Medium	Medium
Residential Corridor	Medium	Medium	Low	Medium	Medium
Suburban Fringe	High	High	Varies	Low	Low
Rural Community	Medium	Medium	Varies	High	High
Rural	High	High	Low	Medium	Low

**Will vary depending on route designations (e.g., freight route, scenic bike route, etc.)*

Objective MO.6: Integrate emerging transportation technologies into transportation services and facilities.

- **Policy MO.6.1**: Advance ITS and related technologies to improve safety and reliability and manage congestion in all areas of the state.
- **Policy MO.6.2**: Leverage shared mobility services and technology solutions to effect mode choice and travel behavior.
    - **Strategy MO.6.2.1**: Promote shared electric mobility services (e.g., electric vehicle, carshare, and e-bikeshare).
    - **Strategy MO.6.2.2**: Enable, incentivize, and support the transition of vehicles to electric or other low- or zero-emission options across all modes so that every mile traveled is clean.
    - **Strategy MO.6.2.3**: Provide traveler information and support software that enables people to understand and explore their multimodal travel options, including sharing rides through tools such as Get There Oregon.
    - **Strategy MO.6.2.4**: Foster development of mobility hubs, which are strategically co-located spots that enable people to access multiple, integrated travel options (including transit, micromobility, and shared travel modes).

6.4 Stewardship of Public Resources

Goal SP

Guided by open, data-driven decision-making processes, secure sufficient and reliable revenue for transportation funding and invest public resources to achieve a resilient and sustainable multimodal transportation system.

Objectives

- **SP.1**: Create sufficient, reliable, and sustainable revenue for transportation funding and meet goals of this plan.
- **SP.2**: Strategically align program, capital, and operational investments with OTP goals.
- **SP.3**: Collaborate and plan across and between agencies and service providers.
- **SP.4**: Manage and deliver projects and programs with an approach that is adaptive and effective.
- **SP.5**: Conduct decision-making and public involvement in a transparent and open manner.
- **SP.6**: Increase the resiliency of the transportation system to better withstand and recover from the anticipated impacts of climate change, extreme weather, seismic and other natural disasters, and adapt to changing needs.

The Big Ideas

- Secure sustainable and reliable funding.
- Align investments and disaster recovery with OTP goals.
- Deliver results.
- Collaborate and break down silos.
- Emphasize open, data-driven decision-making.
- Leverage limited public resources through partnerships.
- Prepare for the effects of a warming climate.
- Plan for resiliency to recover from disasters and disruption.

Objective SP.1: Create sufficient, reliable, and sustainable revenue for transportation funding and meet goals of this plan.

- **Policy SP.1.1**: Develop a reliable funding structure that addresses transportation needs and closes funding shortfalls for all modes of the transportation system by regularly

updating and adjusting funding sources and strategies to respond to inflation, need, future trends, and technological and societal change.

  - **Strategy SP.1.1.1**: Index transportation fees and administrative costs for inflation.
  - **Strategy SP.1.1.2**: Reevaluate all transportation fees regularly based on performance measures for sufficiency of system and services.

- **Policy SP.1.2**: Pursue road user revenue streams that help to cover costs and are sustainable, resilient, and reliable in supporting the multimodal transportation system.
  - **Strategy SP.1.2.1**: Establish a set of road user fees that represents a fair, transparent, user-based roadway pricing system that encourages efficient use of the system by reflecting both drivers' use and the cost they impose on the transportation system and society. The set of fees should include, but is not limited to, the following components:
    - **Road usage charges** will charge people driving vehicles for each mile driven, ensuring all vehicle users pay for their actual use of the roads, regardless of whether they pay fuels tax.
    - **Weight-based charges** ensure that people driving medium and heavy vehicles pay their fair share for their disproportionate wear and tear on roads; this principle of cost responsibility is enshrined in Oregon's constitution.
    - **Tolls** should be implemented to charge users for their use of specific infrastructure to manage congestion and to pay for projects, particularly those that are high cost and include elements that improve the roadway consistent with the State's Tolling Policy.
    - **Congestion charges** will charge people higher prices for highly used portions of the system at peak times to pay for projects, reduce travel and congestion, and incentivize use of other modes or travel at less congested times, when prices would be lower. Implement congestion charges in a manner that does not disproportionally burden people experiencing low income.
    - **Carbon charges** will charge people for emitting carbon and other pollution.
- **Policy SP.1.3**: Pursue new and expand current revenue resources to create an integrated multimodal transportation system.
  - **Strategy SP.1.3.1**: Increase rates and fees to more fully cover costs of building, maintaining, and managing the transportation system.
  - **Strategy SP.1.3.2**: Ensure administrative costs are fully covered by revenue-generating programs.

- **Strategy SP.1.3.3**: Work with the Oregon Legislature to expand revenue options and flexibility for multimodal transportation systems and services, creating a larger and more diverse portfolio of revenue.
- **Strategy SP.1.3.4**: Create a statewide task force to develop new, creative, and equitable transportation revenue to close the gap between available revenue and future needs, and to provide the predictability Oregon needs to make long-term investments for all modes, systems, and services.
- **Strategy SP.1.3.5**: Provide local governments additional options to generate revenue for local system improvements.
- **Strategy SP.1.3.6**: Retain, simplify, and increase existing revenue-generating programs from driver and motor vehicle fees and motor carrier taxes and fees while developing new ones.
- **Strategy SP.1.3.7**: Develop partnerships that monetize or otherwise leverage transportation assets such as mobility data and public right-of-way to generate revenue, services, and other benefits; this can include partnerships that use right-of-way for broadband deployment, energy production, and environmental services.
- **Strategy SP.1.3.8**: Build upon private sector, national or regional government programs, and academic institutions as project partnerships to explore new and innovative financing mechanisms especially for efforts that harness new technology or address a pressing societal change.
- **Strategy SP.1.3.9**: Develop and promote value capture strategies (e.g., tax increment financing, special assessments, and joint development) to recoup the value added by public investments in the transportation system.
- **Strategy SP.1.3.10**: Identify revenue sources to support public transportation options and create an integrated multimodal system.
- **Strategy SP.1.3.11**: Structure revenue-generating programs so that they enable the goals of this plan to be achieved by increasing or decreasing rates, or providing subsides that support equity, access, climate, or other outcomes.

- **Policy SP.1.4**: Be intentional and inclusive when engaging communities in revenue-generating programs to gain better outcomes, public acceptance, and understanding, and to advance equity priorities.
  - **Strategy SP.1.4.1**: Prioritize fair and equitable payment by, and/or other mitigations for, low- and middle-income Oregonians and those who do not have any feasible alternatives to multimodal travel options—whether at the state, local, or regional level.
  - **Strategy SP.1.4.2**: Consider the impacts of roadway pricing on freight and delivery vehicles when developing a user-based roadway pricing program.

Increasing the cost of goods movement can increase the cost for consumers, and truck freight carriers typically do not have feasible alternatives.

- **Strategy SP.1.4.3**: Ensure user-based pricing programs consider the impacts on rural and tribal communities throughout the state, who typically travel farther distances and have limited access to non-auto transportation options.
- **Strategy SP.1.4.4**: Develop a user-based system accompanied with a comprehensive customer service program to understand customer needs, improve customer awareness, and provide efficient and reliable information for the public.
- **Strategy SP.1.4.5**: Include statutory protections and user choices in any road user fee system to address privacy and data security concerns and ensure the system does not expose personal information.
- **Strategy SP.1.4.6**: Provide ongoing public information and education about transportation needs and funding alternatives. Enhance public understanding about the benefits of transportation investments and the adverse consequences on the economy, livability, congestion, and overall attractiveness of the state when the transportation system no longer functions in parts or as a whole.

Objective SP.2: Strategically align program, capital, and operational investments with OTP goals.

- **Policy SP.2.1**: Support the movement of goods and people through strategic investment of limited resources that benefit the distribution of travelers and equitable access, and support transportation options that meet the needs of the users of the transportation system.
    - **Strategy SP.2.1.1**: Develop transportation plans and investments to focus on the most cost-effective, resilient, equitable, and carbon-responsible modes and solutions over the long term. Utilize the following considerations when setting priorities and making decisions to balance how needs are addressed across all tiers, emphasizing the top needs on down:[1]
        - Top tier:
            - Address fatalities and serious injuries
            - Maintain and preserve critical assets, key corridors, and critical lifeline routes.

[1] The tiers are designed to recognize that, for example, not all safety needs can be met at the same time and emphasis should be placed on addressing fatalities and serious injuries. This does not preclude investments or projects that focus on other safety issues (second tier) or comfort features (third tier) that will still be needed based on individual project context and needs. The tiers help to signal the areas to emphasize most, but not at the exclusion of investments in lower-level tiers.

- Add critical bikeway and walkway connections in "high need locations" (i.e., transportation- disadvantaged areas and surrounding schools, shopping, employment centers, medical services, connections to transit, and downtowns).
- Preserve current public transportation service levels and maintain a state of good repair for vehicles and facilities.

▪ Second tier:

- Address contributing factors and reduce the severity of crashes and safety incidents.
- Maintain the broader transportation system and assets.
- Complete the active transportation network.
- Improve the efficiency, frequency, and reliability of public transportation services.
- Improve the efficiency and capacity of existing transportation infrastructure and facilities through operational improvements to the existing system, for the movement of people and goods.

▪ Third tier:

- Increase users' sense of safety and comfort.
- Expand public transportation services and fleet, and add new facilities, identified and prioritized at the regional level.
- Add other new capacity and facilities to the existing transportation system.

o **Strategy SP.2.1.2**: Regularly assess transportation assets that are underperforming relative to cost of operations to identify facilities and services that could be disinvested in, or have ownership transferred, as a way to reduce maintenance costs and focus investment funds.

- **Policy SP.2.2**: Maximize the useful life and minimize the life-cycle cost of transportation assets—including roads, bridges, tunnels, signals, sidewalks, fleet vehicles, and transit vehicles and facilities.
  - **Strategy SP.2.2.1**: Responsibly manage and maintain transportation assets to keep the transportation networks safe and reliable over the long term, including in periods of disruption.
  - **Strategy SP.2.2.2**: Design new or reconstructed facilities so that system vulnerabilities and life-cycle costs are reduced.
  - **Strategy SP.2.2.3**: Incorporate asset management principles into planning, investment, capital construction, maintenance, and operations decisions.

- **Strategy SP.2.2.4**: Adopt redundant, secure, and open-source technology (e.g., electric vehicle charging stations) to avoid the technology becoming obsolete long term.

Objective SP.3: Collaborate and plan across and between agencies and service providers.

- **Policy SP.3.1**: Collaborate with tribal governments, federal and state agencies, regional and local governments, and private entities to remove barriers to transportation system performance and facilitate seamless multimodal travel across jurisdictional boundaries.
  - **Strategy SP.3.1.1**: Collaborate with agencies, beyond the traditional transportation agencies, that are involved in and affected by transportation, such as Oregon's nine federally recognized tribes, Veterans Affairs, and school districts.
  - **Strategy SP.3.1.2**: Coordinate across agencies to align tribal, federal, state, regional, and local transportation goals and priorities.
- **Policy SP.3.2**: Establish partnerships with transportation service providers and private entities to improve transportation facilities and service delivery.
  - **Strategy SP.3.2.1**: Foster public-private partnerships to support development of vehicle charging and fueling infrastructure for electric and other zero-emission fuels, shared micromobility program launch and management, and statewide broadband access.
  - **Strategy SP.3.2.2**: Plan to manage risks to public investments associated with turnover in the transportation technology sector.
- **Policy SP.3.3**: Break down silos between transportation and housing, economic development, public health, and other public-focused fields.
  - **Strategy SP.3.3.1**: Coordinate across state agencies (including the Department of Land Conservation and Development, Oregon Department of Environmental Quality, Oregon Health Authority, and others), and with local and regional agencies, to leverage shared investments to achieve goals of the State of Oregon and the OTP.
  - **Strategy SP.3.3.2**: Collaborate with agencies and private partners to maintain public access to, and safety on, transportation facilities while supporting the dignity and safety of houseless people when relocation is necessary.

Objective SP.4: Manage and deliver projects and programs with an approach that is adaptive and effective.

- **Policy SP.4.1**: Develop, train, and retain a skilled transportation workforce required to meet the long-term needs and challenges facing transportation.
  - **Strategy SP.4.1.1**: Build a diverse workforce that mirrors the diversity of the people served by the transportation agencies in Oregon.

    - **Strategy SP.4.1.2**: Support the diverse workforce with equitable operations and policies and establish an informed culture that delivers authentic inclusivity.
    - **Strategy SP.4.1.3**: Support training, apprenticeship, technical skills development, and career growth opportunities to develop and retain a skilled workforce.
- **Policy SP.4.2**: Apply a practical design engineering approach to transportation problems to address community needs and ensure system reliability and resiliency.
    - **Strategy SP.4.2.1**: Apply adopted roadway design standards in a way that acknowledges the unique characteristics of each situation.
    - **Strategy SP.4.2.2**: Encourage incremental, flexible, and sustainable investment decisions by focusing on identified performance needs and engaging stakeholders.
    - **Strategy SP.4.2.3**: Determine needs and develop investment strategies to manage system assets to appropriate service levels.
- **Policy SP.4.3:** Support the ongoing transactions and customer services that impact the ability of people and businesses to travel or do work on the transportation system, including issuance of licenses, registrations, and permits, as well as maintenance services.
    - **Strategy SP.4.3.1**: Align provision of transportation customer service functions with funding and resource constraints, prioritizing access and support for the greatest number of users and in critical locations.
    - **Strategy SP.4.3.2**: Communicate with the public on anticipated transportation service levels to help level-set customer expectations and experiences.

Objective SP.5: Conduct decision-making and public involvement in a transparent and open manner.

- **Policy SP.5.1**: Make decisions through transparent processes that are inclusive, engaging, and supported by data and analysis.
    - **Strategy SP.5.1.1**: Promote open data policies that enhance transparency and public trust.
    - **Strategy SP.5.1.2**: Use both demographic analysis and stakeholder input to aid decision-making.
    - **Strategy SP.5.1.3**: Systematically collect up-to-date transportation data that can be reasonably and appropriately acquired and managed for data-driven evaluation of programs and investments and support decision-making.
    - **Strategy SP.5.1.4:** Provide data and project information to stakeholders and the public in a usable and easily accessible way.
- **Policy SP.5.2**: Define an open decision-making process based on accountability, transparency, and communication, and make clear how public input influences decision-making.

- **Strategy SP.5.2.1**: For each decision-making process, define the public's role (e.g., inform, consult, involve, collaborate, or empower).
- **Strategy SP.5.2.2**: Build capacity for public engagement within communities by building relationships with and investing in community-based organizations.
- **Strategy SP.5.2.3**: Offer compensation to participants in public engagement processes to add the perspectives and voices of those who are otherwise unable to participate.

Objective SP.6: Increase the resiliency of the transportation system to better withstand and recover from the anticipated impacts of climate change, extreme weather, seismic and other natural disasters, and adapt to changing needs.

- **Policy SP.6.1**: Leverage transportation investments to support community health and increase community resilience to chronic climate change impacts.
  - **Strategy SP.6.1.1**: Reinforce each community's cohesion and resulting ability to respond to and recover from challenges.
  - **Strategy SP.6.1.2**: Seek to mitigate the transportation system's role in the differing social, economic, public health, and other adverse effects of climate change on people throughout the state, particularly for systemically excluded or underserved populations (populations with high numbers of BIPOC, people experiencing low income, people living with one or more disabilities, seniors, youth, and rural residents), who are likely to face the worst effects of climate change. For example, seek to reduce exposure of people traveling by walking, rolling, biking, or taking transit to heat-related illness, and prioritize investment in lifeline routes that intersect with systemically excluded or underserved populations.
  - **Strategy SP.6.1.3**: Identify opportunities to address the public health hazards of social isolation and poor air quality.
- **Policy SP.6.2**: Identify modal and multimodal lifeline routes to facilitate evacuation and recovery during and after a disaster, as well as to proactively prepare routes as best as possible to withstand multiple hazards before an event occurs.
  - **Strategy SP.6.2.1**: Map and assess multi-hazard threats to the transportation system, including extreme precipitation, sea level rise, wildfires, extreme heat, and seismic events.
  - **Strategy SP.6.2.3**: Identify route redundancies and detour options across the state and local transportation systems.
  - **Strategy SP.6.2.4**: Implement the Climate Adaptation and Resilience Roadmap and results from the Seismic Lifeline Study to enhance transportation system resilience. The Climate Adaptation and Resilience Roadmap, accepted by the

Oregon Transportation Commission in January 2023, is incorporated herein by reference and also serves as the Department's Resilience Improvement Plan (as defined in Section 11405 of the Federal Infrastructure Investment and Jobs Act [2021]).

  - **Strategy SP.6.2.5**: Ensure sufficient alternative fuel station resilience, supply, and density to support emergency evacuation scenarios and routes.

- **Policy SP.6.3**: Incorporate pre-disaster mitigation to improve the resilience of Oregon's transportation system, prepare for long-term recovery and reconstruction efforts, mitigate future hazards, and adapt to changing climate conditions.
  - **Strategy SP.6.3.1**: Seek federal authorization to use Metropolitan Planning Organizations for disaster/resiliency planning at a regional level.
  - **Strategy SP.6.3.2**: Ensure transportation provider operations and communications are prepared for future disruptions due to climate change, extreme weather, and seismic events.
  - **Strategy SP.6.3.3**: Integrate natural lands, resources, ecosystem protection, and nature-based strategies into resilience planning.
  - **Strategy SP.6.3.4**: Incorporate statewide seismic risk assessments into project planning, prioritization, and implementation.

6.5 Safety

Goal SA

Enable safe travel for all people, regardless of their age, ability, race, income, or mode of transportation.

Objectives

- **SA.1**: Implement a holistic, proactive approach to system safety that eliminates the occurrence of people being killed or seriously injured on the transportation system by anticipating human mistakes, and recognizing the vulnerability of people on the road.
- **SA.2**: Provide transportation systems and facilities that are safe and secure for people to use, maintain, and operate.
- **SA.3**: Leverage data and technology to document and reduce fatal and serious injury crashes.

The Big Ideas

- All decisions should place a high priority on the safety of people and saving lives.
- Safety measures should achieve equitable outcomes.
- All people should feel the same level of safety, security, and belonging on our transportation system.
- Technology and data should be leveraged to identify and prioritize safety needs, and enhance roadway safety.

Objective SA.1: Implement a holistic, proactive approach to system safety that eliminates the occurrence of people being killed or seriously injured on the transportation system by anticipating human mistakes, and recognizing the vulnerability of people on the road.

- **Policy SA.1.1**: Identify safety solutions that eliminate fatalities and serious injuries while curbing vehicle emissions and leading to equitable outcomes.
    - **Strategy SA.1.1.1**: Give primacy to safety solutions that address fatalities and serious injuries while:
        - Not increasing vehicle emissions, except when no other safety countermeasure is determined to be effective.
        - Identifying safety solutions that maintain access for all modes when possible.
    - **Strategy SA.1.1.2**: Implement safety solutions and prioritize investments that reduce fatalities and serious injuries across Oregon, recognizing the disproportionate risk faced by systematically excluded or underserved populations (populations with high numbers of BIPOC, people experiencing low income, people living with one or more disabilities, seniors, youth, and rural residents), as well as those who walk, roll, or bike.
- **Policy SA.1.2**: Plan, design, construct, operate, and maintain the transportation system to reduce speed differentials on roadways; provide context-appropriate physical and temporal separation between different modes of travel.
    - **Strategy SA.1.2.1**: Reduce the potential severity of crashes in the event of user error by applying proven countermeasures, including lighting, physical separation, staggered signal phasing, and context-specific speed management techniques.
    - **Strategy SA.1.2.2**: Implement safety programs that address impacts related to disruptions (e.g., construction, maintenance, and utility work). Programs include addressing worker safety in work zones; safe pedestrian, bike; and motor vehicle detours, and freight access routes.
    - **Strategy SA.1.2.3**: Maintain signal and signage systems so those elements continue to be effective in reducing crash severity.
- **Policy SA.1.3**: Develop and implement safety education, enforcement, and emergency service programs, policies, and projects with a primary goal of eliminating the occurrence of people being killed or seriously injured.
    - **Strategy SA.1.3.1**: Develop programs that promote safe driver behavior throughout people's lives—not just when a driver's license is received.
    - **Strategy SA.1.3.2**: Adopt safety messaging across all agencies to reflect human fragility and the principles of a Safe Systems approach so that transportation

safety is integrated into everyday decision-making for the public (individual drivers, passengers, and people walking, rolling, and biking).

- **Strategy SA.1.3.3**: Support training for first responders so they are able to respond to transportation-related crashes and other medical emergencies fully equipped and in a timely manner.
- **Strategy SA.1.3.4**: Implement equitable and evidence-based enforcement of rules and laws (e.g., traffic laws, truck weight restrictions, and railroad laws) intended to prevent the occurrence of people being killed or seriously injured while using the transportation system.
- **Strategy SA.1.3.5**: Recognize inherent bias exists in the enforcement process and contributes to additional risk to BIPOC individuals. Support training programs to mitigate bias.
- **Strategy SA.1.3.6**: Develop programs to help people transition as travelers through all phases of life safely, for example, transitioning from being an able-bodied driver to a transit-dependent rider.

Objective SA.2: Provide transportation systems and facilities that are safe and secure for people to use, maintain, and operate.

- **Policy SA.2.1**: Minimize risk of personal harm to people using outdoor transportation facilities in the public realm (e.g., off-street trails; mobility hubs; park-and-rides; transit centers, stops, and stations; rest areas, charging stations; bike parking) and to vulnerable people by providing personal security measures (e.g., lighting, sanitation, cameras, and emergency call boxes).
  - **Strategy SA.2.1.1**: Develop best practices that improve security for bikes and e-bikes parked or charged in the public realm.
  - **Strategy SA.2.1.2**: Ensure trail safety by encouraging trail use and keeping trails well maintained and designed for good visibility.
- **Policy SA.2.2**: Develop and implement strategies to make public transportation safe and free of violence. This includes the ability to ride transit without having to worry about one's physical safety, and without being threatened or harassed.
  - **Strategy SA.2.2.1**: Increase transit agency presence to help create a sense of community and safety on transit systems.
  - **Strategy SA.2.2.2**: Evaluate the effects of enforcement responses to fare evasion, homelessness, and mental health crisis.
  - **Strategy SA.2.2.3**: Collect and share data on use of force within the transit system, with the intent of ensuring best efforts are being made to reduce the need for such incidents and ensure systemic biases are not negatively impacting certain riders.

Objective SA.3: Leverage data and technology to document and reduce fatal and serious injury crashes.

- **Policy SA.3.1**: Make strategic investments in analytics and data science capacity to support safety improvements for transportation-vulnerable people (paying particular attention to systemically excluded or underserved populations), improve overall safety outcomes, and enhance reporting processes.
    - **Strategy SA.3.1.1**: Use data to proactively identify high risk locations, situations, and conflict points so agencies can implement safety measures before people get hurt.
    - **Strategy SA.3.1.2**: Develop and maintain state-of-the-practice safety equity metrics.
    - **Strategy SA.3.1.3**: Collect, share, and use crash data to understand and reduce the risks and demonstrate the benefits of low-carbon modes of travel.
    - **Strategy SA.3.1.4**: Develop a process to ensure more accurate and thorough reporting of crashes and injuries involving people walking, rolling, and biking.
- **Policy SA.3.2**: Explore opportunities to deploy and promote emerging technologies that support safety of all people traveling.
    - **Strategy SA.3.2.1**: Develop policies and strategies to address technical innovations in emergency management in a way that is scalable.
- **Policy SA.3.3**: Support integration and linkage of data sources across multiple domains, programs, and data systems hosting safety-relevant data.
    - **Strategy SA.3.3.1**: Source and provide technical support to ensure cybersecurity and data privacy throughout the system.
- **Policy SA.3.4**: Support a managed approach to the adoption and safe use of connected and automated vehicles.
    - **Strategy SA.3.4.1**: Develop operational plans that reduce the risk of people making mistakes by supporting deployment of vehicle-to-infrastructure technologies with compatible communications and system platforms used for vehicle-to-vehicle technologies that.
    - **Strategy SA.3.4.2**: Regulate level 3 and higher automated vehicles (automated driving functions) by requiring special driver license endorsements or certifications to increase their safe operation.
    - **Strategy SA.3.4.3**: Seek and secure public-private partnerships that enable sharing of proprietary, anonymized, real-time operations, and travel behavior data to inform investments that will improve connected/automated driving safety.

6.6 Sustainability and Climate Action

Goal SC

Minimize transportation's negative role in climate change by reducing greenhouse gas (GHG) emissions for all sectors of transportation, while also reducing air toxics, noise pollution, water toxics, and habitat loss.

Objectives

- **SC.1**: Achieve state goals for reducing GHG emissions.
- **SC.2**: Preserve and improve the quality of Oregon's water, air, and natural ecosystems.

The Big Ideas

- Achieve statewide GHG emissions reduction targets.
- Reduce per capita VMT for passenger vehicles.
- Transition to cleaner vehicles and fuels.
- Increase energy efficiency.
- Protect the natural environment.

Objective SC.1: Achieve state goals for reducing GHG emissions.

- **Policy SC.1.1**: Implement the Oregon Statewide Transportation Strategy (STS) to realize statewide GHG emissions reduction targets.
    - **Strategy SC.1.1.1**: Close the gap in existing plans, trends, policies, and investments to achieve the STS vision, working across tribes, state agencies, local jurisdictions, and the private sector to:
        - Transition to low- and no-emission vehicles and fuels, with a focus on transportation electrification for all types of vehicles, and also alternative fuels for public transportation buses and freight trucks.
        - Expand availability and use of low- and no-emission transportation options such as walking, rolling, biking, and public transportation, and implement transportation demand management strategies such as employer programs, teleworking, and carpooling.

        - Price the transportation system to manage demand across modes, supporting greater use of no-emission travel choices, and providing sustainable funding to support needed investments aligned with the STS.
        - Improve systems operations and performance to reduce stops-and-starts and idling, and limit road expansion.
        - Make land use more efficient by controlling urban growth and creating more compact and mixed-use development, such as climate-friendly areas that support jobs and amenities closer to residences and therefore enable shorter trips that can be made by walking, rolling, biking, or public transportation.
    - **Strategy SC.1.1.2**: Work toward zero emissions from the freight sector by reducing idling, transitioning to low- and no- emission fuels, enhancing the availability and efficiency of lower-carbon freight modes, and locating distribution centers near interstates and highways to enable local medium-duty electric vehicle delivery of goods.
    - **Strategy SC.1.1.3**: Develop systems to continuously monitor and regularly report on STS progress, and update and adjust STS strategies and trajectories to mirror the pace of change in new technologies, scientific findings, and data availability.
- **Policy SC.1.2:** Enable broad electrification of the transportation system.
    - **Strategy SC.1.2.1**: Support transportation electrification of all modes, including: micromobility (electric bikes and scooters), light vehicles (cars and trucks), and medium- and heavy-duty vehicles (commercial freight trucks and transit buses).
    - **Strategy SC.1.2.2**: Identify charging infrastructure needs to meet state goals and Clean Car regulations, and develop deployment strategies.
    - **Strategy SC.1.2.3**: Designate and build out an alternative fuel corridor of electric vehicle charging stations comprising a backbone north-south and east-west network across major routes in Oregon.
    - **Strategy SC.1.2.4**: Ensure equitable access to charging infrastructure, with focused investments in rural areas, adjacent to multi-unit dwellings, and in communities of systemically excluded or underserved populations (populations with high numbers of BIPOC, people experiencing low income, people living with one or more disabilities, seniors, youth, and rural residents).
    - **Strategy SC.1.2.5**: Partner with tribes, state agencies, local governments, utilities, electric vehicle service providers, and the private sector on the planning, development, and maintenance of charging stations across Oregon.
- **Policy SC.1.3**: Support transition to low-carbon fuels for fleets and sectors that are slower to or cannot yet electrify.

  - **Strategy SC.1.3.1**: Develop an interstate network of alternative fuel stations through cross-agency coordination and collaboration at the state, regional, and local levels, as well as with neighboring states.
  - **Strategy SC.1.3.2**: Make alternative fuel infrastructure investments in areas without access to alternative fuels, beginning with systemically excluded or underserved populations.
  - **Strategy SC.1.3.3**: Partner with the freight sector to determine likely alternative fuel paths (e.g., electric or hydrogen) and develop refueling infrastructure accordingly and in support of achieving state Clean Truck regulations.
  - **Strategy SC.1.3.4**: Rapidly transition public transportation fleets that are not transitioned to electric to low-emission fuels, such as hydrogen or compressed natural gas.
  - **Strategy SC 1.3.5**: Reduce the emissions related to people making intercity and interstate trips by supporting operations of passenger rail and advancements in low-emission air travel.
- **Policy SC.1.4**: Meaningfully incorporate GHG emissions reduction in transportation decision-making.
  - **Strategy SC.1.4.1**: Implement a funding allocation framework and project prioritization process that evaluates the impact of investments on GHG emissions and results in total spending that reduces GHG emissions to meet STS and state goals.
  - **Strategy SC.1.4.2**: Update project cost/benefit analysis methodologies to consider life-cycle costs; the social cost of carbon (an estimate of the economic costs, or damages, of emitting one additional ton of carbon dioxide into the atmosphere); embedded carbon and climate change impacts and benefits; cost of maintenance, including damage and repair due to expected natural disasters; anticipated future conditions in a warming world (e.g., consider future anticipated precipitation, not just historical trends); and benefits to the public when less maintenance and repair is required.
  - **Strategy SC.1.4.3**: Reduce emissions in the provision and operations of transportation services including lighting, energy use, buildings, and fleet vehicles.
  - **Strategy SC.1.4.4**: Transition to low-carbon materials and fuels in project construction and maintenance.
  - **Strategy SC.1.4.5**: Evaluate the impacts of climate change on BIPOC communities and people experiencing low income in programmatic and project-level decisions.
- **Policy SC.1.5**: Develop and implement a long-range plan for increasing energy efficiency and moving toward a diversified and decarbonized energy supply in collaboration with

federal, state, regional, and local jurisdictions and agencies, as well as transportation providers, shippers, and the general public.

- **Strategy SC.1.5.1**: Identify and implement opportunities for businesses to use transportation modes that are energy efficient.
- **Strategy SC.1.5.2**: Identify and implement energy-efficient construction and maintenance practices.

Objective SC.2: Preserve and improve the quality of Oregon's water, air, and natural ecosystems.

- **Policy SC.2.1**: Require siting, design, and development of new and reconstructed transportation infrastructure to reduce the impact on environmentally sensitive areas; enhance and avoid the degradation of the natural environment; and protect water, air, and wildlife.
  - **Strategy SC.2.1.1**: Plant trees and vegetation in public rights-of-way through applying practical solutions and context-sensitive strategies that effectively integrate climate goals while ensuring that plantings maintain the visibility and safety of transportation system users and are appropriate for the environment and future hazard risks (e.g., are drought-resistant or do not increase wildfire danger).
  - **Strategy SC.2.1.2**: In the construction and maintenance of transportation infrastructure and facilities, reduce the consumption of nonrenewable construction materials and promote their efficient use and reuse.
  - **Strategy SC.2.1.3**: Identify and implement water- and energy-efficient construction and maintenance practices.
  - **Strategy SC.2.1.4**: Minimize and mitigate harms to sensitive fish and wildlife species, for example by providing space for terrestrial animal movement along habitat corridors.
- **Policy SC.2.2**: Provide a transportation system that is environmentally responsible and encourages conservation and protection of natural resources.
  - **Strategy SC.2.2.1**: Create transportation systems compatible with native habitats and species and help restore ecological processes.
  - **Strategy SC.2.2.2**: Where adverse impacts cannot reasonably be avoided, minimize or mitigate their effects on the environment.
- **Policy SC.2.3**: Minimize transportation contributions to local airshed quality, prioritizing the most affected low-income communities.
  - **Strategy SC.2.3.1**: Ensure that the impacts of pollution are not disproportionately borne by systemically excluded or underserved populations (populations with high numbers of BIPOC, people experiencing low income, people living with one or more disabilities, seniors, youth, and rural residents).

Implementation and Investments

7 Implementation and Investment Strategies

7.1 Implementation and Investment Strategies Overview

The OTP is the highest-level policy document for transportation planning in the State of Oregon. Implementation of this plan affects statewide and local plans, as well as influences programs, investments, and how the transportation system is managed. The OTP outcomes are built on three primary means of implementation: Policy, Programs, and Investments (Figure 3).

Figure 3. Oregon Transportation Plan policy outcomes are supported by policy, programs and investments

Oregonians must work together to develop and fund a transportation system that meets future challenges we will face in the coming decades. The OTP vision is for an equitable, climate-friendly and safe transportation system that supports our communities, our economy, and our environment. The OTP lays out the framework for making the hard choices through the vision, goals, policies and strategies.

The OTP employed exploratory scenario planning to better understand how effectively the investment packages address the desired policy outcomes defined in Chapter 6. This Implementation and Investment Strategies chapter summarizes roles and responsibilities, key coordination activities, transportation planning consistency actions that implement the OTP, and investment and policy outcome scenarios.

7.2 Cross-Sector Coordination

As the OTP addresses the interconnected transportation network across Oregon, it is critical for transportation agencies and other entities to coordinate across sectors to achieve the desired outcomes in this OTP. This coordination can facilitate OTP implementation. Below is a list of the key integration points across state agencies:

- **Land Use – Transportation Coordination** – The integration of land use and transportation is critical to achieving reductions in GHG emissions and effective transportation options. Understanding of the role of the Department of Land Conservation and Development is an important factor. As the agency addressing land use needs of the public, communities, and the state, Department of Land Conservation and Development provides planning guidance and technical assistance to help local and regional entities plan for their future. Increased mixed of uses and density derives higher transit and bike use, reduced carbon emissions, and provides equitable access to the transportation system for users of all income levels. This will require significant coordination between the multiple government agencies from the state, regional and local levels to promote strong ties between land use and transportation planning and encourage collaboration between private developers and governmental agencies.
- **Energy – Transportation Coordination** – As transportation continues to electrify, the source of electricity plays a bigger role in reducing the transportation sector's climate impact. At the state level, this will require regular coordination between the Department of Energy and ODOT to identify and utilize sustainable energy sources for zero emissions freight, transit, and individual vehicles. This coordination must also continue at the local and regional level through coordination with public utility providers, business organizations, and local governments, and opportunities will likely vary across Oregon where different climate-friendly energy sources may be available.
- **Resiliency and Climate – Transportation Coordination** – Passenger and vehicle emissions are one of the major contributors to GHG in our communities. Meeting climate goals will require changes to transportation technologies and driving behavior. Additionally, climate change and resiliency are changing the very needs of infrastructure, with added emphasis on the emergency ingress and egress needed to combat forest fires and maintain the movement of people and goods, the frequency of landslides, major flooding events, culvert washouts, and bridge repairs. Partnerships among the Department of State Lands, Department of Environmental Quality, and ODOT will help address the impacts of climate change in a unified manner at the state level but must also include regional disaster preparedness organizations, cities and

counties, emergency service providers and civic organizations to properly coordinate the highly integrated nature of the transportation system.

- **Economic and Tourism – Transportation Coordination** – Transportation infrastructure has a major role in supporting business owners, employees, and customers. This includes all modes in all parts of Oregon, as the economy requires an inter-modal connected system to serve the many needs of Oregonians and Oregon businesses, including the movement of freight and commuter and customer access. Oregon's economy also relies on connecting visitors to the state's many attractions. This will require regular coordination between Travel Oregon, Business Oregon, and ODOT to maximize economic potential and wealth creation while providing a positive experience for visitors, and should also include shipper and carrier companies, major businesses and recreational organizations that depend on the transportation system.

7.3 Coordinated Statewide Transportation Planning

7.3.1 Statewide Modal Plans

As the long-range transportation system plan for the state, the OTP functions as the "umbrella plan" over the statewide mode and topic plans such as the Oregon Bicycle and Pedestrian Plan, the Oregon Public Transportation Plan, and the Oregon Transportation Safety Action Plan. The statewide mode and topic plans refine and apply OTP policy to specific modes or topics and guide state, regional, and local investment decisions for the parts of the transportation system that they address. Many statewide modal and topic plans have been updated in recent years. ODOT will reevaluate the most effective way to incorporate OTP policies as future modal and topic plans are considered for updates. Similarly, ODOT will update these plans as federal requirements necessitate amendments. The development of a statewide modal plan must provide opportunities for public engagement in accordance with the State Agency Coordination Program and federal requirements.

7.3.2 Facility Plans

Facility plans provide information for individual transportation facilities including identification of needs, an overall plan for improving the system, and policies for operating the facility. Facility plans include specific area refinement plans, interchange area management plans, and corridor plans. The Oregon Transportation Commission adopts facility plans for the state highway system into the Oregon Highway Plan. ODOT facility plans are expected to implement OTP and applicable modal/topic plan goals, policies, implementation, and broad investment scenarios. Facility plan development must provide opportunities for public engagement in accordance with the State Agency Coordination Program and federal requirements.

7.3.3 Regional and Local Transportation System Plans

Oregon Administrative Rule 660-012, known as the Transportation Planning Rule, prescribes the requirements for regional and local transportation system plans . The Department of Land Conservation and Development issued rules to address statewide mandates for reducing greenhouse gas emissions. This set of rules, known as Climate Friendly and Equitable Communities, outline the requirements for major transportation system plan updates included in Oregon's eight recognized metropolitan areas. Changes resulting from this work are also supportive of the findings of this OTP. As communities update their transportation system plans, OTP policies can be incorporated at the same time as the rulemaking updates issued by Department of Land Conservation and Development. For rural areas and small communities, local Transportation System Plans can use the OTP to help achieve consistency with the OTP,

modal or topic plans, and transportation facility plans. This also helps identify investment priorities for communities across Oregon.

7.4 Scenarios and Investments

The OTP outlines how investments in the transportation system can influence desired policy outcomes. The exploratory scenario planning approach for the OTP identifies the direction and magnitude of specific investment decisions to maximize the likelihood of meeting the OTP vision and goals. This is especially important given the many needs of transportation infrastructure, the limited funding to address those needs and the many drivers of change affecting transportation.

The OTP considers a vast set of possible futures – all influenced by types of investments and policies that are prioritized for funding. The OTP is the guiding document to provide direction for funding in many different investment categories.

Investment Categories

Electrification

ITS and Operations

Active Transportation

Transportation Options

Strategic Additions to Road Networks

Transit

Preservation and Adaptation

7.4.1 Oregon Funding Context and Funding Scenarios

The state's transportation network is complicated, and as such, it receives funding from many diverse sources. However, there are three primary types of sources the state's transportation funding budget is drawn from:

- transportation ownership fees (registrations, inspections, etc.),
- road user fees (VMT taxes, weight and mileage fees, etc.), and
- fuel taxes (potential electricity taxes, gasoline taxes, etc.).

The OTP considered four different funding scenarios to understand what how transportation investments can lead to different policy outcomes and address known needs. Table 2 shows the four funding levels evaluated for different user costs using a cost per mile equivalent basis. The four funding scenarios range from the current ~1.9 cents per mile to a high of 'Blue Sky funding' at 7.6 cents per mile (4x the current level), which accounts for federal, state and local revenue sources. The funding levels provide a wide range of funding scenarios to inform different policy outcomes.

Table 2. Funding Level Scenarios for the Oregon Transportation Plan

Funding Level	Approximate Transportation Budget in 2050 ($2022)
Current	$5.2B
Incremental (+1/3x)	$6B
Major Increase (2x)	$7.2B
Blue Sky (4x)	$10B

Oregon drivers paid $0.38 per gallon in gas tax in 2023. Assuming an average fuel economy of 20 miles per gallon, most vehicles would pay around $0.02 per mile. To support the Blue Sky funding level, a four-times increase in available funding, users would pay closer to $1.14 per mile or a combination of equivalent fees through other sources.

The Blue Sky scenario is the only investment level that addresses the many needs of the transportation system. Given the current gap between needs and available funding, careful consideration of policy trade-offs, potential co-benefits to multiple policy areas and clear prioritization is needed to optimize the balance of policy outcomes. At any particular level of funding, Oregon needs to keep the existing system operating while also making strategic improvements and enhancements to realize the future desired by the state's residents.

7.4.2 Policy Emphasis Areas of Investment Scenarios

The OTP examines outcomes from exploring thousands of possible futures to understand what lead to results that support the plan's vision and goals. The OTP examined 16 scenarios, four different policy influence areas each with four different funding levels. Each of the 16 scenarios evaluated has a different outcome given the particular suite of funding and policy goals that are emphasized. The OTP evaluated four different policy goal emphasis areas, each of which focuses on a different combination of goals:

- **GHG and Equity Priority**. This goal emphasis area seeks to maximize sustainability goals and equitable outcomes through reducing total GHG emissions and reducing transportation costs for households with modest incomes.
- **Travel Time Reliability and Stewardship of Public Resources Priority**. This goal emphasis area seeks to achieve a reliable transportation system and prioritize maintenance and resiliency of the transportation system.
- **Multimodal Travel with Reduced Per Capita VMT Priority**. This goal emphasis area seeks to maximize travel options and reduce VMT per capita through increased walking, biking, and transit investment.
- **Balanced Outcomes – Pursue Goal Outcomes Equally**. This goal emphasis area seeks to achieve an optimized outcome across all policy goal areas.

Given the policy direction of the OTP, all future scenarios reduce GHG emissions, reduce VMT per capita, and reduce vehicle transportation costs for lower income households. They all also increase the amount of funding for Preservation and Adaptation and increase transit and multimodal trip making relative to today. Higher levels of funding increase the availability of funds for transit and Preservation and Adaptation leading to improvements in other outcomes.

7.4.3 Key Findings of Oregon Transportation Plan Scenarios

The future OTP investment scenarios demonstrate investments that can lead to a safer and an increasingly multimodal future with greater use of transit, and increased walking and biking that requires less energy consumption per mile of travel and creates fewer GHG emissions. Congestion will remain; however, travel times and speeds will be more dependable and predictable with fewer nonrecurrent incidents and improved operations using signal timing, ramp meters, and improved vehicle-to-infrastructure communications. Transportation costs will decrease as a portion of a households' income given the growing share of electric vehicles reducing operating costs. Households with lower incomes benefit from improved non-automobile travel options and more widespread availability of transit. The degree to which these things are achieved varies greatly based on the amount of funding available. Current funding levels, for example, are so inadequate that there is little to no progress towards desired OTP outcomes – and in fact results in disinvestments of existing multimodal transportation infrastructure. Several thousand different funding combinations were evaluated to identify the mix of investments that best optimizes climate, equity, safety and state of good repair outcomes. At low funding levels, limited transit and higher costs associated with system preservation and adaptation suggest investing in higher levels of transportation demand management and transportation electrification to best meet OTP goals. However, when funding increases and transit is more widely available and there more investments in system preservation and adaptation, the emphasis on the lower-cost investments to achieve the OTP goals decreases. This is not to say that these investments are not important, but rather the OTP goals can be met through a variety of ways and the OTP provides an approach to optimize investment choices at each budget level. Findings relative to the four investment levels include:

Balanced Outcomes

Due to the interconnected nature if the transportation system, the balanced outcomes scenario best achieves the policy outcomes for Oregon's future.

Blue Sky (4x). The additional funding leads to more investments in transportation and lower overall transportation costs with more equitable outcomes across the state. However, the funding does derive from higher user fees for the system, impacting equity. However. the benefits of the increased funding include a more resilient system, less prone to climate and

natural events, a more reliable system, and a system with more travel options for everyone. This funding level best addresses Transit and System Preservation, as those two investment areas have the greatest gap between the current level of funding and the likely funding needed to attain the OTP goals.

Major Increase (2x). The Major increase funding scenario at two times the current budget is the first scenario that begins to make progress on substantially achieving policy goal outcomes. This funding scenario begins to make real progress toward addressing the investment needs for System Preservation and Adaptation and Transit relative to lower funding scenarios. Significant advancements are made toward increasing travel options, transit gets funded at a higher level, which has benefits to reducing has benefits to equity and climate change policy goal areas.

Incremental Increase (1/3x). This funding scenario relies upon ITS, fleet electrification, land use and travel options investments to best achieve policy outcomes. A sizable gap remains in addressing the need for System Preservation and Adaption policy goal areas and pushes out the benefits of investments into later years in the planning horizon due to the high costs of those investments. The increasing costs associated with insufficient funding for the system preservation continue to grow and begin to affect the system performance and put the system at greater risks in the face of climate, seismic and other events.

Current Funding Level. Under current funding levels System Preservation and Adaptation investments fall further behind in addressing the needs of the current system and addressing climate resiliency leading to future unreliability and disbenefits. Walkways and bikeways remain disconnected and limited progress is made to close only the most critical gaps, such as around schools. Limited progress is made toward accomplishing the desired policy outcomes in all investment areas.

7.5 Oregon Transportation Plan Implementation Actions

Oregon will need to implement actions and initiatives that address multiple goals at once to create equitable, healthy, and thriving communities; meet GHG reduction targets; and be resilient in the face of climate change, seismic, and other emergencies, The following implementation actions are not the only means to implement the OTP but serve as a starting point as they provide the most cross-cutting benefits and are within control of Oregon's transportation agencies. These priority implementation initiatives will, together, ensure Oregon's transportation agencies are collaborating to achieve the most urgent goals and objectives.

Near-term implementation of the OTP should focus on program-level policy and funding decisions that are most likely to "move the needle" on achieving OTP goals. All of the OTP objectives, policies and strategies will be important to achieving the OTP vision. Focusing

implementation on the Top 10 Actions will direct energy and resources toward changes that will affect multiple types of projects and programs, and/or have trickle-down effects that influence many aspects of the transportation system. While these top cross-cutting actions are intended to apply across all agencies, they also fit under the Oregon Department of Transportation's 2021–2023 Strategic Action Plan pillars—Equity, Modern Transportation System, and Sufficient and Reliable Funding—and should be considered in the next update of short-term actions. The top 10 implementation actions are outlined below:.

1. Secure sustainable, resilient, and reliable transportation funding streams.
2. Create and practice equitable processes and ensure decisions lead to more equitable outcomes.
3. Adopt Safe Systems, Americans with Disabilities compliant, and performance-based roadway design approaches and operation of all projects, with a focus on reducing fatalities and serious injuries.
4. Update planning and funding decision-making processes to reduce GHG emissions and passenger VMT per capita.
5. Maximize the life cycle of existing assets and incorporate resiliency and prioritization into maintenance, repairs, and replacement.
6. Support compact development and reduce trip lengths by investing in priority active transportation and transit networks and facilities to connect people with destinations (jobs, schools, retail, etc.).
7. Plan, invest in, and construct the infrastructure to electrify the multimodal transportation system and transition fuels and materials to low- and no-carbon sources.
8. Complete and maintain data and mapping of crashes, social equity indices, multimodal networks, and environmental risks for use in identifying priority investments and solutions.
9. Invest in resilient, efficient, and sustainable movement of commodities and people through comprehensive congestion management.
10. Leverage emerging data and technology through strategic partnerships and targeted investments that advance Road User Charging, electric vehicle charging and sustainable fuels infrastructure, vehicle-to-infrastructure and vehicle-to-vehicle, broadband, on-demand transportation option platforms (e.g., Mobility as a Service, and mobility hubs), and open data standards (e.g., General Transit Feed Specification).

7.6 Transportation Performance Monitoring

7.6.1 Purpose of Key Performance Indicators

The six goals of the OTP establish a direction for the state's future transportation system. Key Performance Indicators (KPIs) provide a compass, indicating how closely Oregon's transportation system is performing relative to that direction. KPIs track progress towards statewide goals and inform strategic decision-making, by focusing on the outcomes that the state wants to achieve.

KPIs are distinct from performance measures, which focus more closely on operational or tactical activities. For the OTP, KPIs will provide a statewide perspective on policy outcomes that extends across agencies, departments, and transportation modes and services. Collectively, the KPIs paint a picture of the downstream results of a wide-ranging and dynamic body of upstream activities, investments, and operational decisions.

7.6.2 Role of Key Performance Indicators within Oregon Transportation Plan

The OTP identifies the most valuable KPIs for measuring progress against the plan's goals and objectives. The KPIs have been developed through a multi-stage process, integrated within the broader OTP planning and policy development process.

The OTP's KPIs serve as a complement to existing federal and state performance measures, rather than a replacement or duplication. Federal legislation (established through MAP-21) requires the FHWA to set performance measures in safety, pavement and bridge conditions, and system performance. ODOT monitors and reports on those performance measures for the state. ODOT also adheres to a legislatively approved set of performance measures, as well as metrics adopted through state transportation plans. GHG emissions and safety targets are specifically addressed in the Oregon STS and TSAP, respectively. ODOT's modal plans set mode-specific measures. Additionally, each transportation agency in Oregon has agency-specific performance measures used to benchmark progress toward local or narrowly defined goals.

7.6.3 Key Performance Indicators for the Oregon Transportation Plan

The OTP goals and objectives establish measurable systemwide outcomes that will be critical to achieving the OTP's vision for the future transportation system. The specific policies that articulate these outcomes are listed below, organized by Goal as they are found in Chapter 6 (with associated policy reference in parentheses).

Sustainability and Climate Action

- Achieve state goals for reducing GHG emissions.

Transition to cleaner vehicles and fuels. Safety

- Eliminate the occurrence of people being killed or seriously injured on the transportation system.

Stewardship of Public Resources

- Secure sustainable and reliable funding.
- Implement a funding allocation framework and project prioritization process that evaluates the impact of investments on GHG emissions and results in total spending that reduces GHG emissions to meet STS and state goals

Mobility

- Reduce the per capita vehicle miles VMT for passenger vehicles.

Social Equity

- Reduce household transportation costs for those disproportionately burdened.
- Reduce disparities between historically marginalized populations and general populations for key economic, safety, and sustainability indicators.

Economic and Community Vitality

- Provide safe and reliable movement of goods and materials.
- Provide systems for the movement of people and goods to help communities thrive and prosper.

These measurable outcomes provide the basis for a set of proposed KPIs. Table 3 identifies the proposed indicators, the associated goal(s) of the OTP, and the desired direction of improvement (i.e., measuring an upward or downward trend). The last two columns identify which proposed indicators:

- draw from metrics already documented through federal or state performance monitoring
- can be further analyzed to compare outcomes for people who have been historically harmed and excluded from our transportation system

Transportation system performance may involve disproportionate impacts for historically marginalized communities. These disparities can be documented by disaggregating data by

race, income, or disability status, where relevant. In much of the United States, policies that lead to residential segregation and unequal distribution of resources have resulted in many people of color and people with low incomes living in communities with poor transportation facilities and amenities. This often leads to higher fatality rates, VMT, and levels of air pollution. Tracking KPIs for different sub-populations in Oregon helps to determine if two groups are experiencing unequal outcomes. In most cases this will be done at the community level, for example, analyzing pollution in a BIPOC community compared to a mostly white community. In other cases, it may be reasonable to compare outcomes on a household or individual level, such as the race of victims of traffic deaths or the amount spent on transportation by a household where someone has a disability.

Effective KPIs must be grounded in available sources of consistent and reliable data and be able to provide meaningful pictures of future outcomes (e.g., unbiased, as completely representative as possible, etc.). Each OTP indicator that overlaps with existing performance monitoring benefits from existing available data sources and added efficiency of the monitoring process. For further discussion of metrics used in monitoring each KPI, see Volume 2.

Table 3. Summary of Proposed Key Performance Indicators

DRAFT Key Performance Indicator	Nexus with OTP Goals	Desired Direction	Reflected in Existing Federal and Oregon Performance Measure	Additional Analysis for Social Equity
Multimodal Travel	Mobility and Economic and Community Vitality	Increase	Both	Yes
VMT per Capita	Mobility and Safety	Reduce	Oregon Only	Yes
Travel Time Reliability	Mobility and Economic and Community Vitality	Increase	Both	
Traffic Fatalities and Serious Injuries	Safety	Reduce	Both	Yes
GHG Emissions	Sustainability and Climate Action	Reduce	Both	
Energy Efficiency of Vehicle Fleet	Sustainability and Climate Action	Increase	Oregon Only	
Transportation Cost Burden	Social Equity	Reduce	Neither	Yes
Funding for Operations, Preservation, and Adaptation of the Transportation System	Stewardship of Public Resources	Increase	Both	Yes

OTP – Proposed Content - Volume 2

- Existing Conditions Memo
- Key Drivers of Change Memo
- Public Engagement Summary
- Scenarios Memo
- List of plans and policies referenced

Appendix B. KPIs and Example Metrics

KPI	Nexus with OTP Goals	Metrics Used in Modeling	Federal Reporting Required[1]	Oregon Performance Measures
Increase Multimodal Travel	Mobility; Economic and Community Vitality	Transit person miles traveled		**STS** Transit service levels Percentage of people choosing to travel regionally by train rather than air **ODOT** Number of state-supported rail service passengers
		Bike person miles traveled		**ODOT** Percentage of urban state highway miles with bike lanes and pedestrian facilities in "fair" or better condition
		Walk person miles traveled		
			Percentage of non-SOV travel	**STS** Percentage of short-distance SOV trips shifted to biking, walking, or other zero-emission modes Percentage of urban households in mixed-use areas
Reduce Daily VMT Per Capita	Mobility	Household Daily VMT Per Person		**STS** Amount of free parking in urban areas Parking prices Share of employees and households in urban areas participating in TDM programs Percentage of business travel replaced by virtual meeting technology Share of urban households participating in carsharing programs Percentage of Oregon drivers using Pay As You Drive insurance
		Total Daily VMT Per Capita		
Improve Travel Time Reliability	Mobility; Economic and	Travel Time Index under Extreme Congestion		

[1] Based on FHWA TPM Regulations: https://www.fhwa.dot.gov/tpm/about/regulations.cfm

KPI	Nexus with OTP Goals	Metrics Used in Modeling	Federal Reporting Required[1]	Oregon Performance Measures
	Community Vitality		Percentage of person-miles traveled on the interstate that are reliable	
			Percentage of person-miles traveled on the non-interstate NHS that are reliable	
			Peak hour of excessive delay per capita	**STS** Total vehicle delay on metropolitan roadways **ODOT** Ratio of annual average daily traffic to hourly highway capacity
			Truck Travel Time Reliability Index	
				STS Percentage of freeways and arterials with ITS deployed
Reduce Traffic Fatalities and Serious Injuries	Safety	Urban and Rural motorized related deaths	Number of fatalities Rate of fatalities per 100 million VMT	**TSAP** Number of traffic fatalities Rate of urban road fatalities per 100 million VMT Rate of rural road fatalities per 100 million VMT Number of unrestrained passenger vehicle occupant fatalities Alcohol impaired driving fatalities involving a driver with a BAC of 0.08 and above Speeding-related fatalities Motorcyclist fatalities Unhelmeted motorcyclist fatalities Drivers aged 20 or younger involved in fatal crashes

KPI	Nexus with OTP Goals	Metrics Used in Modeling	Federal Reporting Required[1]	Oregon Performance Measures
		Urban and Rural motorized related serious injuries	Number of serious injuries; Rate of serious injuries per 100 million VMT	**TSAP** Statewide observed seatbelt use Number of serious traffic injuries
		Walking and biking related deaths and serious injuries	Number of non-motorized fatalities and non-motorized serious injuries	**TSAP** Pedestrian fatalities Bicyclist and other cyclist fatalities
Reduce GHG Emissions	Sustainability and Climate Action	Total CO2e GHG emissions Household CO2e Per Person	Total emissions reductions from CMAQ-funded projects by pollutant: PM2.5, PM10, CO, VOC, NOx	**STS** GHG emissions for ground passenger and commercial services GHG emissions for freight GHG per ton-mile of goods movement
		Annual total tailpipe emissions	**Proposed new rule to set declining targets for reductions in tailpipe CO2 emissions on the NHS,*[2]	**STS** Air pollution per mile of vehicle travel Proportion of internal combustion engines **Governor** GHG emission reductions compared to 1990 levels
				STS Total fuel consumption Proportion of industrial growth occurring in energy efficient freight transportation corridors Share of Oregon-bound domestic freight-ton miles moved by truck, rail, pipeline, air, and barge
Improve Energy Efficiency of Vehicle	Sustainability and Climate	CO2e per mile of Transit service		

[2] Proposed new rule: https://www.federalregister.gov/documents/2022/07/15/2022-14679/national-performance-management-measures-assessing-performance-of-the-national-highway-system

KPI	Nexus with OTP Goals	Metrics Used in Modeling	Federal Reporting Required[1]	Oregon Performance Measures
Fleet	Action	CO2e per mile of Heavy Trucks		**STS** Percentage of trucks driving at posted speed limit
		Share of miles in a BEV		**STS** Percentage of hybrid vehicles on roads Percentage of vehicles that support ground-based power
				STS Aircraft emissions per mile Freight carbon fuel intensity Percentage of people who practice eco-driving techniques Average gas mileage Share of light vehicles Efficiency of engine powertrain technologies
Reduce Transportation Cost Burden	Social Equity	Share of income spent on transportation for households with annual income less than 25k		
Secure Funding for Operations, Preservation, and Adaptation of the Transportation System	Stewardship of Public Resources	Funding for Operations, Preservation and Adaptation of the Transportation System (current year dollars)	Percentage of NHS bridges classified as in Good condition Percentage of NHS bridges classified as in Poor condition	**ODOT** Percentage of state highway bridges that are not “distressed”
			Percentage of pavements of Interstate System in Good condition Percentage of pavements of Interstate System in	**ODOT** Percentage of pavement lane miles rated “fair” in the state highway system

KPI	Nexus with OTP Goals	Metrics Used in Modeling	Federal Reporting Required[1]	Oregon Performance Measures
			Poor condition Percentage of pavements of non-Interstate NHS in Good condition Percentage of pavements of non-Interstate NHS in Poor condition	
				ODOT Percentage of public transit buses that meet replacement standards Share of full costs paid by user for construction, operation, maintenance, and social costs in freight, air passenger, and ground passenger and commercial services travel markets

Acronyms and Abbreviations

BIPOC	Black, Indigenous and People of Color
GHG	greenhouse gas
KPI	Key Performance Indicators
ODOT	Oregon Department of Transportation
OTP	Oregon Transportation Plan
VMT	Vehicle Miles Traveled