OREGON TRANSPORTATION PLAN

Adopted September 20, 2006

VOLUME 1

THE OREGON DEPARTMENT OF TRANSPORTATION

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A copy of the draft as the Oregon Transportation Commission adopted it is on file at the Oregon Department of Transportation. Editorial changes for consistency and formatting have been made in this document.

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February 2007

Governor Kulongoski and Citizens of Oregon,

The Oregon Transportation Commission presents the Oregon Transportation Plan, a comprehensive plan that considers all modes of transportation as a single system. It addresses the future needs of Oregon's airports, bicycle and pedestrian facilities, highways and roadways, pipelines, ports and waterway facilities, public transportation, and railroads through 2030.

The Plan establishes goals, policies, strategies and initiatives that address the core challenges and opportunities facing transportation in Oregon. Challenges that include a growing population, limited transportation funding and ever increasing congestion make it imperative that we maximize the potential of our existing system and make the best decisions we can with our investments. The Plan's key initiatives seek to:

- Maintain the existing transportation system to maximize the value of the assets.
- Optimize system capacity and safety through information technology and other methods.
- Integrate transportation, land use, economic development and the environment.
- Integrate the transportation system across jurisdictions, ownerships and modes.
- Create a sustainable funding plan for Oregon transportation.
- Invest strategically in capacity enhancements.

The Oregon Transportation Plan reflects the work and contributions of many groups and individuals including representatives from federal, tribal, state, regional, county and city governments, transportation providers, and business, environmental and safety advocacy groups, in addition to the general public.

The Oregon Transportation Commission wishes to thank the many individuals who served on planning committees and those Oregonians from an even larger cross-section of the state who provided comments during the development of the Oregon Transportation Plan. Their significant commitment of time and energy has led to a product that will be instrumental in meeting the challenges facing transportation in our state.

Stuart Foster, Chairman
Oregon Transportation Commission

OREGON TRANSPORTATION COMMISSION

Stuart Foster, Chairman

Gail Achterman

Randall “Randy” Papé

Michael Nelson

Janice Wilson

Other Elements of the State Transportation Plan

• Aviation System Plan	Adopted 2000
• Bicycle and Pedestrian Plan	Adopted 1995
• Highway Plan	Adopted 1999, Reaffirmed 2006
• Public Transportation Plan	Adopted 1997
• Rail Plan	Adopted 2001
• Transportation Safety Action Plan	Adopted 2004, Amended 2006

Oregon Transportation Plan

Adopted by the Oregon Transportation Commission

September 20, 2006

Oregon Department of Transportation

Transportation Development Division

Planning Section

OREGON TRANSPORTATION PLAN

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PREFACE

PREFACE

The 2006 Oregon Transportation Plan (OTP) is the state's long-range multimodal transportation plan. The OTP is the overarching policy document among a series of plans that together form the state transportation system plan (TSP). The OTP considers all modes of Oregon's transportation system as a single system and addresses the future needs of Oregon's airports, bicycle and pedestrian facilities, highways and roadways, pipelines, ports and waterway facilities, public transportation and railroads through 2030. It assesses state, regional, and local public and private transportation facilities. The OTP establishes goals, policies, strategies and initiatives that address the core challenges and opportunities facing Oregon. The Plan provides the framework for prioritizing transportation improvements based on varied future revenue conditions, but it does not identify specific projects for development.

This Plan supersedes the *1992 Oregon Transportation Plan*. The 1992 OTP established a vision of a balanced, multimodal transportation system and called for an expansion of ODOT's role in funding non-highway investments. With fourteen years of experience and technological advances, the 2006 OTP provides a framework to further these policy objectives with emphasis on maintaining the assets in place, optimizing the existing system performance through technology and better system integration, creating sustainable funding and investing in strategic capacity enhancements.

After the Executive Summary, the policies, background analysis, implementation framework and key initiatives are presented in four sections:

- The **Challenges, Opportunities and Vision** section describes the socio-economic and environmental challenges affecting Oregon's transportation system, the Plan's response to those challenges and vision for the future. This section explains the legal context for the Plan and describes the organizational structure of transportation delivery in Oregon.

- The **Goals, Policies and Strategies** section is the policy framework of the Plan. The goals, policies and strategies will guide transportation decision-making for the state multimodal, modal, topic and facility plans as well as the regional and local transportation system plans.

- The **Summary of Financial and Technical Analyses** summarizes the technical work that supports the Plan's goals, policies, strategies and key initiatives. The technical analysis looks at the transportation needs to the year 2030, describes revenue sources and compares existing and forecasted conditions under possible future scenarios as part of the plan policy analysis.

- The **Implementation** section includes the implementation framework, investment scenarios and key initiatives. This section describes implementation of the OTP through the planning process and requirements for modal/topic, facility, local and regional transportation plans. The investment scenario framework identifies investments based on varied levels of funding. The key initiatives outline implementation priorities and investment criteria.

The Oregon Transportation Commission is responsible for developing and adopting the Plan. A Steering Committee and three policy committees guided its development. The 61 committee members represented cities, counties, federal and state agencies, a tribal government, user groups, environmental groups, business and industry groups, and the Oregon Department of Transportation (ODOT). Since the OTP is a state plan mandated by state and federal statutes, ODOT, the Oregon Department of Aviation, other agencies and jurisdictions and the Oregon Legislature share responsibility for its implementation.

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Challenges and Opportunities

Transportation enables Oregonians to reach jobs and recreation, access goods and services, and meet our daily needs. We compete in a global economy where goods and services must flow easily around the world. We need a transportation system that's flexible and that allows us to move from our homes and personal vehicles to transit, rail and air without difficulty and enables goods to flow efficiently and reliably from ships and planes to trains and trucks.

For the most part, Oregon's transportation system has served us well. In the past we built extra capacity into the system. That extra capacity helped Oregon have a transportation system that meets many of today's needs. But the world is changing rapidly, and Oregon is growing. We must do things differently to meet the challenges of the next 25 years so that the next generation can enjoy opportunities and quality of life.

The challenges facing Oregon's transportation system are major:

- A 41 percent increase in population by 2030 and accompanying economic growth will increase demand for transportation and add to wear and tear on existing infrastructure.

- The competitive global economy demands fast, efficient transportation for people, goods and services. By 2030 an 80 percent increase in freight tonnage, moving mostly via truck, will have to navigate through extended periods of peak hour traffic.

- The increasing congestion will undermine the state's economic competitiveness by lengthening delivery times for goods and services. Accidents, stalled vehicles, weather, work zones and other incidents cause about 50 percent of traffic delay.

- Uncertain global oil supply and increasing prices will cause unpredictable worldwide economic and transportation changes within the next 25 years.

- Transportation is causing global warming and other environmental degradation.

- Lack of land use and transportation integration means lost opportunities for community livability and economic activities.

- International and domestic terrorism threatens transportation security.

- Transportation-related accidents kill or injure thousands of people each year.

- Institutional relationships and divided responsibilities among state, regional and local governments and public and private transportation providers impede our ability to achieve shared strategic objectives.

- Transportation financing does not maintain the existing system or provide opportunities for expansion of vital air, highway and roadway, port, public transportation, and rail facilities, services and technology.

Although we are facing unprecedented challenges, Oregon is positioned to respond to them. We can use the opportunities in our existing transportation system and practices to begin meeting the challenges:

- We have basic airport, highway, port and rail infrastructure in place, and public transit services in most large urban areas. By using technology, increasing transportation efficiency and strategically expanding the existing system, we can accommodate increased population and economic activity.

- We have the transportation infrastructure and geographic position to move the products of Oregon's diverse economy to markets across the country and worldwide. Major highways and airport, rail and port facilities enable Oregon products to compete in the global economy.

- To alleviate congestion, Oregon's metropolitan areas have developed Intelligent Transportation System deployment plans to maximize the use of the road system. Some metropolitan areas are reducing travel times by increasing public transit and incident management.

- Sustainability practices that respond to high fuel prices, global warming and other environmental degradation are already being implemented. These include development of alternate fuels, cleaner vehicle emissions, public transit services and communities designed to encourage walking, bicycling, transit and shorter vehicle trips. The Oregon Department of Transportation (ODOT) collaborates with natural resource-related state and federal agencies on environmental permitting and actions.

- Oregon has a land use program that emphasizes development of compact communities and integration of appropriate land uses and transportation. The state, metropolitan areas and larger cities and counties are required to prepare transportation system plans.

- State agencies are preparing emergency response plans in coordination with local jurisdictions.

- State and local governments are targeting critical safety problems through education, engineering, enforcement and emergency response.

- State, regional and local organizations are collaborating on difficult transportation issues. These include Area Commissions on Transportation (ACTs), Metropolitan Planning Organizations (MPOs), the Oregon Aviation Board, and the Oregon Bicycle/Pedestrian, Freight, Public Transportation, and Rail Advisory Committees. Interagency teams are developing strategies for addressing sustainability, global warming, environmental issues and economic revitalization.

- Both Metro and ODOT are exploring funding options including tolling and alternatives to the motor vehicle fuel tax.

Oregon has the opportunity to be a leader in transportation efficiency and sustainability so that transportation infrastructure and services support our communities, environment and economy. The goal is a safe, efficient and sustainable transportation system that enhances Oregon's quality of life and economic vitality. The Oregon Transportation Plan provides the vision, goals, policies, strategies, implementation framework and key initiatives to move the state toward this goal.

The Oregon Transportation Plan's Purpose and Process

The Oregon Transportation Plan is the state's long-range multimodal transportation plan for Oregon's airports, bicycle and pedestrian facilities, highways and roadways, pipelines, ports and waterway facilities, public transportation, and railroads.

It is a comprehensive, 25-year plan for the transportation system to provide economic efficiency, orderly economic development, safety and environmental quality. Required by Oregon and federal statutes, the OTP guides development and investment in the transportation system through:

- Transportation goals, policies and strategies,
- Transportation investment scenarios and an implementation framework, and
- Key initiatives to implement the vision and policies.

The Plan guides statewide multimodal and modal plans and regional and local transportation system plans. Although the OTP does not identify specific projects for development, it provides a framework for prioritizing transportation improvements and developing funding.

Three policy committees and a Steering Committee developed the OTP over a two-year period. Committee members represented federal, state, regional and local governments, transportation agencies, transportation providers, business, environmental and safety advocacy groups and citizens. Based on background papers and analyses, the committees crafted the vision, goals, policies, investment scenarios and key initiatives. The Oregon Transportation Commission (OTC) reviewed the Plan before sending it out for public review. Over 1100 Oregonians participated in 58 meetings or commented through the OTP website. The Department also conducted formal and informal surveys to gauge public opinion on OTP issues; 1500 Oregonians participated in the formal survey and over 200 in the informal. Based on the comments, the committees and Commission modified the Plan. The Commission asked for additional public review of the modified Plan before holding a public hearing and adopting the Plan.

The Plan's Assumptions

The OTP makes basic assumptions based on background papers, technical analyses, committee discussions and public comment, including the following:

- Oregonians expect to get the most value possible from transportation funding.
- Maintaining existing facilities and services, managing transportation systems efficiently and optimizing technologies are basic to delivering transportation in Oregon.
- By 2030 Oregon's transportation system needs to accommodate 41 percent more population and an 80 percent increase in freight tonnage.
- Transportation strategies have to adapt to global environmental and economic changes including global warming, uncertain worldwide petroleum supply and high fuel prices.
- Although the state land use program may change, basic land use and transportation-related programs are expected to continue.
- The Portland metropolitan area is the economic hub of the state; however, Oregon's economic vitality is dependent on all parts of the state.
- Rural areas have unique challenges involving isolation and low density.

Underlying Themes and Vision

The Oregon Transportation Plan's goals, policies, strategies and implementation framework respond to the challenges facing Oregon's transportation system. Underlying the goals, policies, strategies and implementation framework are five fundamental themes:

- Accessibility and mobility,
- Economic development,
- Equity,
- Safety, and
- Sustainability.

The Vision

The Vision defines the kind of transportation future we want to build and the outcomes we want to achieve.

> By 2030, Oregon's transportation system supports people, places and the economy. We travel easily, safely and securely, and so do goods, services and information. Efficient vehicles powered by renewable fuels move all transportation modes. Community design supports walking, bicycling, travel by car and transit wherever appropriate. Our air and water are dramatically cleaner, and community sensitive and sustainable transportation solutions characterize everything we do.
>
> Oregonians and visitors have real transportation choices and transfer easily between air, rail, motor vehicles, bicycles and public transportation while goods flow just in time through interconnected highway, rail, marine, pipeline and air networks. Our communities and economies – large and small, urban and rural, coastal and mountain, industrial and agricultural – are connected to the rest of Oregon, the Pacific Northwest and the world. Land use, economic activities and transportation support each other in environmentally responsible ways.
>
> We excel in using new technologies to improve safety and mobility. We maximize the use of existing facilities across traditional jurisdictions and add capacity strategically. Public/private partnerships respond to Oregonians' needs across all transportation modes. Transportation system benefits and burdens are distributed fairly, and Oregonians are confident transportation dollars are being spent wisely. By 2030, Oregonians fully appreciate the role transportation plays in their daily lives and in the region's economy. Because of this public confidence, Oregonians support innovative, adequate and reliable funding for transportation.

The Plan's Direction and Priorities

Achieving this Vision and responding to the major challenges requires setting direction and priorities. Six priorities that became key initiatives emerged during the planning process:

- Maintain the existing transportation system to maximize the value of the assets.
- Optimize system capacity and safety through information technology and other methods.
- Integrate transportation, land use, economic development and the environment.
- Integrate the transportation system across jurisdictions, ownerships and modes.
- Create a sustainable funding plan for Oregon transportation.
- Invest strategically in capacity enhancements.

The Goals

These priorities underpin the OTP's goals, policies, strategies and implementation framework. The goals and policies guide more specific multimodal, modal/topic plans, facility plans and regional and local transportation system plans. They will guide transportation strategies and investments and other decisions by state and local agencies, regional and local governments and transportation providers. In some cases, they will be implemented through legislation. Each of the OTP's seven goals are defined by more specific policies and strategies:

- **Goal 1 – Mobility and Accessibility**

  To enhance Oregon's quality of life and economic vitality by providing a balanced, efficient, cost-effective and integrated multimodal transportation system that ensures appropriate access to all areas of the state, the nation and the world, with connectivity among modes and places.

- **Goal 2 – Management of the System**

  To improve the efficiency of the transportation system by optimizing the existing transportation infrastructure capacity with improved operations and management.

- **Goal 3 – Economic Vitality**

  To promote the expansion and diversification of Oregon's economy through the efficient and effective movement of people, goods, services and information in a safe, energy-efficient and environmentally sound manner.

- **Goal 4 – Sustainability**

  To provide a transportation system that meets present needs without compromising the ability of future generations to meet their needs from the joint perspective of environmental, economic and community objectives. This system is consistent with, yet recognizes differences in, local and regional land use and economic development plans. It is efficient and offers choices among transportation modes. It distributes benefits and burdens fairly and is operated, maintained and improved to be sensitive to both the natural and built environments.

- **Goal 5 – Safety and Security**

  To plan, build, operate and maintain the transportation system so that it is safe and secure.

- **Goal 6 – Funding the Transportation System**

  To create a transportation funding structure that will support a viable transportation system to achieve state and local goals today and in the future.

- **Goal 7 – Coordination, Communication and Cooperation**

  To pursue coordination, communication and cooperation among transportation users, providers and those most affected by transportation activities to align interests, remove barriers and bring innovative solutions so the transportation system functions as one system.

Implementation Framework

Implementation of the OTP will take place through the planning process, increased coordination and cooperation, funding strategies, key initiatives and legislation. These processes will involve weighing the goals, policies and strategies to come to an appropriate course of action. Sometimes emphasis will be on one goal or policy and sometimes on another, depending on the circumstances. An Implementation Plan, approved by the OTC, will guide implementation steps.

The Planning Process

Integrated state multimodal and modal/topic plans and regional and local transportation system plans will refine the OTP's broad policy and investment strategies and further the key initiatives.

Investment Scenarios

At various levels of funding, Oregonians will be able to invest in the transportation system in different ways. Although the details vary by mode because of funding sources, the basic strategies are the same. Each level of funding for all transportation modes will require attention to maintenance of facilities and services, efficiencies, innovation and system management.

- Investment Scenario Level 1, Response to Flat Funding, includes the adjustments necessary if there are no additional transportation funds available. This investment level emphasizes preservation and operational improvements to maximize system capacity. With no additional investments, even these improvements would have to be triaged. Over the next 25 years, inflation alone will reduce spending power by 40 to 50 percent.

- Investment Scenario Level 2, Maintaining and Improving Existing Infrastructure and Services, preserves existing facilities and services and keeps up with inflation. This preservation strategy holds existing facilities and services at their current performance levels to the extent possible. It addresses some bottlenecks and puts additional funding into operations to preserve capacity, but it does not include major capacity-enhancing improvements.

- Investment Scenario Level 3, Expanding Facilities and Services, includes major investments in new infrastructure. It represents feasible needs, that is, funding that maintains the system at a slightly more optimal level than current levels, replaces infrastructure and equipment on a reasonable life cycle, brings facilities up to standard or adds capacity in a reasonable

way. It does not bring all infrastructure up to standard or meet all needs for capacity and/or services. Some of these investments in Scenario Level 3 would be financed from traditional sources while others would be funded in part through mechanisms such as value capture and tolls. Scenario Level 3 represents additional funding over the next 25 years to keep pace with travel growth and to increase transportation system capacity to meet feasible needs.

Key Initiatives

The key initiatives developed by the OTP Steering Committee reflect the directions of the Plan including system optimization, integration of transportation modes, integration of transportation, land use, the environment and the economy, and the need to make strategic investments using a sustainable funding structure. The purpose of the key initiatives is to frame plan implementation, along with updating the modal/topic plans, not to override the direction of the goals and policies. As conditions change, the Transportation Commission may adopt or pursue new initiatives.

A. Maintain the existing transportation system to maximize the value of the assets. If funds are not available to maintain the system, develop a triage method for investing available funds.

- **Preserve the existing highway and roadway system to serve multiple modes.** As the state's top priority for highway investments, preserve access to the state highway system and intermodal freight and passenger facilities (ports, airports and rail terminals). As funding allows, invest in preservation, operations and capacity enhancements after considering the return on investment. In the event of a financial shortfall, the state should work with local governments to establish clear criteria for highway and road investment priorities.

- **Preserve an integrated arterial road system** that provides an effective option to the use of freeways in both rural and urban areas and serves businesses and industries.

- **Preserve transit services.** Concentrate statewide investments in public transportation on preservation of intercity, general service and special needs transportation services throughout the state.

- **Preserve rail capacity and services.** Preserve the existing rail infrastructure where freight services are economically viable. Preserve passenger rail services within the Willamette Valley and from California to Washington.

- **Preserve regional air service.** Involving the Departments of Aviation, Transportation, and Community and Economic Development, work with the aviation industry to preserve the availability of regional air services statewide.

- **Preserve access to Oregon ports**. Work with the Northwest Congressional delegations, federal agencies and the Army Corps of Engineers to assure funding is available for needed dredging and for maintenance and repair of jetties that protect

shipping lanes and harbors. The state, local governments and the railroads should work to maintain and improve access to marine facilities. Oregon should support improved funding for cargo-handling capacity.

B. Optimize system capacity and safety through information technology and other methods.

- **Make Oregon's highways, streets, roads and transit systems efficient and seamless for travelers and shippers through the use of new technology**. Aggressively lead in developing a state of the art vehicle infrastructure interactive highway system that makes Oregon's highways the safest, most efficient and most seamless with regard to transit, truck and passenger vehicle access.

- **Remove bottlenecks in the system where feasible.**

- **Enhance incident response including emergency response to maintain safety and system capacity.**

- **Improve safety through emergency response, education, enforcement and infrastructure improvements to reduce crashes and transportation-related fatalities.**

C. Integrate transportation, land use, economic development and the environment.

- **Encourage and support land use plans and policies to enhance overall transportation system efficiency and transportation choices, including planning for compact and mixed-use development in appropriate locations.**

- **Expand the use of and consistently apply context sensitive and sustainable solutions in transportation facility planning and design.**

- **Coordinate tribal, federal, state, local and regional planning to protect transportation facilities, corridors and sites for their identified functions and to facilitate community and economic development.** With ODOT leadership, develop simulation tools to assist communities in evaluating transportation and land use proposals.

- **Join the energy debate as an advocate for Oregon transportation to assure a reliable, diverse and adequate fuel supply.** Develop a contingency plan for dealing with fuel shortages.

D. Integrate the transportation system across jurisdictions, ownerships and modes.

- **Manage the transportation system efficiently across transportation modes and jurisdictions.** Work with transportation providers, including federal and state agencies, cities, counties, transit districts and the private sector, to create a strategic

plan to more efficiently and effectively manage and develop the transportation system. With public support, consolidate and streamline transportation system management where appropriate.

- **Develop a coordinated system for maximizing federal funding for transportation improvements across jurisdictions and modes.** Involve interests across modes, regional and local governments, business and community leaders and the Northwest Congressional delegations in developing the coordinated system and resolve competing interests before making requests.

E. Create a sustainable funding plan for Oregon transportation.

- **The Oregon Transportation Commission should engage the public to create a sustainable funding plan for transportation that includes clear choices on investment levels and addresses all modes and all parts of the state.** Elements of this plan should include:
    - Addressing the 2008 funding shortfall and shortfalls in years beyond;
    - Finding funding sources that keep pace with inflation and demand to guarantee continued maintenance and preservation activities as well as projects to enhance capacity;
    - Developing alternatives to fuel taxes;
    - Funding capacity-enhancing projects in all modes; and
    - Developing public support.

F. Invest strategically in capacity enhancements. Use the following considerations in making strategic investments:

- Ensure that strategic investments balance maintenance and preservation needs with critical capacity enhancements and operations.
- Recognize that safety may be a strategic investment.
- Address key bottlenecks where feasible. This encompasses driver behavior and places where constricted movements are creating delay for passenger or goods movements including interchanges, tunnels, bridges, rail yards, transit malls and other hubs where existing capacity is overwhelmed by transportation movements.
- Support investments where congestion obstructs or impedes movements on key segments of the system.
- Balance intermodal investment considering return on investment and advancement of modal choice.

- Enhance intermodal areas which foster the integration of service delivery or provide for more efficient service delivery.
- Assist in the promotion of job development and retention in areas such as industrial/ employment centers.
- Support the optimal use of technology to resolve issues or improve the effectiveness or integration of transportation elements.
- Make investments that further the long-term functioning of the system as a whole.
- Promote appropriate allocation and coordination of jurisdictional responsibility.
- Support regional and local land use plans.

Additional work on refining criteria for strategic investments should occur in the multimodal and modal/topic plans that implement the OTP as well as during Statewide Transportation Improvement Program development and funding allocations. These refinements will vary by mode and change over time as the transportation system faces new issues. The challenge in refining criteria will be to develop a framework that allows decision-makers to make choices across modes in a transparent way.

CHALLENGES, OPPORTUNITIES AND VISION

CHALLENGES, OPPORTUNITIES AND VISION

Oregon's Transportation Challenges

Oregon's transportation system will be different in 2030. Technology will improve the way that vehicles and people interact with the transportation system and each other. But the global economy, peaking of world oil supply and global warming will result in unpredictable changes and stresses on the transportation system. Our ability to meet these challenges, or at least respond as effectively as possible, depends on the way we work together to change the way we do things, manage the transportation system, better integrate land use, transportation and economic activities, and fund a sustainable transportation system.

Growing Population Demands on Transportation

Oregon's population is growing faster than the national average, increasing demands on the transportation system. While over 3.42 million people called Oregon home in 2000, that number is forecast to reach 4.8 million by 2030, a gain of 41 percent.[1] In 2000 about 71 percent of Oregonians lived in the Willamette Valley. About 58 percent lived in the state's metropolitan areas—Bend, Corvallis, Eugene/Springfield, Medford, Portland and Salem/Keizer. Although all parts of the state are expected to grow, by 2030 Marion and Multnomah Counties will have densities ranging from 345 to 1800 people per square mile while parts of Eastern Oregon will continue to average 1 or 2 people per square mile.[2]

Oregonians are also getting older and more ethnically diverse. In 2000 about 13 percent of the population was at least 65 years old, but that percentage is expected to double by 2030. In some rural counties, 15 to 20 percent of residents were over age 65 in 2000; while the percentage of population was less, almost 74,000 seniors resided in Multnomah County. In 2000 over 13 percent of Oregonians were members of a minority; about half were Latinos. The U.S. Census estimates that 19 percent of the population will be minorities in 2025.

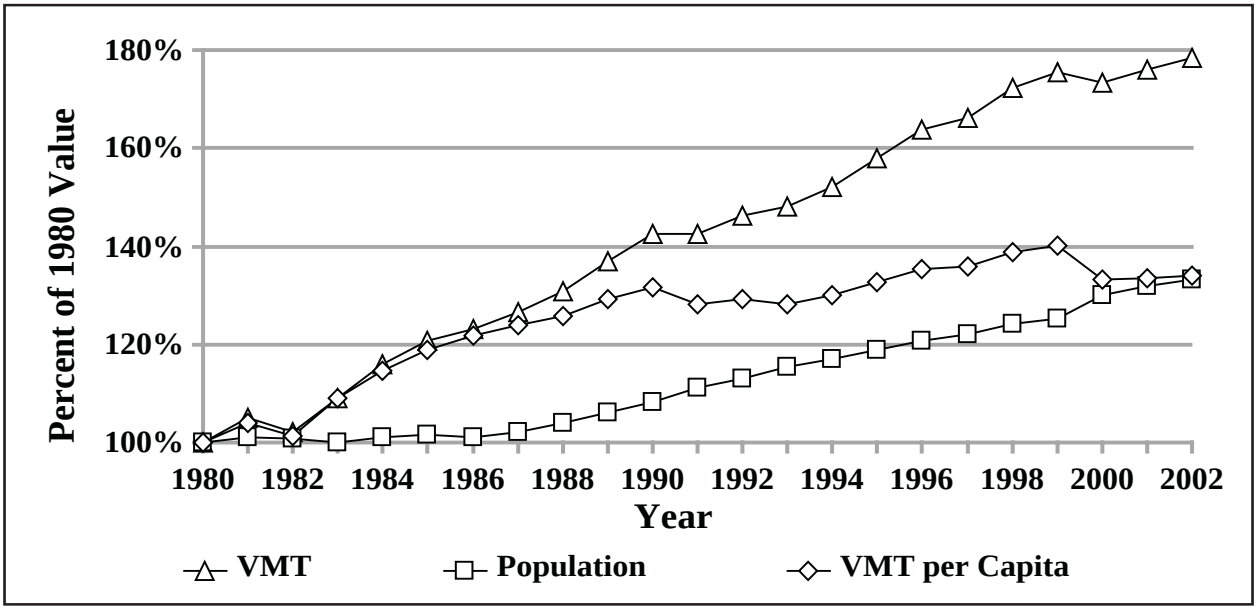
[1] 2000 U.S. Census.
[2] In 2000, densities in Marion and Multnomah Counties were 241 and 1518. Three Eastern Oregon counties had less than 1 person per square mile.

Transportation Implications

Based on historic trends, as population and the economy grow, so do the number of vehicles on the road and the number of miles driven. Although the number of vehicle miles traveled (VMT) per person in urban areas has remained steady since 2001 and trends towards stabilizing rates of VMT per capita appear solidly in place in Oregon and elsewhere, total VMT in Oregon is expected to increase at approximately 1.35 percent annually over the plan period. This increase is primarily due to population growth and increases in economic activity. Oregon's added capacity on the major road system has not matched traffic growth. From 1982 to 2002, traffic on major roads in urban areas used up excess road capacity and grew about four times faster than the number of roadway lane-miles, congesting many roads.

Figure 1 compares statewide VMT and population growth between 1980 and 2002 and shows the change in VMT per capita. While total state VMT continued to increase due to population growth, VMT per capita leveled off somewhat after 1990 because of a number of factors including compact land use and public transit use in the Portland metro area. The drop in total statewide VMT and VMT per capita between 1999 and 2000 was a result of economic factors related to rising gas prices and the beginning of a recession.

Figure 1: Statewide Vehicle Miles Traveled, Population and Vehicle Miles Traveled Per Capita 1980-2002[3]



Growing population densities and traffic are increasing opportunities and demand for public transportation in metropolitan areas. The Eugene/Springfield area is creating a bus rapid transit system. The Portland metro area is adding light rail and commuter rail lines and more frequent bus service. Urban areas are making bicycles a commuting option; almost 10 percent of some inner Portland neighborhood residents commuted by bicycle in 2004.

[3] Total statewide VMT information (truck and passenger travel), ODOT Financial Services Unit.

Overall, those over age 65 are likely to be healthy, age where they live currently and continue to drive to about age 85. They will outlive their driving ability by six to ten years. Some seniors will depend on others to drive, and others will depend on special transportation services. Persons with disabilities and non-English speaking populations must also be able to access transportation facilities. Funding these services and services for persons with low incomes and residents of rural areas will be a critical issue for Oregon.

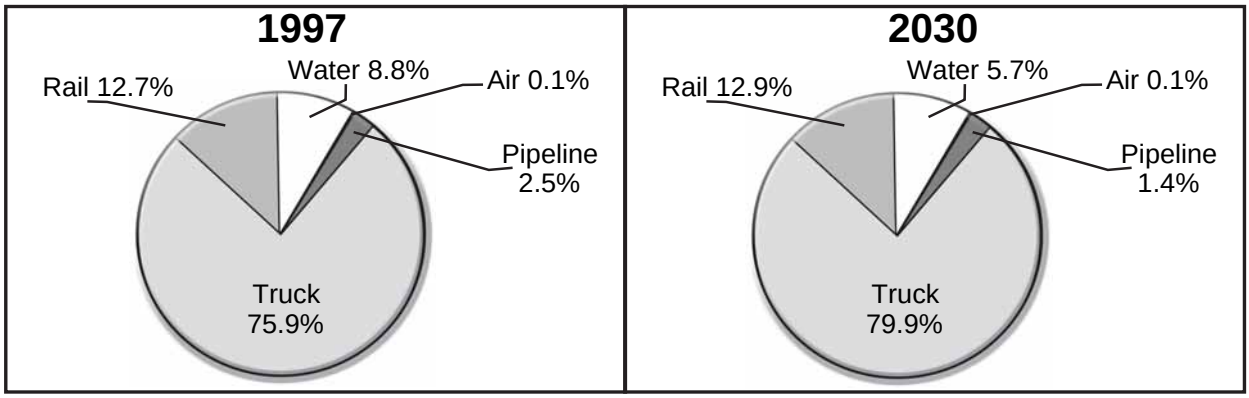
Competing in a Global Economy

Oregon's economy is diverse. Oregonians develop high technology, manufacture transportation equipment and other traded goods, process forest and wood products, grow and process a wide variety of agricultural products and support tourist services as well as other industries. Oregon's geographic position and transportation infrastructure are pivotal for supporting national and international trade. The Interstate 5 corridor is the major north-south freight route in the state and along the entire West Coast, providing a direct international land connection via highway and rail to Canada and Mexico. The Interstate 84 corridor is the state's major east-west freight route, linking Oregon to Idaho and larger markets further east via highway and rail. The Pacific Ocean and Columbia-Snake River system provide a valuable link for waterborne freight movement and commerce. Portland International Airport provides direct air connections to cities across the nation and overseas.

Oregon's high tech, manufacturing, resource-based and tourism industries depend on effective transportation connections to all parts of the state as well as to other states and other nations. While high tech tends to be concentrated in the Portland area and Willamette Valley, resource-based industries and tourist services are located throughout the state. Commodities such as wood products manufactured in central Oregon are dependent on the rail or state highway system to move to Portland and on the metropolitan area transportation system to efficiently move to ports.

In 2001 Oregon ranked tenth among states in exports per capita. With total exports worth over $10 billion in 2002, our top trading partners were Canada and Asian nations. If present trends continue, the *Oregon Commodity Flow Forecast* (2005) predicts that the total number of tons moved to, from and within Oregon will increase by 80 percent from 1997 to 2030. Total tonnage moving through the state is forecast to increase from 57 million tons to 122 million tons. Trucks will move a greater proportion of commodities measured in value and tons. While airplanes will carry the same proportion of goods in 2030, their value will increase in relationship to other modes. Waterborne commodities are forecast to be a smaller proportion of future commodities measured in value and tons.

Figure 2: Oregon Commodity Flow Tonnage Forecast by Mode and Year[4]



Transportation Implications

Our economy relies on efficient, safe and secure transportation services. Customers depend on flexible, reliable and just-in-time freight movements. Industries have been attracted to Oregon because of its advantageous trading position. But increased congestion in the Portland area slows the transportation of goods to market from all parts of the state. Because of longer travel times, businesses have to make adjustments that reduce their competitiveness. Rail yards and rail operations have bottlenecks. Deteriorating rail short lines, roadways and bridges threaten the reliability of the transportation system. The efficient movements of goods and services depend on maintaining the transportation infrastructure; facilitating transfers among trucks, railcars, pipelines, airplanes and ships; addressing bottlenecks; and strategically investing in capacity enhancements for airports, pipelines, ports, railroads and roadways.

[4] Global Insight, *Oregon Commodity Flow Forecast, Final Report*, April 2005. Report developed for ODOT.

Congestion

At the same time that industries demand just-in-time deliveries, our growing population and economic activities are increasing congestion. The most congested state highway corridors, primarily those in the Portland metropolitan area and Interstate 5 in the Willamette Valley, face slower travel speeds and longer travel times. On average, in 2002 urban freeways carried almost double the amount of traffic they carried in 1982. Accidents, stalled vehicles, weather, work zones and other incidents cause about 50 percent of the travel delay. Including the effects of traffic accidents and other incidents, Portland area commute-period (peak period) trips take 44 percent more time per mile traveled than off-peak period trips.

However, the average commute in Portland is shorter than in some large urban areas because Portlanders do not travel as far. The Portland metro area's land use planning and aggressive investments in public transit and other travel options have contributed to a drop in VMT per capita since 1999. Because of transit use, Portlanders avoid about 28 to 40 percent of congestion delay; ramp metering, incident management and coordinated signal systems save almost another 10 percent of delay. Eugene and Salem have areas of congestion, but the problems are not as extensive; their peak period trips take 10 percent more time than off-peak period trips, about average for the same size cities in the United States.[5]

The rail and freeway bottlenecks and congestion in the Portland area and Willamette Valley Interstate 5 corridor, on Interstate 84 and at the Ports of Portland and Vancouver delay freight movement, impeding economic competitiveness. Train delays have increased, affecting both freight and rail passengers. In the absence of capacity improvements, increasing trains on the railroads and motor vehicles on the highways will add delay.

Transportation Implications

As congestion increases, travel speeds become variable, and traffic accidents and other incidents can easily disrupt the traffic flow. Travel time becomes more unreliable, and the amount of delay increases. This delay and unreliability deters travel, increases travel costs for people, services and goods, and decreases businesses' competitive advantage. Businesses experience costs for additional drivers and trucks due to longer travel times, loss of productivity due to missed deliveries, reduced market areas, and increased inventories.[6]

The approach for addressing congestion depends in part on whether the corridor serves freight and through traffic or high density office, business and residential areas where transportation choices exist and congestion can be tolerated. Increased use of public transportation, access management, transportation demand management, Intelligent Transportation Systems (ITS), high occupancy vehicle (HOV) lanes and strategic additions to capacity can contribute to reducing highway and roadway congestion. System management including incident management, ramp metering and

[5] The range of delay avoided because of transit use reflects both the methodologies used by Brian Gregor in *Analysis of Congestion and Travel Trends Reported in the 2005 Urban Mobility Study Report*, ODOT, December 1, 2005, which shows 40 percent, and the Texas Transportation Institute in *2005 Urban Mobility Study* which shows 28 percent.

[6] Economic Development Research Group, *The Cost of Congestion to the Economy of the Portland Region*, December 5, 2005, p. ES-3.

traffic signal coordination can effectively reduce travel delay. In difficult conditions, system management also can include limiting the number of Interstate highway interchanges and closing ramps on highly congested Interstates. Locating jobs and housing within short distances of each other can allow people to use public transit, bike or walk, and make short auto trips.

Adding more train trips without addressing capacity and dispatch issues in the Portland/Vancouver area can lead to higher shipping costs and reduced system reliability. Intercity passenger services could be further constrained. The *I-5 Rail Capacity Study* (2003) identified enhancements to preserve and improve rail capacity over the short term. System management including better operations and interconnections may also alleviate bottlenecks on the rail system.

Unpredictability of World Oil Prices and Supply

In 2003 the United States consumed almost 20 million barrels of oil per day; transportation used two-thirds of this total. But the world's supply of oil is finite and demand is rising worldwide. Although experts disagree about when world oil production will peak, even the most optimistic forecasts suggest that it will occur in less than 25 years. Disruptions to the world's oil supply will likely lead to increasing fuel prices and create economic disruption worldwide.[7]

Transportation Implications

Although the timing of the peaking of oil supply is unpredictable, we can anticipate certain changes and develop strategies to ease the effects. Tightening supply and higher demand will increase fuel costs. Higher costs will affect motor vehicles and airplanes more than public transit, rail and barge because fuel is a smaller part of their costs. Any shortage of supply will affect transportation options since alternative fuels may be more readily available to some modes than to others.

Responding to potential oil supply disruptions means managing risk. Development of alternative fuel and fuel-efficient vehicles can lessen dependence on oil products. Transportation system plans can support programs that result in businesses, industries and residents shortening trips and using transportation alternatives.

Maintenance and expansion of Oregon's highways and roadways depend on the use of motor fuel taxes. Likewise, airports use aviation fuel taxes for maintenance and preservation of their infrastructure. A tighter oil supply means that fewer gallons will be available to users and they will yield fewer tax dollars for transportation improvements. Alternative means of funding will be required.

[7] Robert L. Hirsch, Roger Bezdek, and Robert Wendling, *Peaking of World Oil Production: Impacts, Mitigation, and Risk Managemen*t, February 2005, page 13. Analysis and report done for U.S. Department of Energy.

Global Warming

The United States is the largest energy user in the world and emits almost one-quarter of the world's greenhouse gases, primarily carbon dioxide. Greenhouse gases contribute to warming the climate. Transportation activities are estimated to be the second largest single source of greenhouse gas emissions and are responsible for 38 percent of Oregon's carbon dioxide emissions. The Oregon Department of Energy predicts that carbon dioxide emissions in the state will increase by 33 percent from 2000 to 2025 mainly because of increased driving.

Transportation Implications

Two impacts of global warming on transportation facilities in the Pacific Northwest are rising sea levels and increased wave heights. Both could have severe impacts on Highway 101, coastal ports and other coastal transportation facilities.

The *Oregon Strategy for Greenhouse Gas Reductions* (2004) identifies two main strategies for reducing greenhouse gas emissions: (1) Encourage the use of hybrid, electric and other fuel-type engines instead of traditional combustion engines, and (2) guide land use choices, especially in urban areas toward higher densities, transit options, mixed-use neighborhoods and fuel-efficient designs.

Additional strategies include increasing use of public transportation, freight rail, bicycling and walking.

Protecting the Environment

Along with greenhouse gases and air pollution from vehicle emissions, construction of transportation facilities affects wildlife habitat and movement, biodiversity, hydrologic function and water quality. Traffic contributes to noise pollution. Transportation infrastructure often encroaches on rural landscapes, affecting prime farm and forest lands.

Transportation Implications

Environmental issues and regulations make it challenging to site new transportation facilities. To avoid further environmental degradation, transportation facilities must be sensitive to the environment. Agencies must continue to work collaboratively to streamline permit procedures to avoid and mitigate environmental degradation, and, if possible, design and develop facilities with sensitivity to plants, animals, water and air resources and the land. The transportation planning process must include stronger environmental considerations.

Integrating Land Use

Transportation and land uses can enhance each other if they are integrated. State agencies and local governments are already working together to integrate transportation facilities and communities so that highways support local access and transportation options. But Oregon has at least three land use challenges: (1) Better integration of state and local transportation systems, (2) a shortage of industrial land in high demand areas with access to transportation options and (3) uncertain development patterns as a result of changing land use laws.

Transportation Implications

If state and local transportation systems and land uses work together, Oregonians will have more options for travel and lower travel times on major corridors. Development of local road networks, access management, public transportation, and bicycling and pedestrian facilities, transportation demand management practices and supporting ITS can relieve congestion on arterial roadways. Governmental partnerships can facilitate coordinated traffic signals and responses to incidents that cross jurisdictional boundaries. With industrial access to transportation choices, businesses can use the most cost-effective transportation option whether it's truck, rail, air or waterway. Scattered development that may be allowed under changes to Oregon's land use planning structure may need transportation and other infrastructure and place additional demands on funding.

Providing a Secure Transportation System

Since the September 11, 2001 attacks on the World Trade Center and the Pentagon, transportation security has been a major issue. Airports and ports are checking passengers and cargo, but military and engineering judgment indicates that the complete protection of key facilities is not feasible or cost-effective. States have been encouraged to "deter, detect, defend and design." The objective of the counter-terrorism measures is to reduce exposure to terrorist activities rather than try to provide full protection, which is unachievable.

Transportation Implications

Improving security includes improving emergency response; maintaining reliable communications among transportation agencies, law enforcement, rescue and medical services, and the public; and developing cost-effective security measures for public transportation and freight transportation facilities and infrastructure. A key component is improving the evacuation and emergency response capabilities of the urban roadway system.

Improving security also involves resolving conflicting objectives between security and privacy and between delay for security checks and efficient freight and passenger movements. These conflicts can have both safety and economic consequences.

Improving Safety

In spite of the increased number of miles traveled and the number of people traveling, fatalities and incidents involving almost all modes of transportation were lower in 2003 than they were a decade before. But there are still too many. In 2003, 512 people were killed and over 28,000 injured on Oregon's highways and roadways; 591 lives were lost in transportation-related incidents. The rate of roadway fatalities has steadily declined to 1.46 fatalities per 100,000 vehicle miles traveled while transportation-related deaths have declined to 16.7 per 100,000 population. Impaired driving, excessive speed and lack of seat belt use contributed to a significant proportion of fatal motor vehicle crashes. The economic costs for each motor vehicle fatality and injury are significant.

Transportation Implications

Attention to safety in transportation projects, programs and services must be a priority. Continued attention to engineering, safety education, traffic enforcement and emergency response can reduce crashes. The use of new technology including sensors to warn drivers of traffic and obstacles, and infrared cameras to improve visibility in inclement weather can enhance safety.

Institutional Relationships

While the efficient movement of people, goods and services requires seamless and well-maintained transportation, the transportation system is provided by a mix of federal, state, county and city governments, port districts, transit districts and authorities, and a variety of private entities that sometimes do not coordinate with each other or lack the authority to solve related problems. These complex institutional relationships impede our ability to address transportation challenges and seize opportunities across transportation modes and jurisdictions. The public expects us to deliver services efficiently and to manage our institutions and relationships so the transportation system works effectively, whoever owns or operates specific facilities.

Transportation Implications

If institutional relationships stay the way they are, the transportation system will not be as reliable or efficient for people, goods and services as possible. Managing the system across jurisdictional lines requires inter-jurisdictional communication and cooperation. The goal is interstate, state and local transportation systems that function seamlessly and technology that operates across boundaries and modes. Coordination beyond traditional jurisdictions is needed to develop major transportation improvements. To make freight rail movements efficient and increase passenger rail services, the State of Oregon, Amtrak and the mainline railroads must cooperate to make strategic investments. Various public transportation agencies and providers must coordinate to stretch services for seniors, the disadvantaged, rural residents and non-English speaking populations. Cities outside metropolitan areas and Metropolitan Planning Organizations must work together to solve regional problems.

Transportation Financing

The methods of funding transportation in Oregon are uncertain and inadequate. The current structure is inflexible; funds are thinly spread around the state; and capital for privately owned infrastructure is difficult to obtain. An efficient, well-maintained transportation system benefits everyone, but transportation infrastructure in poor condition increases vehicular wear, accidents and costs, and reduces travel options.

The purchasing power of the motor vehicle fuel tax is eroding because of inflation. In the past, the Oregon Legislature regularly increased the motor fuel tax to meet highway and roadway needs, but the last state motor vehicle fuel tax increase went into effect in 1993 to $.24 per gallon. The same erosion is occurring at the federal level since the federal motor vehicle fuel tax last increased in 1993 to $.184 per gallon. By 2030, inflation alone at 3.1 percent per year will reduce the tax's spending power by 40-50 percent. Gains in fuel efficiency and use of alternative fuels, while good for the environment and other goals, will further reduce revenues for state and local roads.

The Oregon Legislature funded major state and local bridge and roadway improvements through the Oregon Transportation Investment Acts of 2001-2003. These programs to fix critical bridges and roadways and maintain the economy were funded with bonds repayable with future revenues. While helpful, the programs affect Oregon's ability to use existing transportation revenue streams to fund new transportation projects until 2033. Between 2008 and 2033, bond debt service will reduce the available state highway modernization funding, and future federal funding is uncertain. This may mean that few highway capacity-adding projects can be funded. Essentially, we have mortgaged the future to meet today's needs. We need a new strategy to address the identified future needs.

About $1.3 billion more in revenue per year is needed to maintain and expand the publicly-owned components of the state, regional and local transportation system. The six-year federal transportation bill, passed in 2005, funds Oregon at an increased rate over the previous federal bill, but it only marginally addresses Oregon's highway, roadway and transit needs.

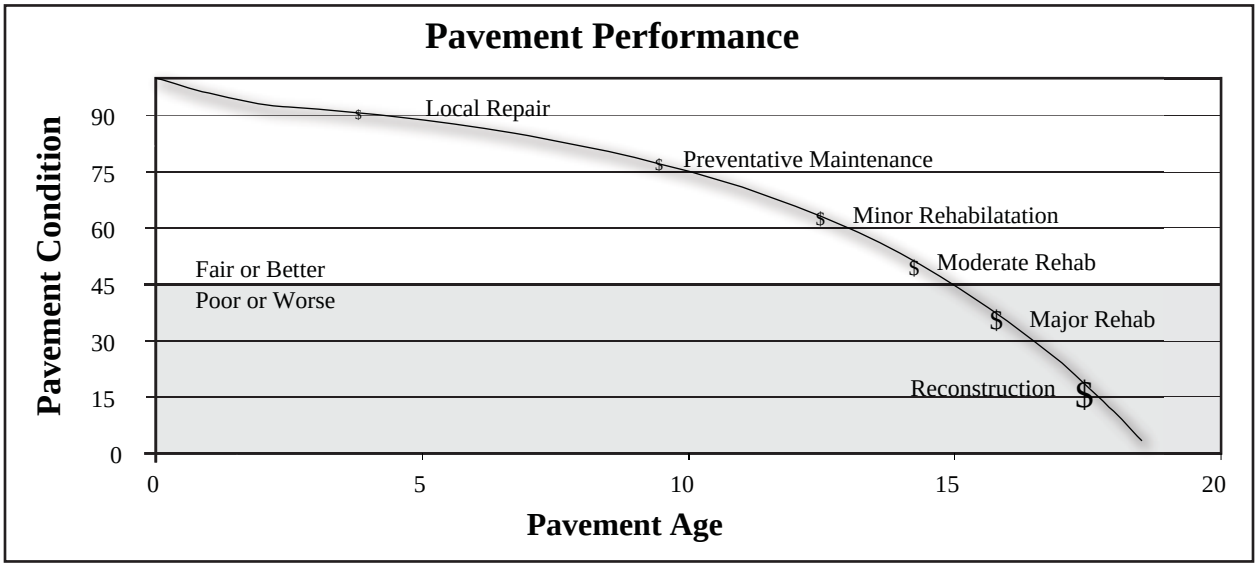
Critical needs in other modes are not adequately funded. Funding for passenger rail services depends on regular appropriations from the Oregon Legislature and Congress. Pressure is mounting to eliminate funding for Amtrak services. Infrastructure investments in rail mainlines are necessary to increase passenger and freight rail services, but improvements are currently dependent on the privately-owned national freight rail companies.

Small commercial airports need funding to modernize facilities to accommodate growth and maintain air services. Marine ports need Congressional appropriations to maintain channels, jetties and harbors. The Columbia River channel needs deepening to accommodate larger cargo oceanic vessels. Without major reconstruction, the jetties at the mouth of the Columbia may fail, significantly impacting shipping and ports. Other sources of funding for local roads and transit, including property taxes and federal timber receipts, do not adequately address future needs.

Transportation Implications

Continuing with the current limited and inflexible financial structure leaves decision-makers with a "band-aid" investment approach. As the purchasing power of taxes erodes, roadway and bridge conditions, safety and operations will deteriorate. Congestion will increase. Bottlenecks will continue to frustrate highway and rail users. Intercity bus and rail passenger services will continue to be inadequate and uncertain. Fewer public transit routes and services will be available. Smaller airports may lose air service, leaving passengers to find other alternatives or go longer distances to services. Without increased funding, many marine ports may not be viable because of lack of dredging and maintenance of jetties, docks and other facilities.

Figure 3: Pavement Condition Curve



Maintenance of roadway pavements in fair or better condition costs significantly less than rehabilitating or reconstructing those in poor condition.

Without new funding sources, most public dollars will continue to be used for specific transportation purposes as they traditionally have, making it more difficult to maximize transportation options for passengers and shippers. Inflexible funding will reduce our ability to address multimodal transportation system problems comprehensively when solutions require shifting available funds. Scarce public dollars will continue to be spread throughout the state.

Regardless of funding levels though, transportation agencies and authorities must continuously hold down costs and make the most of what we have. We must create efficiencies whenever possible, but taken alone these will not come close to providing the revenue necessary to meet our transportation needs.

Oregon's Opportunities

Although the challenges facing the transportation system are significant, Oregon is positioned to respond to them.

- Our basic transportation infrastructure is in place and in relatively good condition; we have a solid foundation for maintaining and enhancing the system. Most of the larger urban areas have public transit services. Bridges, pavements and railroads are being repaired, and the first stage of Columbia River dredging has begun.

- We have the transportation infrastructure and the geographic position to connect to the international economy. Major highways, railroads, airports and port facilities enable products from our industries, farms and forests to be distributed worldwide.

- To relieve congestion and increase safety, innovative technology is already a part of several metropolitan transportation systems and is spreading to other parts of the state and interstate. The Oregon Department of Transportation (ODOT) and the Metropolitan Planning Organizations have developed Intelligent Transportation System deployment plans to maximize the use of the road system including increased traffi c signal coordination and incident management.

- TripCheck, a traveler information website (https://www.tripcheck.com), is in operation, allowing travelers and shippers to plan their trips using private and public facilities and avoiding congestion. Metropolitan areas are developing similar websites.

- Sustainability practices are being implemented from farms to urban areas. Farmers are developing new plants that can provide natural replacements for traditional engineered drainage systems and sound barriers. Others are developing crops for use as biofuel. Governments and major corporations are using green building and energy practices. The state is well-positioned to foster the development of green transportation industries.

- Our large urban areas are using public transit and other alternatives that save fuel; commuting via bicycle is growing. Cities are planning compact and mixed use developments that serve the needs of seniors and other people while conserving fuel and providing transportation options.

- ODOT is involved in expanding passenger rail services in the Willamette Valley and intercity bus services throughout the state. The state is assisting short line railroads to preserve rail connections for numerous communities and businesses.

- ODOT and natural resource-related state and federal agencies have a collaborative process for environmental permitting and performance.

- Oregon has a land use program that emphasizes development of compact communities and integration of appropriate land uses and transportation. The Transportation Planning Rule requires state, metropolitan regions and larger cities and counties to prepare transportation system plans.

- State agencies are preparing emergency response plans in coordination with local jurisdictions.

- State and local governments are targeting critical safety problems through education, engineering, enforcement and emergency response.

- State, regional and local organizations are collaborating on difficult transportation issues:

    - ODOT's Area Commissions on Transportation (ACTs), advisory bodies of local government officials, citizens and business people, discuss all aspects of transportation, focusing on the state transportation system.

    - Interagency teams and citizen advisory groups on sustainability, global warming and economic revitalization demonstrate how to develop comprehensive strategies with transportation components.

    - Freight shippers and transportation providers serve on the Oregon Freight Advisory Committee to ensure that state policies and projects consider freight and economic issues.

    - The Aviation Board and Bicycle/Pedestrian, Freight, Public Transportation, Rail, and Transportation Safety Advisory Committees and local government transportation committees are addressing critical issues.

Other initiatives are underway to address transportation problems:

- An ODOT task force examined alternatives to the motor fuel tax and is conducting a demonstration project for one alternative.
- The ODOT Office of Innovative Partnerships is partnering with the private sector to develop major projects.
- Metro and ODOT are exploring the possibility of tolling and pricing roads.
- The Oregon Legislature created a series of three Oregon Transportation Investment Acts to fund needed state and local road and bridge repairs and enhancement.
- The 2003 Oregon Legislature created a new research and development fund for transportation technology.
- The 2005 Oregon Legislature passed a funding package recognizing infrastructure needs across modes.
- In the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Congress authorized the creation of a National University Transportation Center involving a partnership of Oregon state universities to research critical transportation issues.

We have the opportunity to be a leader in transportation efficiency. Our transportation system can be so effective and reliable that businesses and industries can continue to be attracted to the state. We can lead in developing practices that allow us to respond to environmental degradation and lessen the impacts of global warming and peaking of oil supply. The challenges are great, but we have started to meet them.

The Oregon Transportation Plan's Purpose and Process

The Oregon Transportation Plan is the state's long-range multimodal transportation plan for Oregon's airports, bicycle and pedestrian facilities, highways and roadways, pipelines, ports and waterway facilities, public transportation, and railroads.

It is a comprehensive 25-year plan for the transportation system to provide economic efficiency, orderly economic development, safety and environmental quality. Required by Oregon and federal statutes, the OTP guides development and investment in the transportation system through:

- Transportation goals and policies,
- Transportation investment scenarios and an implementation framework, and
- Key initiatives to implement the vision and policies.

The Plan guides statewide multimodal and modal/topic plans and regional and local transportation system plans. Although the OTP does not identify specific projects for development, it provides a framework for prioritizing transportation improvements and developing funding. Changing funding will require legislative actions over time.

Three policy committees and a Steering Committee developed the OTP over a two-year period. Committee members represented federal, state, regional and local governments, transportation agencies, transportation providers, business, environmental and safety advocacy groups, and citizens. The project staff prepared background papers and analyzed policy options using a variety of resources including the statewide transportation, land use and economic model. Based on background papers and analyses, the Committees crafted the vision, goals, policies, strategies, investment scenarios and key initiatives. The Oregon Transportation Commission reviewed the Plan before sending it out for public review. Over 1100 Oregonians participated in 58 meetings; more commented through the OTP website. The Department conducted formal and informal surveys to gauge public opinion on OTP issues; 1500 Oregonians participated in the formal survey and over 200 in the informal. Based on the comments, the Committees and Commission modified the Plan. The Commission asked for additional public review of the modified Plan before holding a public hearing and adopting the Plan.

The Plan's Assumptions

The OTP makes basic assumptions based on background papers, technical analyses, committee discussions and public comment:

- Oregonians expect to get the most value possible from transportation funding.
- Maintaining existing facilities and services, managing transportation systems efficiently and optimizing technologies are basic to delivering transportation in Oregon.

- Oregon's transportation system needs to accommodate the increased population and economic growth.
- Effective transportation is necessary to support Oregon's businesses and promote and sustain the well-being of residents and communities statewide.
- Freight tonnage is expected to increase by 80 percent by 2030.
- Transportation strategies have to adapt to global environmental and economic changes.
- To respond to global warming, Oregon should take measures to reduce carbon emissions and develop fuel alternatives.
- To respond to uncertain worldwide petroleum supply and high fuel prices, Oregon should support compact land uses, transportation demand management and transportation modes that have alternative or highly efficient fuel supplies.
- Although the state land use program may change, basic land use and transportation-related programs are expected to continue.
- The Portland metropolitan area is the economic hub of the state, but Oregon's economic vitality is dependent on all parts of the state.
- Rural areas have unique problems involving isolation and low density, but responses to the problems are also beneficial to urban areas.
- Bicycle and pedestrian facilities provide needed transportation options for moving around communities.
- Individuals' choices will be key to successful implementation of the OTP.

Underlying Themes and Vision

The Oregon Transportation Plan's goals, policies, strategies and implementation framework respond to the challenges facing Oregon's transportation system. Underlying the goals, policies, strategies and implementation framework are five fundamental themes:

- Accessibility and mobility,
- Economic development,
- Equity,
- Safety, and
- Sustainability.

The Vision

The Vision defines the kind of transportation future we want to build and the outcomes we want to achieve.

> By 2030, Oregon's transportation system supports people, places and the economy. We travel easily, safely and securely, and so do goods, services and information. Efficient vehicles powered by renewable fuels move all transportation modes. Community design supports walking, bicycling, travel by car and transit wherever appropriate. Our air and water are dramatically cleaner, and community sensitive and sustainable transportation solutions characterize everything we do.
>
> Oregonians and visitors have real transportation choices and transfer easily between air, rail, motor vehicles, bicycles and public transportation while goods flow just in time through interconnected highway, rail, marine, pipeline and air networks. Our communities and economies – large and small, urban and rural, coastal and mountain, industrial and agricultural – are connected to the rest of Oregon, the Pacific Northwest and the world. Land use, economic activities and transportation support each other in environmentally responsible ways.
>
> We excel in using new technologies to improve safety and mobility. We maximize the use of existing facilities across traditional jurisdictions and add capacity strategically. Public/private partnerships respond to Oregonians' needs across all transportation modes. Transportation system benefits and burdens are distributed fairly, and Oregonians are confident transportation dollars are being spent wisely. By 2030, Oregonians fully appreciate the role transportation plays in their daily lives and in the region's economy. Because of this public confidence, Oregonians support innovative, adequate and reliable funding for transportation.

The Vision is carried out through the Plan's goals, policies, strategies and implementation framework. These are grounded in the Plan's legal context and the transportation system's existing roles and responsibilities.

The Legal Context of the Plan

Duties and Responsibilities of the Oregon Transportation Commission

Development of the Oregon Transportation Plan fulfills a primary legal responsibility of the Oregon Transportation Commission (OTC) under ORS 184.618(1):

> As its primary duty, the Oregon Transportation Commission shall develop and maintain a state transportation policy and a comprehensive, long-range plan for a safe, multimodal transportation system for the state which encompasses economic efficiency, orderly economic development and environmental quality. The plan shall include, but not be limited to, aviation, highways, mass transit, pipelines, ports, rails and waterways. The plan shall be used by all agencies and officers to guide and coordinate transportation activities and to insure transportation planning utilizes the potential of all existing and developing modes of transportation.

ORS 184.618(1) requires state agencies to use the OTP to "guide and coordinate transportation activities," but it does not give the OTC authority to impose OTP goals, policies and performance recommendations on other than state agencies. However, the OTP operates in the legal context of the State Agency Coordination Program and the Land Conservation and Development Commission's Transportation Planning Rule which impose additional requirements and authority in the planning process for other jurisdictions. The OTP also must comply with federal legislation.

State Agency Coordination Program

The Oregon Transportation Commission adopted ODOT's State Agency Coordination Program in September 1990. The program establishes procedures used by the Department to ensure compliance with statewide planning goals in a manner compatible with acknowledged city, county and regional comprehensive plans.

The adoption of a transportation policy plan falls under the requirements of the State Agency Coordination Program rules (OAR 731-15). They require ODOT to involve all interested parties in plan development or major amendment to the plan. The Department must ensure the plan is in compliance with all applicable statewide planning goals.

Transportation Planning Rule

The Transportation Planning Rule (OAR 660-012) implements Land Conservation and Development Commission's Statewide Planning Goal 12 (Transportation) and requires ODOT to prepare a transportation system plan (TSP) to identify transportation facilities and services to meet state needs. The Oregon Transportation Plan and adopted multimodal, modal/topic and facility plans serve as the state transportation system plan.

In addition to the requirements placed on ODOT, the Transportation Planning Rule requires metropolitan planning organizations and certain counties to prepare regional TSPs consistent with the adopted state TSP. Cities and counties must prepare local TSPs that are consistent with the state TSP and applicable regional TSPs. Since the Oregon Transportation Plan is the adopted TSP for the state, the Transportation Planning Rule requires that regional and local TSPs be consistent with the OTP. (See Figure 4.)

Federal Planning Regulations

The federal Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy For Users (SAFETEA-LU), passed in August 2005, continues many of the planning requirements of its predecessors, the Transportation Equity Act for the 21st Century (TEA-21) (1998) and the Intermodal Surface Transportation Efficiency Act (ISTEA) (1991). This statute requires states to conduct a statewide planning process that is coordinated with transportation planning activities carried out in metropolitan areas and that involves consultation with non-metropolitan areas, considering all modes of transportation. Each state must develop a long-range transportation plan for all areas of the state with a minimum 20-year forecast period.

Planning regulations in 23 CFR 450 implement the federal transportation statutes, reflect TEA-21 and will be updated to reflect SAFETEA-LU. They require “each state to carry out a continuing, comprehensive and intermodal statewide transportation planning process, including the development of a statewide transportation plan and transportation improvement program that facilitates the efficient, economic movement of people and goods in all areas of the State.” The plan should be continually evaluated and periodically updated as appropriate.

The Oregon Transportation Plan

The Oregon Transportation Plan’s goals, policies and strategies guide the development of state multimodal, modal/topic and facility plans and regional and local transportation system plans as shown in Figure 4. The Plan provides the framework for prioritizing transportation improvements and funding, but it does not identify specific projects for development. Projects are identified through facility plans and regional and local transportation system plans, and sometimes through modal plans. (See Figure 7.)

Figure 4: Transportation Planning Relationships

Transportation System Roles and Responsibilities

Introduction

Responsibility for transportation varies by mode. The Oregon Transportation Commission (OTC) is responsible for preparing the Oregon Transportation Plan and oversees the Department of Transportation's plan implementation, but it has no direct authority over many agencies and jurisdictions responsible for implementing the Plan. Understanding the organizational roles in transportation will help to understand how this Plan may be implemented.

ODOT manages the state highway system, supports passenger rail, public transportation, and bicycle and pedestrian facilities, and has overall responsibility for statewide transportation planning. The OTC, a five-member governor-appointed commission, establishes policy and oversees federal and state transportation fund management and distribution. Transportation associations and/or advisory groups advocate for the various modes. Some groups report directly to the OTC while others are private associations with limited affiliation with the state. Area Commissions on Transportation (ACTs) of local government, business and citizen representatives provide input to the OTC on local and regional transportation issues and projects.

The Oregon Department of Aviation maintains 28 public-use airports and manages funds for other public-use airports. Its seven-member governor-appointed Aviation Board is responsible for providing policy guidance and oversight to the Department.

Metropolitan Planning Organizations in the Bend, Corvallis, Eugene/Springfield, Medford, Portland and Salem/Keizer areas develop regional transportation plans and select roadway and transit projects for their areas. Local governments, transit agencies, port districts, railroads and the private sector all have responsibilities for critical parts of the transportation system.

Aviation

Oregon has over 400 public and private-use airports; 97 are public-use facilities. Oregon airports provide services to airline passengers, general aviation travelers, air cargo, air ambulance and military users as well as services to numerous businesses, agricultural users and resource management activities including fire suppression. The private sector provides most air transportation services. However, primarily public entities own and manage the airport facilities used by businesses.

The Port of Portland owns and operates the Portland International Airport (PDX), Oregon's largest airport. Jackson County owns and operates the Rogue Valley International Airport, and the North Bend Airport is under direction of the regional airport district. Cities own the airports at Eugene, Klamath Falls, Pendleton and Redmond. State, city, county, port and federal agencies, along with some private entities, own Oregon's general aviation airports. User fees including aviation fuel taxes, passenger facility charges, aircraft registration fees, landing fees, terminal and gate lease fees, and parking fees fund Oregon's public-use airports. Oregon's larger commercial service airports have the broadest funding options available for operating and capital improvements.

Many Oregon airports receive federal funds for capital improvements directly from the Federal Aviation Administration (FAA), primarily through the Airport Improvement Program. Federal aviation fuel taxes, federal excise taxes on airline tickets and cargo, and other sources support FAA operations and programs. Airport infrastructure financing is also available for publically owned airports from the Oregon Infrastructure Bank through ODOT and through the Oregon Economic and Community Development Department.

The 28 public-use airports owned and maintained by the Oregon Department of Aviation support general aviation uses, including emergency response and fire suppression activities. In addition to airport ownership, the Department develops aviation plans, and manages and distributes state and federal funds to public-use airports. The state's current funding priorities are maintaining runway pavement conditions and bringing airports up to federal navigational standards.

ODOT, regional and local governments monitor and program improvements to help maintain and improve roadway access to Oregon's airports. ODOT also coordinates with the Washington State Department of Transportation on bi-state access issues including improvements to Portland International Airport accessibility.

Bicycle and Pedestrian

Sidewalks, crosswalks, bike paths and marked bike lanes make up Oregon's urban area bicycle and pedestrian system. Highway shoulders serve as bikeways and walkways in rural areas. ODOT, cities and counties plan, construct and maintain Oregon's bicycle and pedestrian networks. Facility planning occurs through state, regional and local transportation system plans.

Federal and state highway funds and local revenues help fund local government bikeways and walkways. Bicycle and pedestrian facilities within a street, road or highway right-of-way are eligible for funding from the Oregon Highway Fund. ODOT and local governments must spend a minimum one percent of the state Highway Fund they receive on walkways or bikeways. Bicycle and pedestrian facilities are also eligible for federal Transportation Enhancement and Congestion Mitigation and Air Quality funds. The state develops the statewide bicycle and pedestrian plan and constructs and maintains state highway bicycle and pedestrian facilities, focusing on urban highways. About half the sidewalk and bikeway network on the state system, roughly 272 miles, is in place. ODOT administers state grants and provides advocacy and technical advice to cities and counties through code assistance and engineering standard recommendations. The state also carries out federal programs such as the "Safe Routes to School Program."

Intermodal Connectors

Intermodal connectors are facilities that link highways to freight or passenger intermodal terminals such as airports, bus terminals, pipeline terminals, rail stations, marine terminals, truck-rail facilities and warehouses. Ownership of intermodal connectors and facilities varies. Intermodal connectors are typically local or state-owned roads. Local governments own some passenger facilities, and the state owns some rail stations. Private companies own most freight facilities; in a few locations, port districts own marine terminals.

Pipelines

Private companies own and finance pipeline facilities. The Oregon Department of Energy does energy planning and forecasting and supports the Energy Facility Siting Council. The Council administers the siting process for new energy facilities such as natural gas electricity-generating plants and liquefied natural gas terminals. The Oregon Public Utility Commission regulates rates and services of the state's investor-owned utilities, including natural gas utilities.

Ports and Waterways

Of Oregon's 23 port districts, nine ports have intermodal freight marine terminals. The Coos Bay-North Bend area and Newport on the Oregon Coast have deep-draft freight terminal facilities. Deep-draft marine terminals also operate on the Oregon side of the Columbia River at Astoria, St. Helens and Portland. The Columbia-Snake River System is navigable by barge above Portland as far as Lewiston, Idaho. The Dalles, Arlington, Boardman (Morrow) and Umatilla operate shallow-draft freight terminals along this stretch of the river. Most marine freight in Oregon moves on the Columbia River below Portland and on the Willamette River in Portland. Commodities barged between upriver locations and Portland generally are transloaded to or from ships. Trucks typically move commodities to barge terminals on the Columbia River above Portland.

Port authorities operate with user fees and relatively modest tax bases, including property taxes. Major capital improvements often are funded with grants, loans or other revenues from federal, state or local sources. Private rail companies operate track that carries freight to and from ports. Individual ports, sometimes with state support, typically own on-site rail spurs and other rail improvements such as the Coos Bay rail bridge.

The state helps coordinate marine freight issues and planning through the Oregon Department of Economic and Community Development. The U.S. Corps of Engineers is responsible for coastal and river maintenance dredging and channel maintenance for authorized navigation channels. The Corps focuses these activities at the ports requiring dredging to move marine freight. The Port of Portland owns and operates a dredge to help maintain the navigation channel on the lower Columbia and Willamette Rivers. Private associations work with ports on marine transportation concerns and needs.

Public Transportation

Oregon has more than 230 public transportation providers including large transit districts, local governments, and non-profit and for-profit organizations such as privately-owned intercity bus service operators. These operators provided over 120 million trips during a one-year period spanning 2002-03, using about 1,558 vehicles for light rail, fixed route bus, demand response, special needs transportation and intercity bus services.

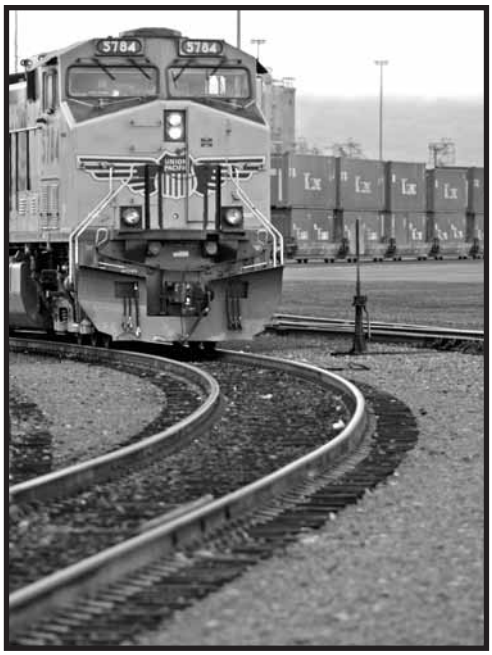
The Eugene/Springfield, Portland, Rogue Valley and Salem/Keizer metropolitan areas are home to Oregon's four largest public transportation providers. TriMet, Portland's transit provider, represents about 87 percent of the large provider system. Other public transportation services include rideshare, special transportation programs that support seniors and persons with disabilities, rural general public transportation, and intercity bus. Non-profits and private businesses typically support these services.

Local payroll taxes or property taxes and passenger fares and federal grants support most large transit program operations. Federal grants and programs such as the Federal Transit Administration's New Starts Program, Federal Surface Transportation Program (STP) funds, and the Congestion Mitigation and Air Quality Program provide funds for capital improvements. The 2003 Legislature established funding to support preservation of Oregon's fleet of transit buses using STP funds; this program was reinforced with additional funding in 2005. State lottery bonds and cigarette tax proceeds are also used to support transit improvements in Oregon especially for seniors and persons with disabilities without other transportation options.

The state's role has been to grant authority to local governments to generate local operating revenue, provide state funding for elderly and disabled transportation programs, and distribute federal grant money to local governments and non-profits. The ODOT Public Transit Division's primary focus is transit advocacy, planning, and small transit operator grant administration and management. School districts across the state, the Oregon Department of Human Services and the Oregon Department of Corrections also support transportation services.

Rail Freight and Rail Passenger

Twenty-two railroads with 2,404 track miles make up Oregon's rail system. About 53 percent is short line railroad track under public or private ownership. The Union Pacific (UP) and BNSF Railway Company (formerly the Burlington Northern & Santa Fe) are mainline operators who own the balance of the rail miles in Oregon. Major Oregon commodities shipped by rail include farm products, lumber and wood products, chemicals and allied products, and various pulp, paper and food products. Private rail companies own most rail lines in Oregon with limited public funding. Oregon and the federal government have provided assistance programs for private rail operators including infrastructure improvements, rehabilitation and preservation activities, and improvements at grade crossings.



Amtrak operates passenger trains on the Union Pacific north-south tracks from Washington to California. The state financially supports two of the three daily passenger train trips between Portland and Eugene and sponsors Amtrak Thruway bus services that connect 16 communities to train services.

The ODOT Rail Division has primary responsibility for ensuring compliance with state rail-related regulations, preparing the state rail plan, managing and marketing intercity passenger rail operations, managing publicly-funded railroad improvement projects, and administering rail crossing permits and safety inspections on rail equipment. The state owns some short line equipment, 170 miles of right-of-way in the Willamette Valley and occasionally short line railroads during transitions between owners.

Road and Highway System

Roads and highways form the basic circulation system for moving from home to businesses and other destinations. Trucks use the system to carry about 76 percent of commodity tonnage to destinations in and outside the state. State, city and county governments, port districts and federal agencies own, maintain, operate and expand the state's road and highway networks. The state and federal governments provide for through movements and intercity travel, and the local system provides for intra-city movements and local access to property. The federal government provides roads on federal lands, provides vehicle fuel tax dollars and sets standards for infrastructure improvements involving federal funding. ODOT's role as highway manager is to plan, construct, operate and maintain the state highway system.

Oregon collects highway funds through motor fuel taxes, vehicle registration fees, title fees and the weight-mile tax for heavy vehicles. ODOT administers a portion of the state Highway Fund and federal aid funds for state highway uses. Cities and counties control other portions of the Highway Fund for street and road purposes and receive some federal aid funds, U.S. Forest Service and Bureau of Land Management allocations, property taxes and system development charges. The private sector helps build the local transportation system through subdivision development as well as pay for road construction and maintenance through local taxes and system development charges.

Transportation planning includes coordinating state, regional and local transportation system plans. Three of the six federally designated Metropolitan Planning Organizations (MPOs), that is, Eugene/Springfield, Metro, and Salem/Keizer, have federal Transportation Management Area (TMA) status. TMA status allows federal funds to flow directly from the federal government to the TMA.

GOALS, POLICIES AND STRATEGIES

GOALS, POLICIES AND STRATEGIES

Goal 1 – Mobility and Accessibility

Overview

Oregonians want a well-integrated transportation system so they can travel easily within their communities and to other parts of the state, the nation and the world. They value the ability to travel for work, recreation and personal business, and the ability to transport products to market. Goal 1, Mobility and Accessibility, supports transportation choices and good connections between modes within a healthy environment, a healthy economy and healthy communities.

Oregon's basic intercity transportation system is in place. But new infrastructure is needed to accommodate population and economic growth, and existing infrastructure needs updating or replacing so Oregon can remain livable and competitive. Interstate and statewide highways provide mobility for long-distance travel for people, services and goods. Mainline and short line railroads haul freight within Oregon and connect with rail lines across the country. State-supported passenger rail services operate from Eugene to Portland with additional Amtrak service to Los Angeles, Vancouver, B.C. and points east. Buses serve communities across the state via Thruway bus services and other intercity bus companies. Commercial airports send people and high value goods across the country and the world while general aviation airports serve communities throughout the region. Barges carrying bulk and container cargoes on the Columbia River transfer goods to ocean-going vessels. Ships move goods globally to and from key Oregon ports. Pipelines carry oil and natural gas along major corridors across the state. Much of this system is showing the effects of decades of use, and capacity has not kept up with population growth and economic activities.

Access to transportation options, connections from one kind of transportation to another, and conflicts between high speed long-distance travelers and moderate-low speed travel within communities can be improved. For persons with disabilities, low income residents, non-English speaking citizens and elderly populations, access to basic transportation services is essential to employment and quality of life, but they may need assistance in gaining access. Features accommodating mobility for people with disabilities and designs for an aging population need to be integrated into system improvements.

Congestion represents a growing threat to mobility and Oregon's competitive advantage. During the past 25 years, population has increased significantly, and traffic on major roads in urban areas has grown about four times faster than the number of roadway lane-miles. Growing congestion

increases travel costs for people and businesses across the state. Increased travel costs directly affect competitive advantages for Oregon businesses and residents who must compensate for longer and more unreliable travel times. Congestion not only affects businesses and residents in Oregon's metro areas, but it also affects those in other parts of the state as goods and services have to travel through congested areas to reach markets and global transportation networks.

Since building new infrastructure can be very expensive and funding is limited, construction of new highways, added highway lanes, rail lines or airports in the future must be strategic. In addition to building new facilities, emphasis must be on less costly solutions—maintaining and preserving assets, improving operations, removing bottlenecks, using technology, and linking appropriate land uses and transportation.

The Oregon Transportation Plan sets the overall policy and investment strategies for Oregon's transportation system. State facility plans, regional and local transportation system plans, and master plans address specific transportation problems and location-specific tradeoffs among transportation modes and between increased operations and increased capacity.

Goal 1 – Mobility and Accessibility

To enhance Oregon's quality of life and economic vitality by providing a balanced, efficient, cost-effective and integrated multimodal transportation system that ensures appropriate access to all areas of the state, the nation and the world, with connectivity among modes and places.

Policy 1.1 – Development of an Integrated Multimodal System

It is the policy of the State of Oregon to plan and develop a balanced, integrated transportation system with modal choices for the movement of people and goods.

Strategy 1.1.1

Plan and develop a multimodal transportation system that increases the efficient movement of people and goods for commerce and production of goods and services that is coordinated with regional and local plans. Require regional and local transportation plans to address existing and future:

- Centers of economic activity,
- Routes and modes connecting passenger facilities and freight facilities,
- Intermodal facilities and industrial land, and
- Major intercity and intra-city transportation corridors and supporting transportation networks.

Strategy 1.1.2

Promote the growth of intercity bus, truck, rail, air, pipeline and marine services to link all areas of the state with national and international transportation facilities and services. Increase the frequency of intercity services to provide travel options.

Strategy 1.1.3

Identify transportation needs that extend beyond state borders to increase multimodal passenger and freight connections to state systems and to enhance interstate access to major destinations within and beyond Oregon. Cooperate with neighboring states to improve interstate travel.

Strategy 1.1.4

In developing transportation plans to respond to transportation needs, use the most cost-effective modes and solutions over the long term, considering changing conditions and based on the following:

- Managing the existing transportation system effectively.
- Improving the efficiency and operational capacity of existing transportation infrastructure and facilities by making minor improvements to the existing system.
- Adding capacity to the existing transportation system.
- Adding new facilities to the transportation system.

Policy 1.2 – Equity, Efficiency and Travel Choices

It is the policy of the State of Oregon to promote a transportation system with multiple travel choices that are easy to use, reliable, cost-effective and accessible to all potential users, including the transportation disadvantaged.

Strategy 1.2.1

Develop and promote inter and intra-city public transportation.

- Optimize existing services and find innovative ways to augment public transportation infrastructure and travel options to levels appropriate to the community size and to an effective network of connections.

- Where opportunities for coordination with other transportation service providers exist, work to integrate programs and align investments of service providers involved with the design, delivery and funding of mobility services. Collaborate with human service agencies to meet transit needs of seniors, persons with disabilities, low income and non-English speaking populations. Focus on the mobility management and customer needs of all potential users.

- Use information technologies to effectively link customers and transportation services, and support local transportation options or transportation demand management programs including individualized marketing programs.

- Promote frequent public transit, intercity bus and passenger rail services as a method to increase ridership and decrease travel times, especially during peak travel periods and along heavily traveled highway corridors.

Strategy 1.2.2

Better integrate, locate, and design passenger and freight multimodal transportation facilities and connections to expedite travel and provide travel options. Locate and design transportation facilities to connect with other modes.

- Locate bus and passenger train stations together within cities and throughout the state with integrated travel options and information.

- Coordinate and support the development of intermodal connections between air, marine, pipeline, public transportation, rail and road transportation.

- Design new roadways and retrofit existing roadways to support multimodal functions (e.g. construct Americans with Disabilities Act (ADA) ramps, sidewalks, crossings, bus pullouts and bicycle facilities) within existing urban and rural communities, new developments, and especially locations where public transportation exists or will likely exist. Design roads to support operations that give priority to transit vehicles as appropriate.

- Support the development of street networks that form grids in order to increase connections and travel options (e.g. walking, biking and transit). Consider developing standards for connecting streets in urban areas to improve local traffic movements.

- Support local government efforts to plan and provide an adequate system of arterial and collector roadways and bicycle and pedestrian facilities to serve planned land uses and connect communities.

- Encourage development of a system of open access passenger facilities throughout the state to expedite transfers between modes, routes and carriers. Encourage development of efficient intermodal freight facilities, open to access to all where feasible, to encourage effective shifts among modes. Support information systems and technologies that facilitate the transfer of people and goods.

Policy 1.3 – Relationship of Interurban and Urban Mobility

It is the policy of the State of Oregon to provide intercity mobility through and near urban areas in a manner which minimizes adverse effects on urban land use and travel patterns and provides for efficient long distance travel.

Strategy 1.3.1

Use a regional planning approach and inter-regional coordination to address problems that extend across urban growth boundaries.

Strategy 1.3.2

In coordination with affected jurisdictions, develop and manage the transportation network so that local trips can be conducted primarily on the local system and the interstate and statewide facilities can primarily serve intercity movement and interconnect the systems. Develop, maintain and improve parallel roadways, freight rail, transit, bus rapid transit, commuter rail and light rail to provide alternatives to using intercity highways for local trips where possible.

Goal 2 – Management of the System

Overview

Effective management of the transportation system can help address challenges stemming from a growing population, competition in the global economy, integration of the transportation system, insufficient funding and other critical issues. Transportation agencies and providers can extend transportation capacity, improve operational efficiency, and improve safety and security through transportation demand and transportation system management across modes and jurisdictions. These are the focus of Goal 2, Management of the System.

Transportation demand management is an array of techniques that can be used to address congestion and sustainability concerns by seeking to reduce the need to travel. Practices include locating traffic generators near public transit and other transportation facilities, encouraging carpools, and providing flexible work schedule and telework options. Peak period pricing is another technique for reducing demand on a highway. It involves applying tolls which vary according to the level of congestion on the highway. Charging higher tolls when congestion is heavier encourages highway users to drive during off-peak periods or to use alternate modes or routes.

Transportation system management involves better managing the way transportation operates. Techniques include asset management, protection of transportation corridors, use of Intelligent Transportation System technology, reduction of conflicts between transportation modes and users, speed management, and increased cooperation and communication among jurisdictions and providers.

Both demand and system management can enhance capacity at generally less cost than adding new infrastructure. A Texas Transportation Institute study found that more than 10 percent of the travel delay in the Portland metropolitan area was avoided because of ramp metering, incident management and other operations techniques.

Goal 2 – Management of the System

To improve the efficiency of the transportation system by optimizing the existing transportation infrastructure capacity with improved operations and management.

Policy 2.1 – Capacity and Operational Efficiency

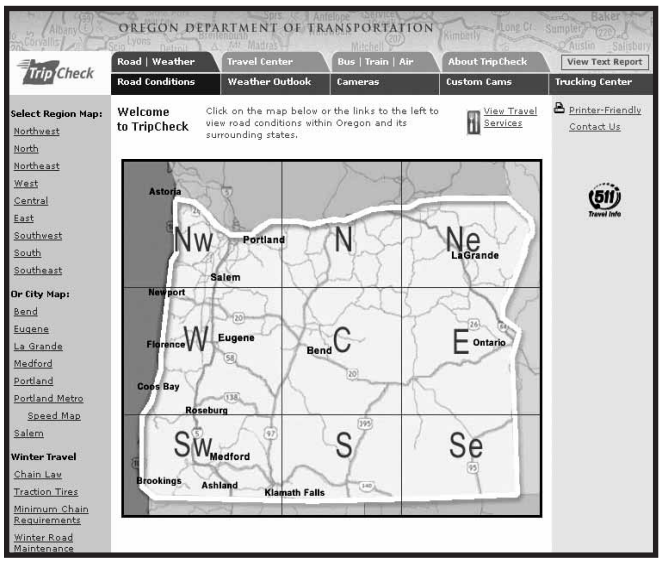
It is the policy of the State of Oregon to manage the transportation system to improve its capacity and operational efficiency for the long term benefit of people and goods movement.

Strategy 2.1.1

Promote transportation demand management and other transportation system operations techniques that reduce peak period travel, help shift traffic volumes away from the peak period and improve traffic flow. Such techniques may include high occupancy vehicle lanes with express transit service, truck-only lanes, van/carpools, park-and-ride facilities, parking management programs, telework, flexible work schedules, peak period pricing, ramp metering, traveler information systems, traffic signal optimization, route diversion strategies, incident management and enhancement of rail, transit, bicycling and walking.

Strategy 2.1.2

Protect the integrity of statewide transportation corridors and facilities from encroachment by such means as managing access to state highways, limiting interchanges, creating safe rail crossings and controlling incompatible land use around airports, ports, pipelines and other intermodal passenger and freight facilities.



Strategy 2.1.3

Use advanced traveler information devices, incident management, speed management, improvements to signaling systems and other technologies to extend the efficiency, safety and capacity of transportation systems. Develop protocols and implement methods for alternate routing to respond to incidents.

Strategy 2.1.4

Enhance efficiency and reduce conflicts among transportation users, for example, by reducing bottlenecks and geometric constraints, and improving or removing modal crossings. Provide for a network of arterials and highways to efficiently move goods and services while enhancing safety and community movements on local streets. Provide for signal prioritization and road patterns that support public transit. Support rail reconfiguration and additional tracks that benefit passenger and freight movements.

Strategy 2.1.5

To increase efficiencies, use value engineering, that is, a systematic review process used to analyze a project's design and make recommendations to improve the design and reduce overall costs. Use other innovative techniques to deliver transportation projects more efficiently.

Strategy 2.1.6

Support incentives and regulations for locating high traffic generators such as medium and high density housing, retail centers, hospitals, universities and mixed use development near fixed route, high frequency public transportation and/or public transportation stations.

Strategy 2.1.7

Consider using a systematic approach to pricing across modes when appropriate.

Strategy 2.1.8

Evaluate peak period pricing and other incentives such as employer-paid transit passes and telework programs to reduce highway capacity problems.

Strategy 2.1.9

Evaluate the benefits of constructing tolled express lanes for purposes of ensuring consistent trip reliability in congested corridors.

Policy 2.2 – Management of Assets

It is the policy of the State of Oregon to manage transportation assets to extend their life and reduce maintenance costs.

Strategy 2.2.1

Continue to provide and support a strong policy of size and weight enforcement including innovative technologies to protect and preserve the existing infrastructure. Use innovative technologies to route over-size and over-weight vehicles.

Strategy 2.2.2

Develop, enhance and implement management systems for transportation assets including roadway pavement, bridges, right-of-way, public transportation facilities and equipment, safety features, congestion and other infrastructure. Promote new technologies and strategies to improve the way assets are maintained.

Strategy 2.2.3

Work with local, state and federal governments and agencies to revise regulations and standards to improve the efficiency and reliability of goods and passenger movements consistent with environmental and safety goals and regulations.

Goal 3 – Economic Vitality

Overview

Oregon's economy is diverse, relying on forest products, agriculture, manufacturing and technology-based businesses and a variety of service-related industries. The state's businesses require a range of transportation services – from low cost, low speed to frequent, reliable fast services – and an effective multimodal transportation system to reach markets and conduct business nationally and internationally in a global economy.

Oregon's transportation system is part of a broader Northwest and West Coast regional, national and international transportation system. Maintaining good access to those systems and supporting federal efforts to improve them is important to Oregon.

While the Portland metropolitan area is the economic hub of the state with a wide diversity of businesses and key transportation facilities, Oregon's economy is dependent on products and services from all parts of the state. The transportation system must provide connections statewide so people and goods from all areas of Oregon can contribute to and benefit in the state's economic vitality.

ODOT's 2005 commodity flow study forecasts the total number of tons moved to, from and within Oregon will increase by 80 percent from 1997 to 2030. The value of goods moved is expected to increase from $512 billion to $1,324 billion. International freight movements are forecast to increase at a faster rate than domestic freight transportation. Shippers, transportation providers and consumers depend on an efficient, reliable transportation system. Goal 3, Economic Vitality, emphasizes coordinating planning with economic strategies, improved operations, good intermodal connections, innovative technology, and cooperation and communication to improve efficiency and reliability. The goal is to give Oregon a competitive advantage by moving high value goods faster and by moving all commodities efficiently and reliably across modes.

The movement of people is also critical for economic vitality. Information-based and service-related industries are important parts of Oregon's economy. Workers must be able to get to their jobs, whether they are in metropolitan areas or rural communities. People must be able to travel for business within Oregon and to other states and countries. Tourism, an important part of Oregon's economy in all parts of the state, is stronger when people are able to easily access the transportation system and transfer from mode to mode and place to place.

Goal 3 also recognizes that transportation improvements can stimulate active downtowns and that economic strategies and transportation need to be integrated. Research and innovative practices can help deliver transportation services and infrastructure more effectively.

Goal 3 – Economic Vitality

To promote the expansion and diversification of Oregon's economy through the efficient and effective movement of people, goods, services and information in a safe, energy-efficient and environmentally sound manner.

Policy 3.1 – An Integrated and Efficient Freight System

It is the policy of the State of Oregon to promote an integrated, efficient and reliable freight system involving air, barges, pipelines, rail, ships and trucks to provide Oregon a competitive advantage by moving goods faster and more reliably to regional, national and international markets.

Strategy 3.1.1

Develop coordinated state, regional and local transportation plans and master plans that address current and future freight needs, issues and economic strategies. Co-locate economic activities and appropriate transportation facilities with convenient and reliable access to freight transportation options.

Strategy 3.1.2

Work with local governments, ports, state agencies and landowners to protect industrial land near key transportation corridors and facilities.

Strategy 3.1.3

Encourage innovative technology, management and information sharing that will facilitate goods movement and economic strategies.

Strategy 3.1.4

Encourage communication among shippers, transportation providers, government agencies and jurisdictions to address freight transportation issues, challenges and opportunities across modes.

Strategy 3.1.5

Improve system efficiency and reduce conflicts by developing grade separations at rail and highway or roadway crossings whenever appropriate, by improving transportation networks and by enhancing connections with intermodal facilities.

Strategy 3.1.6

Systematically address barriers to efficient truck movements on roads and highways, including intermodal connectors, while balancing the needs and safe access of all modes.

Strategy 3.1.7

Give priority to freight mobility projects that are located on identified freight routes of statewide or regional significance, remove identified barriers to the safe, reliable and efficient movements of goods, and facilitate public and private investment that creates or sustains jobs.

Strategy 3.1.8

Encourage public/private partnerships to make strategic investments to respond to current and forecasted needs of rail shippers and transportation providers and to provide multimodal transportation options for industry.

- Support the improvement of existing and the development of new rail facilities to meet intermodal freight transportation needs.
- Retain and improve local rail service to the maximum extent possible.
- Use public and private investments to eliminate bottlenecks in key areas.
- Protect abandoned rail rights-of-way for alternative or future use.

- Consider complementary rail uses, including tourist trains and commuter rail service, to extend the viability of rail lines.

- Consider strategic relocation of rail lines to improve transportation system efficiency or safety.

Strategy 3.1.9

Cooperate and coordinate with state and federal agencies, other states, shippers and transportation providers to maintain and enhance current and forecasted air freight and passenger movements by supporting strategic, market-supported investments in air cargo terminals, airport facilities and equipment and links with surface transportation systems.

Strategy 3.1.10

Work with port districts, state and federal agencies, shippers and transportation providers to support strategic investments in marine transportation facilities to respond to current and forecasted needs.

- Facilitate the improvement of existing and development of new market-supported intermodal connections between marine transportation and other modes.

- Support the maintenance and improvement of waterways and port facilities to support the contribution of Oregon's ports to local and regional economies and to maintain and enhance their competitiveness regionally, nationally and internationally.

Strategy 3.1.11

Support and facilitate expansion and development of capacity in pipelines to meet market demand and supply and enhance links with other modes.

Policy 3.2 – Moving People to Support Economic Vitality

It is the policy of the State of Oregon to develop an integrated system of transportation facilities, services and information so that intrastate, interstate and international travelers can travel easily for business and recreation.

Strategy 3.2.1

Increase coordination and cooperation among federal and state agencies, regional and local governments and private entities to facilitate travel. Support trip planning, convenient and reliable intermodal connections and shared tickets among carriers so that travelers can easily move from one mode to another and place to place.

Strategy 3.2.2

In regional and local transportation system plans, support options for traveling to employment, services and businesses. These include, but are not limited to, driving, walking, bicycling, ride-sharing, public transportation and rail.

Strategy 3.2.3

Support intercity bus and intercity, interstate and international rail and air services to facilitate business and recreational travel.

Strategy 3.2.4

Address scenic values in state, regional and local planning, improvements and maintenance. Support state and federal Scenic Byways and Tour Routes and connections to parks and recreation areas.

Strategy 3.2.5

Promote tourism via air, bicycles, motor vehicles, rail and ships. Support connections to recreational trails.

Policy 3.3 – Downtowns and Economic Development

It is the policy of the State of Oregon to provide transportation improvements to support downtowns and to coordinate transportation and economic development strategies.

Strategy 3.3.1

Coordinate private and public resources to provide transportation improvements and services to help stimulate active and vital downtowns, economic centers and main streets.

Strategy 3.3.2

Integrate transportation planning and investments with state and local economic development strategies and plans.

Policy 3.4 – Development of the Transportation Industry

It is the policy of the State of Oregon to promote, incubate and develop transportation-related industry and services in Oregon.

Strategy 3.4.1

Partner with universities and the private sector to develop products for market which may reduce the cost of maintenance and preservation, extend the useful life of transportation facilities or improve safety.

Strategy 3.4.2

Partner with public transportation providers and the private sector to develop innovative ways to deliver goods and services more efficiently such as public transportation services in rural areas.

Strategy 3.4.3

Partner with the private sector and public agencies to foster sustainable transportation industries and practices.

Goal 4 – Sustainability

Overview

The concept of sustainability is increasingly applied to help ensure that future generations equitably enjoy the quality of life common to Oregonians today. Sustainability means creating a balance between environmental, economic and community objectives. Sustainability takes into account both local and global views, applying a timeframe that considers costs over lifetimes rather than biennia.

Transportation is a focus of sustainability because it is prominent in many issues that sustainable development and practices aim to address, including urban sprawl, global warming and peaking of the world oil supply. A sustainable transportation system strives to achieve objectives including, but not limited to, the following:

- Reinforce livable and economically strong communities,
- Encourage modal choice throughout the state,
- Support efficient land uses that reduce travel distances and increase travel options,
- Distribute system benefits and burdens equitably across society,

- Be affordable,
- Improve safety to reduce injuries and fatalities,
- Reduce emissions of greenhouse gases to reduce climate change,
- Protect air and water quality from pollutants,
- Operate with clean and fuel-efficient vehicles,
- Use maintenance and construction practices that are compatible with native habitats and species and which consider habitat fragmentation concerns,
- Minimize raw material use and disposal during construction and maintenance, and
- Apply life-cycle costs to transportation investments.

Goal 4, Sustainability, sets a policy framework that applies to all types of travel and transportation investments. The policies provide guidance on environmental quality, energy supply and creating communities that support the integration of land use and transportation including the key fundamentals of building street networks, connecting modes and utilizing land in efficient ways that reduce travel. Aesthetic and environmental values are underscored as a way to maintain Oregon as a prosperous place to visit, live, work and play. The policies recognize the importance of working with other agencies and jurisdictions on sustainability issues and working with other agency plans such as the *Oregon Conservation Strategy*.

Goal 4 – Sustainability

To provide a transportation system that meets present needs without compromising the ability of future generations to meet their needs from the joint perspective of environmental, economic and community objectives. This system is consistent with, yet recognizes differences in, local and regional land use and economic development plans. It is efficient and offers choices among transportation modes. It distributes benefits and burdens fairly and is operated, maintained and improved to be sensitive to both the natural and built environments.

Policy 4.1 – Environmentally Responsible Transportation System

It is the policy of the State of Oregon to provide a transportation system that is environmentally responsible and encourages conservation and protection of natural resources.

Strategy 4.1.1

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

Strategy 4.1.2

Encourage the development and use of technologies that reduce greenhouse gases.

Strategy 4.1.3

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

Strategy 4.1.4

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

Strategy 4.1.5

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

Strategy 4.1.6

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

Strategy 4.1.7

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

Policy 4.2 – Energy Supply

It is the policy of the State of Oregon to support efforts to move to a diversified and cleaner energy supply, promote fuel efficiencies and prepare for possible fuel shortages.

Strategy 4.2.1

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

Strategy 4.2.2

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

Strategy 4.2.3

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

Policy 4.3 – Creating Communities

It is the policy of the State of Oregon to increase access to goods and services and promote health by encouraging development of compact communities and neighborhoods that integrate residential, commercial and employment land uses to help make shorter trips, transit, walking and bicycling feasible. Integrate features that support the use of transportation choices.

Strategy 4.3.1

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

Strategy 4.3.2

Promote safe and convenient bicycling and walking networks in communities.

- Fill in missing gaps in sidewalk and bikeway networks, especially to important community destinations such as schools, shopping areas, parks, medical facilities and transit facilities.

- Enhance walking, bicycling and connections to public transit through appropriate community and main street design.

- Promote facility designs that encourage walking and biking.

Strategy 4.3.3

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

Strategy 4.3.4

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

Strategy 4.3.5

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

- Access to public transportation and the knowledge of how to use it.

- Facility designs that consider the needs of the mobility-challenged including seniors, people with disabilities, children and non-English speaking populations.

Strategy 4.3.6

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

Goal 5 – Safety and Security

Overview

Although the definitions of safety and security are closely related, safety within the context of transportation involves reducing the risk for transportation-related crashes or incidents. Security involves reducing the exposure to dangers including criminal and terrorist activity and natural disasters including earthquakes and floods. Both safety and security measures include planning, education, engineering, enforcement and emergency responses.

In spite of the increased number of miles traveled and the number of people traveling, the rate of fatalities and incidents involving almost all modes of transportation was lower in 2003 than a decade before. In Oregon, the rate of fatalities per 100 million vehicle miles traveled declined from 1.76 in 1992 to 1.46 in 2003. While the trend is encouraging, the numbers are still too high: In 2003, there were 512 fatalities and 28,256 injuries involving motor vehicles alone.

In the *2004 Transportation Safety Action Plan*, the Oregon Transportation Commission adopted performance measures calling for a reduction in transportation-related deaths from 16.7 per 100,000 population in 2003 to 9.75 (or 342 lives lost) per 100,000 population by 2010 and a further reduction to a rate of 9.00 (or 315 lives lost based on 2002 population figures) per 100,000 population by 2025.

Terrorist attacks since September 11, 2001 have demonstrated the vulnerability of the transportation system to incidents involving air, marine facilities, rail, public transportation and highways and the potential for large scale disruptions. In response, the federal Department of Homeland Security is guiding security efforts at transportation facilities throughout the country. State and local governments, port authorities and other transportation entities are addressing vulnerabilities and responses to terrorists as well as to criminal activities and natural disasters.

The Safety Policy calls for enhancement of a safety leadership group of governmental, public and private entities and development of a Strategic Transportation Safety Action Plan to address problems and target resources effectively. The Safety Strategies emphasize cooperation, coordination, communication and strategic actions in engineering, education, enforcement and emergency response.

The Security Policy recognizes that the federal government will be leading security responses and that the state will be responding to national guidelines, but it calls for increased planning and again improved communication, coordination and cooperation. States are encouraged to “deter, detect, defend and design” to help protect facilities. At ODOT, the *Emergency Operations Plan* and related plans address these issues.

Safety and security actions may occur as parts of infrastructure projects and facility development as well as stand-alone actions. The policies anticipate that new technology in vehicles, on commodities and cargo and in transportation infrastructure will contribute to safer and more secure conditions.

New technology will also assist in data integration and risk analysis. Since the strategies for safety and security issues are the same in a number of circumstances, both safety and security are referenced in the Safety strategies.

Goal 5 – Safety and Security

To plan, build, operate and maintain the transportation system so that it is safe and secure.

Policy 5.1 – Safety

It is the policy of the State of Oregon to continually improve the safety and security of all modes and transportation facilities for system users including operators, passengers, pedestrians, recipients of goods and services, and property owners.

Strategy 5.1.1

Enhance the safety leadership group to provide for cooperation among federal, state and local governments, private enterprises, and user and advocacy groups in order to address safety issues strategically and implement more effective safety programs.

Strategy 5.1.2

Develop a comprehensive Strategic Transportation Safety Action Plan addressing all modes of transportation based on risk analysis to reduce fatal, injury and property damage accidents among system users. This plan and other state transportation plans should include, but not be limited to, measures involving education, engineering, enforcement and emergency response that address:

- Key areas in driver behavior and impairment,
- Commercial driver performance and vehicle standards,
- Use of technology,
- Safety needs of vulnerable populations such as the young, aged, persons with disabilities and non-English speaking populations,

- Regular opportunity for information sharing across the modes, and
- Adequacy of trauma care statewide.

Strategy 5.1.3

Ensure that safety and security issues are addressed in planning, design, construction, operation and maintenance of new and existing transportation systems, facilities and assets.

Strategy 5.1.4

Support the further development and improvement of interoperable communication systems among safety and security-related agencies, jurisdictions and private entities. Ensure that clear communication protocols are established.

Strategy 5.1.5

Ensure that laws and regulations are appropriate to meet multimodal safety and security goals. Coordinate enforcement of transportation safety and security laws and regulations intended to reduce injury and property damage. Use enforcement strategically to address the identified problems of each mode.

Strategy 5.1.6

Ensure the development and delivery of coordinated and comprehensive safety and security awareness, education and training programs.

Strategy 5.1.7

Support the delivery of timely emergency medical services to transportation-related incidents and crashes in urban and rural areas. Improve the transportation system to facilitate delivery of necessary supplies and services for non-transportation emergencies. Support incident response units on major facilities where warranted.

Strategy 5.1.8

Support the safe and secure transport of hazardous materials in Oregon through driver education and screening, vehicle inspections, regulations and enforcement.

Strategy 5.1.9

Develop and implement a reliable, comprehensive and coordinated multimodal transportation data, crashes and incidents reporting program to manage and evaluate transportation safety with the goal of better data integration. The data should be timely, easy to use and accessible to all users to support analysis, effective response to safety problems and identification of projects.

Policy 5.2 – Security

It is the policy of the State of Oregon to provide transportation security consistent with the leadership of federal, state and local homeland security entities.

Strategy 5.2.1

Encourage the development of security plans for all modes of transportation encompassing prevention, detection and response. Security plans should provide for coordinated response across all entities and prioritize actions based on critical impact.

Strategy 5.2.2

Promote the development of cost-effective security measures for transportation facilities and infrastructure.

Strategy 5.2.3

Improve the evacuation and emergency response capabilities of the urban and rural transportation system.

Strategy 5.2.4

Address the potential impact of security measures on the management of transportation facilities in order to minimize delays in the movement of people, goods and services.

Goal 6 – Funding the Transportation System

Overview

The current structure and level of transportation funding in Oregon are inadequate to meet the needs of the individual publicly-funded modes of transportation and the system as a whole. Inadequate and uncertain funds threaten the state's ability to meet economic and livability objectives. Funding for public transportation, rail passenger services and maintenance dredging for ports depends on uncertain state and federal appropriations. Some sources of local funding such as the property tax and timber harvest fees are exhausted. Because of inflation, more efficient vehicles and the use of alternate fuels, the yield from motor vehicle fuel taxes is declining. Most funds have closely defined uses and cannot be used for other transportation priorities.

Goal 6, Funding the Transportation System, recognizes that the transportation system is funded to achieve state and local environmental, land use and economic goals, and that the financing structure should provide adequate funding and reinforce the relationship between beneficiaries and responsibility for funding. The Goal recognizes that whether or not funds are increased, it is essential to maximize existing resources, invest strategically, consider return on investment, and provide equity among rural and urban areas, equity among income groups and access to transportation options throughout Oregon.

Analysis of transportation needs and revenue reveals a $1.3 billion annual revenue gap (in 2004 dollars) between current transportation spending ($2.2 billion) and the average annual transportation spending needed to keep up with population and economic growth over the plan period. This gap is for the largely publicly-funded aspects of all modes of transportation. The analysis shows the consequences of funding the transportation system at each of three levels:

- Level 1: The current funding level leads to a decline in infrastructure conditions and loss in services because inflation causes a 40-50 percent loss in purchasing power by 2030.

- Level 2: A level that keeps up with inflation largely maintains current transportation conditions but is not able to make major capacity enhancements, resulting in increased congestion.

- Level 3: A level that substantially increases funding, addresses reasonable transportation needs for growth and economic activity, and lessens congestion.

Both Level 2 and Level 3 require additional revenue.[8]

The Plan recognizes that traditional funding mechanisms are an important part of transportation revenues and that new mechanisms are needed to stretch and increase funding, and be flexible, adequate and sustainable. Some initiatives are already underway. A statewide vehicle-mileage tax to replace the state motor vehicle fuel tax is being tested. Public/private partnerships for constructing major projects are being explored. Other techniques are being used nationally and

[8] Details of these analyses are in the Summary of Financial and Technical Analyses and Implementation sections of the Plan as well as in the Technical Appendices.

internationally including tolling and variable pricing of the highway system depending upon the time of day. Developing new funding sources will require strong citizen support, led by business and community leaders and based on a statewide commitment to a tangible vision and strategy.

Many of the needed transportation improvements will require cooperation among public and private transportation providers and investors and partnerships among multiple levels of government. For example, the state needs new ways to partner with the rail mainlines to achieve both freight and passenger rail objectives and new ways to act strategically to assist small commercial airports and ports. Creating public/private partnerships can help supplement and diversify transportation funding, but some critical needs will not have the option of utilizing such partnerships.

If Oregonians choose Level 1 and do not increase revenues to keep pace with inflation and increases to fleet economy, hard choices will have to be made about which public transportation, passenger rail, and air services and which highway, roadway, and airport conditions will be allowed to decline. Choices may involve examining the benefits of maintaining parts of the existing transportation system versus making strategic capacity improvements. Existing conditions cannot be maintained, and many new facilities in transportation system plans cannot be constructed. Policy 6.5 speaks to this issue.

Goal 6 – Funding the Transportation System

To create a transportation funding structure that will support a viable transportation system to achieve state and local goals today and in the future.

Policy 6.1 – Funding Structure

It is the policy of the State of Oregon to develop a transportation finance structure that addresses the public funding aspects of all modes and reinforces plan strategies. This structure should include provisions for flexibility in the use of new funding sources and new partnerships to achieve system integration while also protecting transportation funds for transportation purposes.

Strategy 6.1.1

Since the current funding structure does not keep up with inflation, increased fuel efficiency or infrastructure and service needs, develop new funding methods to support the transportation system and increase the diversity, stability, predictability and flexibility for funding facilities and services.

Strategy 6.1.2

Develop and maintain adequate resources for demonstrated and proven transportation needs for all transportation modes and jurisdictions.

Strategy 6.1.3

Develop a transportation finance system which consciously attempts to provide equity among competing users, payers, beneficiaries, transportation system providers and regions of the state.

Policy 6.2 – Achievement of State and Local Goals

It is the policy of the State of Oregon to plan and manage the transportation finance structure to contribute to the accomplishment of state and local environmental, land use and economic goals and objectives.

Strategy 6.2.1

Give priority to funding those transportation needs identified in state, regional and local transportation system plans.

Strategy 6.2.2

Make strategic investments that respond to capacity, safety, operational and maintenance issues for airports, bicycle and pedestrian facilities, highways and roadways, intermodal connections, public transportation, ports and waterways and rail.

Strategy 6.2.3

Give funding priority to programs and projects that use resources efficiently. Systematically examine the alternatives to major investments and consider the return on investment. Return on investment considers short and long-term benefits and includes not only direct benefits but also indirect benefits such as public safety, accessibility, mobility and the environment.

Strategy 6.2.4

In funding decisions, balance the interests of beneficiaries, economic benefits and environmental and land use goals.

Strategy 6.2.5

Fund projects through public/private partnerships that balance statewide environmental, land use and economic goals and state, regional and/or local plans.

Policy 6.3 – Public Acceptability and Understanding

It is the policy of the State of Oregon to use finance mechanisms that have broad public acceptance and are understandable to transportation system users.

Strategy 6.3.1

Provide on-going 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 investments are not sustained at an appropriate level.

Strategy 6.3.2

Make all aspects of publicly-funded transportation investment decision-making transparent to the public.

Policy 6.4 – Beneficiary Responsibilities

It is the policy of the State of Oregon to examine mechanisms to expand the beneficiary pay concept to reflect the costs and benefits of uses of the transportation system and reinforce the relationship between benefiting from transportation facilities and paying for their benefit, but to retain essential fairness including cost responsibility. This policy recognizes some modes will continue to need subsidies to achieve overall transportation system goals and provide essential services.

Strategy 6.4.1

Examine mechanisms to fund major capacity-adding and related transportation facilities that raise revenues including but not limited to tolling, congestion pricing and capturing increases in real estate value resulting from investments or potential investments. Funding mechanisms may include system development charges, tax increment financing and value pricing as well as traditional funding sources.

Strategy 6.4.2

Consider options for tolling including taking a systematic approach to tolling roads. This may include pursuing tolling existing facilities associated with specific facility improvements.

Strategy 6.4.3

Consult with city, county and other local and regional jurisdiction(s) regarding the potential for participation on capacity-enhancing projects. Participation shall consider the size and financial capabilities of the jurisdiction. Participation may include, but is not limited to, contributions to funding, in-kind services and materials, land use actions, transportation improvements and other enhancements.

Strategy 6.4.4

Negotiate with the private sector to leverage funds, right-of-way contributions or off-system improvements when (1) transportation improvements benefit specific properties planned for development or transportation networks, (2) changes are proposed or have occurred to the relevant comprehensive plan, or (3) development has occurred or will occur that necessitate major transportation improvements.

Strategy 6.4.5

Take advantage of public right-of-way ownership to lease space to produce revenue such as leasing for fiber optic cable.

Policy 6.5 – Triage in the Event of Insufficient Revenue

It is the policy of the State of Oregon to resolve revenue shortfalls by means that maximize public acceptance and that minimize undesirable long-term consequences to the overall transportation system in urban and rural areas.

Strategy 6.5.1

In the event of inadequate revenue to meet system needs, support Oregonians' most critical transportation needs, broadly considering return on investment and asset management.

Strategy 6.5.2

Make transportation investment decisions with an increased emphasis on improving the economic condition of the state.

Strategy 6.5.3

Increase the consideration of leveraged public and private funds and/or benefits when deciding where to make transportation investments.

Strategy 6.5.4

Before making funding decisions, re-evaluate the costs and benefits of projects, including those from transportation system plans.

Goal 7 – Coordination, Communication and Cooperation

Overview

The OTP Vision and Goals 1 through 6 provide a range of goals, policies and strategies to move Oregon toward a better-integrated transportation system. Critical to the delivery of an efficient transportation system is effective coordination, communication and cooperation, as well as effective planning and institutional relationships among public and private transportation providers of the services and those most affected by transportation activities. Goal 7, Coordination, Communication and Cooperation, addresses these issues.

System integration is necessary at many levels, and new partnerships are needed to share information, technology and facilities and provide services. Challenges to delivering an integrated system include barriers to sharing information between public and private sector providers, differences in maintenance and construction standards and practices, union contracting and liability concerns. Creative solutions are needed to remove the barriers and share risks to improve the delivery of transportation.

Institutional relationships can also impede the ability to efficiently address transportation challenges and seize opportunities across modes and jurisdictions. This is especially true in setting priorities for the whole transportation system and in taking advantage of the technological opportunities for improved management of the system.

Oregon can respond to the challenges. The state took advantage of a FHWA program that provides flexibility for private/public partnerships while assuring efficient delivery of transportation projects. Oregon developed legislation to remove barriers and provide tools for public/private partnerships for transportation projects. The state must continue to seek new opportunities to provide innovative solutions to long term problems that balance risk with reward.

Oregon has a history of planning coordination and public participation at all levels of decision-making. These are key aspects of Oregon's success in building viable communities and the transportation networks that serve them. Each governmental level is responsible for system elements:

- The state must provide leadership in the development of strategies to reinforce the goals of the OTP. ODOT must define and advocate for a safe transportation system of statewide significance that accommodates international, interstate and intercity movements of goods and passengers into and through urban and rural areas. When highway or transit projects have such a magnitude that they require leadership and consolidated authority to move them forward, the Oregon Transportation Commission or other appropriate entities may require singular authority for decision-making on such projects.

- MPOs are responsible for transportation planning for their areas under federal law. Both MPOs and local counties outside of MPOs must define and advocate for transportation systems of regional significance adequate to meet needs for the safe movement of people and goods between and through communities and to regional destinations.

- Local governments must define and advocate for systems adequate to meet needs for the safe movement of people and goods within their jurisdictions.

Federal transportation regulations and the statewide planning program shape coordination and public involvement. The framework for cooperating with Indian tribal governments, federal and state agencies, regional and local governments and major transportation providers was well-institutionalized through the federal Intermodal Surface Transportation Efficiency Act (ISTEA) and continued in the Safe, Accountable, Flexible, Efficient Transportation Equity Act — A Legacy for Users (SAFETEA-LU). Oregon has instituted Area Commissions on Transportation (ACTs), the Oregon Freight Advisory Committee, the Transportation Safety Committee and mode-specific advisory boards that provide opportunities for consultation on transportation issues with local government officials, community leaders, transportation providers, tribal governments and system users.

Federal regulations and state laws and policies call for early and continuing public involvement opportunities. Ongoing public involvement and participation from transportation providers and users are essential for understanding how transportation needs can most effectively be met. In some cases, special efforts are needed to involve traditionally underserved populations.

Communication, coordination and partnerships among federal and state agencies, tribal governments, local governments, transportation providers and the private sector can make more effective use of resources in developing, operating and maintaining the transportation system. The policies and strategies in Goal 7 reinforce the goals and policies in the rest of the Plan.

Goal 7 – Coordination, Communication and Cooperation

To pursue coordination, communication and cooperation among transportation users, providers and those most affected by transportation activities to align interests, remove barriers and bring innovative solutions so the transportation system functions as one system.

Policy 7.1 – A Coordinated Transportation System

It is the policy of the State of Oregon to work collaboratively with other jurisdictions and agencies with the objective of removing barriers so the transportation system can function as one system.

Strategy 7.1.1

Examine transportation functions among and within state and local agencies and providers in order to make the delivery of transportation services and facilities more efficient. Consider consolidation of functions where it can improve efficiency, accountability and service delivery.

Strategy 7.1.2

Promote decision-making at the level most appropriate to operate the transportation system. Plan for system improvements in a regional or inter-regional context, and involve local governments, Metropolitan Planning Organizations and neighboring states where appropriate. Develop procedures to enable the state or other appropriate entity to consolidate decision-making authority for projects of statewide or regional significance.

Strategy 7.1.3

Consult with federal and state agencies to achieve transportation goals. This may include linking state economic, energy, housing, human services, land use, natural resource and transportation policies and activities; collaborating on siting facilities like prisons and state office buildings; and working with federal and state natural resource agencies on environmental stewardship.

Strategy 7.1.4

Develop state multimodal, modal and topic plans that are consistent with the OTP investment strategies and applicable goals, policies and strategies. In the multimodal, modal and topic plans, further refine the OTP goals, policies and strategies appropriate to the modes/topics. The purpose of these plans is to achieve system integration across all modes for passenger and goods movements.

Strategy 7.1.5

Coordinate tribal, federal, state, regional and local planning to protect transportation facilities, corridors and sites for their identified functions and to facilitate community development. This includes adopting appropriate regulations.

Strategy 7.1.6

Share information and integrate databases as appropriate to the level of operation being carried out. Promote the transfer of transportation technologies and planning and management practices to state, regional and local governments and the private sector.

Strategy 7.1.7

Provide transportation planning assistance, including transportation finance and value capture information, especially to rural communities.

Policy 7.2 – Public/Private Partnerships

It is the policy of the State of Oregon to maintain, expand and provide tools to encourage partnerships to improve efficiency in the delivery of transportation facilities and services benefiting the state transportation system and the state's citizens. Partners include transportation providers, public agencies and private businesses at all levels across jurisdictions and ownerships.

Strategy 7.2.1

Identify and remove barriers in order to improve partnerships that promote a more efficient transportation system. Barriers may include legal, institutional or funding impediments between transportation providers, public agencies, private businesses, stakeholders and system users.

Strategy 7.2.2

Take advantage of opportunities to participate in innovative approaches to efficient delivery of transportation projects while managing risks, protecting the public interest and carrying out projects and programs consistent with state and regional plans.

Policy 7.3 – Public Involvement and Consultation

It is the policy of the State of Oregon to involve Oregonians to the fullest practical extent in transportation planning and implementation in order to deliver a transportation system that meets the diverse needs of the state.

Strategy 7.3.1

In all phases of decision-making, provide affected Oregonians early, open, continuous, and meaningful opportunity to influence decisions about proposed transportation activities. When preparing and adopting a multimodal transportation plan, modal/topic plan, facility plan or transportation improvement program, conduct and publicize a program for citizen, business, and tribal, local, state and federal government involvement. Clearly define the procedures by which these groups will be involved.

Strategy 7.3.2

Consult with federal and state agencies, Area Commissions on Transportation, Metropolitan Planning Organizations, affected non-metropolitan officials, tribal governments and other stakeholder groups in the development and implementation of the Oregon Transportation Plan.

Strategy 7.3.3

Seek out and facilitate the involvement of those potentially affected including traditionally underserved populations.

Strategy 7.3.4

Coordinate public outreach activities among local, regional and state agencies as appropriate.

Strategy 7.3.5

Provide on-going communication to federal and state agencies, local governments and the public regarding the goals, policies and implementation of the OTP. Provide public information and education about financing transportation and construction, operations and maintenance activities.

Policy 7.4 – Environmental Justice

It is the policy of the State of Oregon to provide all Oregonians, regardless of race, culture or income, equal access to transportation decision-making so all Oregonians may fairly share in benefits and burdens and enjoy the same degree of protection from disproportionate adverse impacts.

Strategy 7.4.1

Provide equal access to public information and decision-making about transportation planning, financing, construction, operations and maintenance activities.

SUMMARY OF FINANCIAL AND TECHNICAL ANALYSES

SUMMARY OF FINANCIAL AND TECHNICAL ANALYSES

Summary Description of Transportation Needs

Introduction

The gap between transportation needs and revenues is a barometer for how well Oregon is funding transportation programs. In 2004 dollars the transportation needs analysis found approximately a $1.3 billion per year gap in the funding needed to adequately maintain and expand the publicly funded transportation modes over the plan period. The analysis included the needs of the public and privately-owned components of the state, regional and local transportation systems from 2005 to 2030 for the following:

- Air freight and passenger services,
- Intermodal connectors,
- Local roads and bridges,
- Natural gas and petroleum pipelines,
- Ports and waterways,
- Public transportation,
- Rail freight and passenger services,
- State highways including state bicycle and pedestrian facilities, and
- Transportation options program.

The OTP used the needs analysis as a foundation for determining funding priorities and investment scenarios for transportation.

Legal Requirements

The Transportation Planning Rule (TPR) and the federal transportation planning statute require that a minimum 20-year needs analysis be conducted for long-range transportation plans. The federal statute identifies factors to consider in the planning process, but leaves the manner in which they are to be addressed to states and metropolitan areas. Oregon Administrative Rule (OAR) 660-012-0030, Determination of Transportation Needs, provides that "the transportation system plan shall identify transportation needs relevant to the planning area and the scale of the transportation network being planned including: (a) State, regional and local transportation needs." OAR 660-012-005 defines state transportation needs as "needs for movement of people and goods between and through regions of the state and between the state and other states."

Methodology

The identified transportation needs are based on a concept of feasible needs. While feasible needs vary for each mode or program, in general the term *feasible needs* refers to the funding that maintains the system at a slightly more optimal level than current levels, replaces infrastructure and equipment on a reasonable life-cycle, brings facilities up to standard or adds capacity in a reasonable way. The standards describe a slightly more than current level of maintenance based on a concept of reasonableness. In most cases, the data were drawn from existing agency or program plans including modal plans, capital improvement plans and master plans. With pipeline, railroad, port and waterway facilities, the feasible needs were narrowly defined because either the mode is privately owned and information is not available or the level of economic activity is low. The majority of the pipelines and railroads in Oregon are privately owned. The needs for only those ports with waterborne commerce were assessed.

The base year is 2004 for most of the collected data. If data were from earlier years, the dollar amount was adjusted to 2004 dollars in order to create a consistent dollar-year. Current expenditures, current revenue and forecast revenue were also collected and calculated in order to show the funding gaps over the plan period. The needs analysis represents a snapshot of needs identified in a specific year (2004). Changes in plans, programs, policies and technology may change funding needs and gaps.

Table 1 summarizes the forecasted mode growth, current expenditures, average annual feasible needs and the gap between the two for each mode.

Additional Information

A more detailed description of the OTP transportation needs analysis work and methodology is provided in Technical Appendix 2.

Table 1: Summary of 2005-2030 Modal Needs and Growth Forecasts (Average 2004 dollars in millions)

Mode	Forecasted Annual Growth Rate	Current Annual Expenditures	Annual Average Feasible Needs	Annual Gap
Air Freight and Passenger[9]	2.62% - freight tons 2.40% - passengers			
Portland International Airport[10]		$44.4	$115.3	$70.9
Major Modernization[11]		$13.9	$15.1	$1.2
Other Airports – Modernization and Preservation[12]		$10.7	$47.4	$36.7
Intermodal Connectors[13]	1.35% - total hwy travel	N/A	$11.3	N/A
Local Roads and Bridges[14]	Reflects state highway program and public transportation growth rates	$718	$1,000 - $1,200	$282 - $482
Natural Gas and Petroleum Pipelines[15]		N/A	N/A	N/A
Ports and Waterways[16]	0.97% - deep draft freight 0.29% - shallow draft freight	$51.3	$56.2	$4.9
Public Transportation[17]	3.16% - ridership	$510	$812	$302
Rail Freight and Passenger[18]	1.83% - freight tons 3.60% - passengers			
Private Rail Facilities		more than $6.7	$18.8	N/A
Passenger Rail[19]		$4.8	$9 - $57	$4.2 - $52.2
Safety Programs		$1.6		
State Highway-Related Programs[20]	1.35% - total hwy travel 1.35% - pass. hwy travel 1.40% - freight hwy travel	$786.5	$1,277.5	$490.9
Transportation Options Program		$2.8	$3.6	$0.8
Total	**N/A**	**$2.2 billion**	**$3.4 - 3.6 billion**	**$1.2 - 1.4 billion**

9 Needs forecast address capital needs at Oregon's 101 public-use airports.

10 Needs based on *Portland International Airport Master Plan* alternative.

11 Needs identified for eight airports other than Portland International Airport where growth is expected to exceed capacity.

12 Needs based on *2000 Oregon Aviation Plan* and individual airport master plans.

13 NHS Intermodal Connectors are located in Astoria, Boardman, Coos Bay/North Bend, Eugene, Medford and Portland.

14 The county funding gap may grow because of a drop in federal forest funding. This drop may be as high as $90 million a year for county roads as early as FY 2007-08. The Association of Oregon Counties' 2006 *County Road Needs Report* finds the counties' current annual expenditures at $377 million, with an additional average annual funding need of $433 million a year for the next five years, increasing annually over the 25-year timeframe.

15 Pipelines are primarily private facilities with no cost information available.

16 Needs forecast addresses 9 port districts that have economic activity associated with waterborne commerce.

17 Feasible needs are consistent with *Oregon Public Transportation Plan* Level 3 recommendation to increase ridership in accordance with service delivery plans.

18 Only public expenditures are available. Needs are inclusive of both public and private facilities. Freight rail needs include capital costs for rehabilitation and enhancements of short line, mainline and some on-site rail facilities at ports.

19 Number includes capital and operating costs for increased service. A range of costs is given since multiple proposals currently exist.

20 Includes state bicycle and pedestrian program. See Table 2 for additional information. Specific program expenditures and needs are available in Technical Appendix 2.

Table 2: Summary of 2005-2030 State Highway-Related Program Needs (Average 2004 dollars)

Program	Current Annual Funding	Average Annual Feasible Needs	Annual Gap
ODOT Administration and Program Development[21]	$163,700,000	$174,157,344	$10,457,344
ODOT Bicycle and Pedestrian Program	$3,456,600	$9,930,000	$6,473,400
ODOT Driver and Motor Vehicle Services	$60,882,490	$63,200,000	$2,317,510
ODOT Motor Carrier Transportation Division	$25,594,765	$26,441,689	$846,924
ODOT Safety Related Programs	$46,730,000	$74,510,000	$27,780,000
ODOT Special Programs	$15,717,900	$71,503,700	$56,585,800
State Highway Bridge Program	$71,000,000	$129,600,000	$58,600,000
State Highway Maintenance Program	$143,000,000	$192,192,000	$49,192,000
State Highway Modernization Program	$108,100,000	$330,300,000	$222,200,000
State Highway Operations Program	$30,350,432	$45,627,257	$15,276,825
State Highway Preservation Program	$118,000,000	$160,000,000	$42,000,000
Total	**$786,532,187**	**$1,277,461,990**	**$490,929,803**

Transportation Funding Sources and Issues

Introduction

Oregon has a user-based funding system that is supplemented by other sources of federal, state and local funding. Funding methods vary by mode and sometimes by size of transportation facility or service. Funding generally is dedicated to specific modes and purposes. This dedication protects the interests of the specific mode, but does not provide funding flexibility to address shifting needs or funding shortfalls. This section describes funding sources and issues by mode to provide a framework for the investment scenarios and key initiatives.

Airports

Oregon's commercial service and general aviation airports currently receive most of their capital and operating revenue in the form of user fees. Typically, Oregon airport improvements at all but the Portland International Airport are funded by 95 percent Federal Aviation Administration grants with a local 5 percent match. Portland International receives 83.33 percent federal funds with a 16.67 percent match. Federal excise taxes on tickets, cargo and aviation fuel fund the grants. While major airports are generally self-supporting, smaller commercial airports and general aviation airports are often dependent on grants and other support.

[21] Administration and Program Development needs will vary depending on shifts in agency priorities such as changes in federal requirements, number of capacity improvements, and emphasis on performance measurement and asset management. More detailed information on program funding and feasible needs is available in Technical Appendix 2

Bicycle and Pedestrian Facilities

Local governments manage local bicycle and pedestrian facilities using a combination of federal grants, state highway funds and local revenues. ODOT, cities and counties annually expend an amount equivalent to at least one percent of the state Highway Fund to provide walkways and bikeways. Any changes to the state motor fuel tax impacts the maintenance and construction of bicycle and pedestrian facilities statewide because the motor fuel tax is the primary funding source for both local and state systems.

Passenger and Freight Rail

While private firms own and operate rail short lines and mainlines for freight, Amtrak operates passenger rail services. The state supports two daily round trip rail passenger services from Eugene to Portland and connecting bus services with state general and lottery funds. Oregon has five programs for rail improvements based on revenue from a corporate income tax on private rail operators. The state also funds upgrades to the Union Pacific rail infrastructure to better support passenger rail services.

Ensuring that Oregon's rail system can efficiently move freight into and out of ports and into and out of the state is a state concern. However, the level of future investment in mainline railroads in Oregon depends on national rail company investment choices; short line rail operators lack sufficient revenue to make capital investments. Elimination of bottlenecks at river crossings and mountain tunnels may require more resources than private sector rail operators can currently afford on their own. While common in other states, public investments in privately owned systems have been limited in Oregon. The Oregon Legislature has funded passenger services and rail improvements, but the lack of a long-term funding source creates an obstacle to long-term investments and expansion of rail in Oregon.

Ports and Waterways

The majority of maritime port revenues are derived from user fees; ports also depend on funding from land sales and local revenue sources such as property taxes. Federal and state sources fund maintenance of waterways, and the state also funds port improvements and dredging projects through general revenues. For the Columbia River ports, financial stability over the plan period would mean that revenues will remain at historic levels with some slight increases, federal funds will be allocated to complete the Columbia River channel deepening, and the jetties at the mouth of the Columbia River will be rebuilt prior to failing. Competition is increasingly tight for the U.S. Corps of Engineers funding needed for channel deepening and jetties.

Public Transportation

Oregon's public transportation providers rely on a wide variety of funding sources. The proportions of funding from federal, state and local sources vary between capital and operating budgets. Operating revenues are derived mainly from local payroll taxes or property taxes and passenger fares while the federal government funds the majority of large capital improvement projects and a variety of small enhancement projects. Payroll taxes accounted for 53 percent of the operating budgets for the Portland and Eugene transit agencies during Fiscal Year 2003. State taxes and fees support transit services for rural areas as well as on-demand paratransit services for the elderly and persons with disabilities. State lottery revenue bonds have been used to fund light rail, commuter rail and other transit projects. Intercity bus services are operated by private carriers who invest in their own terminals and equipment and pay for operating expenses through fares and other user fees.

Since several of the major local revenue sources, such as payroll taxes, are closely tied to the economy, fluctuations in the economy affect system operations. By 2025, about 25 percent of Oregon's population will be 65 or older. This population, as well as Oregon's young and low-income residents, will continue to need transportation services that forecasted revenues do not support. Privately owned intercity bus service may need public support to continue to provide an essential service.

Roads and Highways

Oregon's state highways are primarily funded through user fees. Highway user fees in Oregon are constitutionally dedicated to the state Highway Fund and must be used for highways and roads. Fuel taxes and administrative fees currently generate approximately two-thirds of ODOT's overall transportation revenues. Motor fuel taxes are the largest source of user-derived revenue making up about 22 percent of ODOT's annual revenue; weight-mile taxes for heavy vehicles generate about 12 percent.

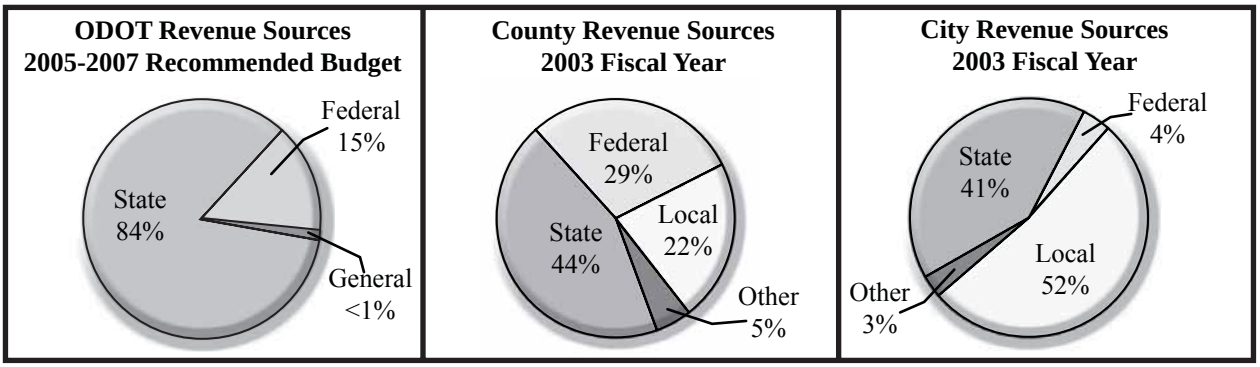
Federal, state and local user fees provide about 45 percent of the funding for county roads and 44 percent of total revenues for city street improvements in Oregon. Other sources of funding for local roads and streets include property taxes and other non-user taxes. The U.S. Forest Service and Bureau of Land Management receipts from logging have historically provided over 25 percent of funding for county roads in counties with timber resources; however, this funding source expires in 2006 unless reauthorized by Congress.

Oregon's funding for highways and roads will not meet the needs. Just over 60 percent of forecasted highway and road needs were met in 2004 (see Table 1, Summary of 2005-2030 Modal Needs and Growth Forecasts) even though the Oregon Legislature passed the Oregon Transportation

Investment Acts (OTIA) I, II and III to improve state and local roads and bridges. While the legislature has periodically increased the motor fuel tax, revenues have failed to keep pace with inflation and will experience a 40-50 percent decline in purchasing power over the plan period if the tax is not increased. This issue is compounded by increases in the average fuel efficiency of Oregon's motor vehicle fleet, further reducing the motor fuel tax revenues.

Figure 5: Transportation Revenue Sources

ODOT Total Revenue **County and City Road and Street Fund Revenues (2003)**



Additional Information

Technical Appendix 3 contains additional information on trends in funding transportation, future needs and limitations of the current system, potential transportation revenue sources and mechanisms, and financing mechanisms.

The Policy Analysis

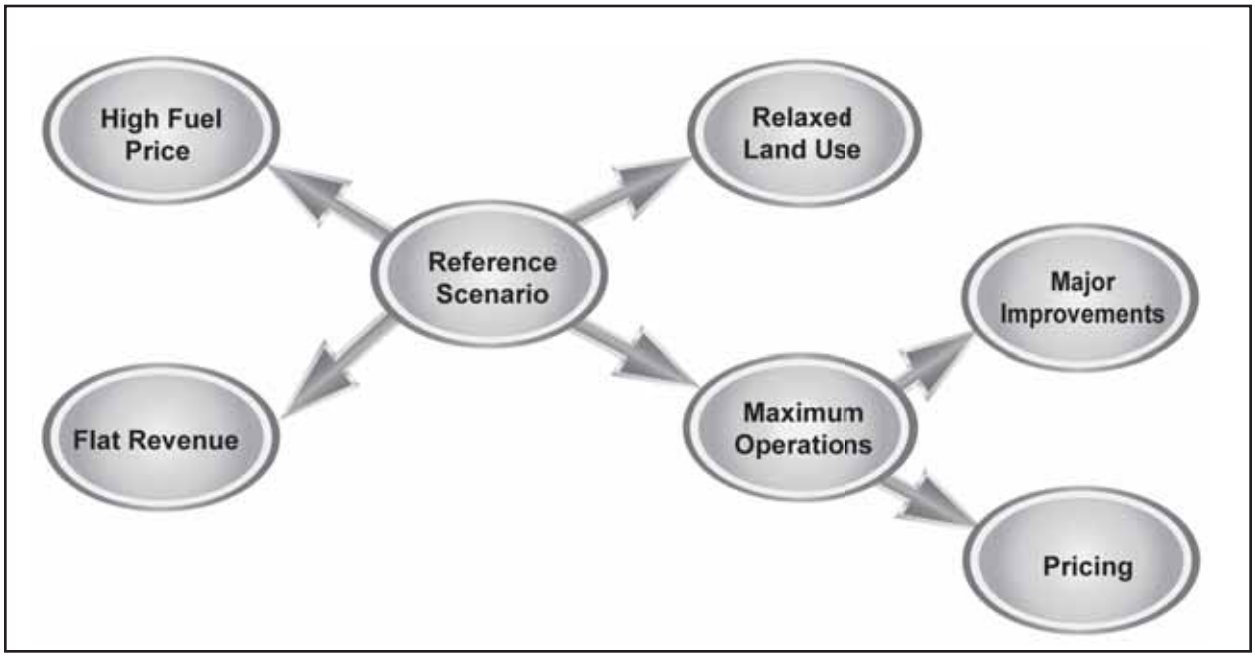
The Scenarios and Analysis

To analyze policy choices and the impacts of potential changes, the OTP Steering Committee examined seven scenarios. The scenarios fit into three categories:

- The reference scenario served as a basis to which all other scenarios were compared.
- The sensitivity scenarios examined the impacts of increasing fuel prices and relaxed land use policies.
- Four policy scenarios examined the impact of potential OTP policy decisions involving revenue levels, sources and priorities.

Figure 6 illustrates the relationships between scenarios. All the scenarios examined the potential impacts of policies or future conditions on Oregon's transportation system, economy and land use.

Figure 6: OTP Scenarios



Analysis tools included the ODOT statewide transportation, land use and economic model, findings from Metropolitan Planning Organization travel demand models, and other research and expertise. The statewide model is designed to compare and contrast state and regional impacts of different highway, roadway and transit investments and changes in policy. It does not provide information for evaluating specific projects addressing local capacity problems. Research and expertise outside the model were used to analyze scenario impacts on aviation, rail, and ports and waterways.

Description of the Scenarios

1. The **reference scenario** examined a proposed funding level that allows the state to maintain current purchasing power through 2030 by raising additional funding either from existing or new sources. This scenario assumed (1) the equivalent of an annual $0.01 per gallon fuel tax increase, beginning in 2006, dedicated to roadway operations, maintenance and preservation activities; (2) the equivalent of a $15.00 increase in the state vehicle license fee in 2010 and every eight years to 2030 for roadway modernization activities; and (3) $7.1 million in 2010 and $10 million per year thereafter dedicated to urban transit capital; this is money which is currently being used to pay back bonds for existing transit systems, with the bonds retiring in 2010.

2. The **high fuel price scenario** investigated the impact of major increases in fuel prices during the plan period.

3. The **relaxed land use scenario** investigated the impact of increased availability of land for development across the urban fringe and rural areas throughout Oregon in a general sense.

4. The **flat funding scenario** evaluated the impact of declining purchasing power due to inflation that would result if no additional funds were raised to support transportation.

5. The **maximum operations scenario** assumed operational improvements would be made instead of the capacity expansion assumed in the reference scenario. These improvements included highway operational investments made by ODOT and enhanced transit services made by local and regional agencies.

6. The **major improvements scenario** evaluated the impacts of projects that were beyond the scope of the reference scenario, including projects identified in existing Metropolitan Planning Organization plans and potential new lanes on I-5 and I-205 between Eugene and the Oregon/Washington border. This scenario assumed ODOT and other agencies could raise the funding necessary to meet many of the feasible needs for all transportation modes across the state.

7. The **roadway pricing scenario** examined the impacts of road pricing strategies in Oregon, primarily focused on the I-5 and I-205 corridor between Eugene and the Oregon/Washington border.

Major Findings from the Scenarios

The analysis used a specific set of performance measures based on the OTP vision, goals, policies and strategies to evaluate each scenario. The evaluation resulted in the following major findings:

1. **Reference Scenario.** Funding in the reference scenario keeps up with inflation so infrastructure maintains its existing condition. Since only a few capacity-enhancing projects can be funded annually, congestion and travel times increase across the state. With a major existing bottleneck in the Portland area and insufficient funding, rail freight travel times increase.

2. **High Fuel Price Scenario.** Increasing fuel prices dampen economic activity in Oregon. The faster fuel prices increase, the greater the burden on the state, national and international economies. A rapid fuel price increase could have significant impacts on choice of transportation mode for both passengers and freight. Higher costs for travel reduce the number of trips taken, which could result in faster travel times and reduced congestion. Higher fuel costs produce substantial negative impacts on air travel. The Portland region is less affected than other regions of the state due to its large size, more compact development pattern and ability to provide alternate forms of transportation.

3. **Relaxed Land Use Scenario.** At the aggregate statewide level, there appears to be a sufficient supply of land available for development in urban growth boundaries and their expected expansion. Increased availability of land for development across urban fringe and rural areas throughout Oregon has no significant effect on the Oregon economy as a whole. However, at the local level, infrastructure may not provide sufficient capacity to serve new development that follows a less compact pattern.

4. **Flat Funding Scenario.** Flat funding (funding that remains the same in terms of nominal dollars) reduces purchasing power by 40 to 50 percent by 2030 because of inflation. Vehicle fuel efficiencies further reduce funds generated by the state fuel tax. Without new funding, there would be steep declines in pavement and bridge conditions, roadway maintenance and other programs. Long-term costs for rehabilitation and replacement increase. Publicly funded new investments in rail and marine infrastructure that benefit the economy could not be made. Few investments to enhance transportation capacity could be made.

5. **Maximum Operations Scenario.** Gains from operational improvements are significant, especially when improvements are made to transit operations and frequency. In the Portland area in 2004, transit services saved 28 to 40 percent of delay while operational strategies saved 10 percent. With Portland-area freeway management already in place, the state is expanding operational investments in other parts of the state and to the arterial systems, especially in the Bend, Eugene/Springfield, Medford and Salem/Keizer metropolitan areas.

6. **Major Improvements Scenario.** It is difficult to impact mobility on the statewide highway system without substantial new investments in capacity. Travel times are reduced when major improvements are made. Capacity improvements to highways and freight rail in the Portland area and the Willamette Valley have a positive impact on the rest of the state because of better connections to commercial centers.

7. **Roadway Pricing Scenario.** Of all the scenarios, including the major improvements scenario, road pricing or tolling has the greatest ability to reduce travel times and congestion. Pricing tends to concentrate land use and economic activity into existing urban areas. In urban areas the size of Portland, tolled facilities might be able to pay for operating costs but probably not capital costs.

The results of the policy analysis informed the development of the implementation framework and key initiatives. A more detailed summary of the policy analysis is available in Technical Appendix 4.

IMPLEMENTATION

IMPLEMENTATION

Implementation Framework

Introduction

Oregonians must work together to develop and fund a transportation system that meets the challenges that we face during the coming decades. We want a sustainable transportation system that is safe and secure and supports our communities, our economy and our environment. The Plan lays out the framework for making the hard choices through the vision, goals, policies and strategies.

The investment scenarios in this section will show that additional funding is required to even maintain the roadways, public transportation and other transportation services that we have. If we want to compete in the global economy, we will have to establish new and increased funding sources to address bottlenecks on the system, to increase safety and security, and to enhance capacity and services. Over time, the current funding levels cannot effectively address the long traffic delays and the needs for transit services and freight facilities. The Plan recognizes that, regardless of funding levels, transportation providers and operators must make the system as efficient as possible and make investments strategically, considering return on investment.

Implementation of the Plan will build on the planning framework and partnerships that have already been established. Some strategies will require ODOT, local government and stakeholder commitment over the long-term. Others will require a widespread public understanding of the transportation issues facing the state and legislative action. Implementation will occur in phases as plans are updated and legislative changes are made. Over time, the Plan is positioned to respond as transportation challenges change and priorities shift.

In this section of the Plan, the Elements of Implementation describe the Plan's implementation process. Implementation through the planning process shows how state multimodal, modal/topic plans, regional and local transportation system plans and master plans will further refine the OTP's broad policies and investment levels. The Investment Scenarios lay out three investment levels, examples of the investment priorities for each level of investment and their impacts on the transportation system. Key Initiatives describe the Plan's implementation priorities.

Elements of Implementation

Plan implementation can build on the existing opportunities in Oregon's planning structure, planning organizations, partnerships and public involvement practices. It will be enhanced by the development of an Implementation Plan. Opportunities include the following:

- **Public involvement and consultation.** Oregon has a long history of effective public involvement in which citizens can discuss long-range issues and review priorities. Public involvement and consultation are particularly important since full implementation of the Plan hinges on public support for new funding to maintain, optimize and make strategic improvements to the transportation system. Goal 7 lays out the public involvement policy and strategies.

- **Legislative action**. Implementation of several OTP policies and strategies rely on legislative leadership. Enacting new funding methods, greater investment in the public aspects of transportation and removing institutional barriers will require state and federal legislative changes.

- **Oregon's statewide multimodal planning and management of funds.** ODOT's planning program and modal divisions and the Oregon Department of Aviation's planning program translate and refine the OTP policy and investment strategies into multimodal, modal and topic plans in order to implement the statewide multimodal priorities. The Departments' roles in managing federal funds provide the opportunity to support and influence spending on aviation, highways, public transportation, bicycling and walking and, to a lesser extent, rail.

  Agency plans also define or refine the role of the state. The plans inventory existing conditions, identify minimum and desired levels of service and estimate costs to achieve the desired level of service. Existing modal/topic plans for aviation, rail, highway, public transportation, safety and bicycle and pedestrian facilities are expected to be updated and a freight/goods movement plan developed to reflect OTP goals, policies, strategies and key initiatives.

- **Oregon's comprehensive land use planning structure.** Oregon's statewide planning structure promotes consistency between state, regional and local planning. The Transportation Planning Rule (TPR) requires regional and local transportation plans to be consistent with the long-range goals and requirements of the OTP, but allows regional and local plans latitude in how they meet the OTP goals. In turn, the State Agency Coordination Program (SAC) assures that ODOT complies with the statewide planning goals in a manner that is compatible with acknowledged city, county and regional comprehensive plans. Figure 7 shows the relationships among these plans. As part of the OTP implementation, guidance documents will be updated to assist local cities, counties and Metropolitan Planning Organizations (MPOs) in developing and modifying their transportation system plans (TSPs) for consistency with the OTP.

- **Cooperation between ODOT and MPOs, COGs, and ACTs**. Modes of transportation besides state highways and rail are predominantly managed at the local and regional level. Cooperative relationships between ODOT and MPOs and Councils of Government (COGs) enhance the opportunity to implement the Plan goals, policies, strategies and key initiatives in regional decision-making for all modes. Area Commissions on Transportation (ACTs) provide significant input into the selection of State Transportation Improvement Program (STIP) projects and can localize statewide planning priorities.

- **Federal, state and local coordination and partnerships.** The OTP advocates for increased planning coordination at the federal, state, regional and local levels and identifies specific actions that can build on existing relationships. For example, on a state level, Oregon has the opportunity to work with the federal government to pilot federally-developed programs that advance technology. As in the past, Oregon can work with neighboring states to lobby Congress for the maintenance of the mouth of the Columbia River jetty. At the regional level, cities that adjoin metropolitan areas can engage in early planning to advocate for needed regional transportation infrastructure and services.

- **Coordination among state agencies.** State agencies including the Departments of Agriculture, Economic and Community Development, Environmental Quality, Housing and Community Services, Land Conservation and Development, State Lands, and Transportation coordinate programs regularly. Field teams carry out state goals and policies and leverage funds at regional and local levels. This coordination can facilitate OTP implementation. Department of Human Services and Department of Energy programs also can implement the OTP. Coordination of transportation services between local providers and the Department

of Human Services can increase service and opportunities for funding. The Department of Energy is the lead agency on developing alternative fuels and a contingency plan for fuel shortages, carrying out Policy 4.2.

- **Public-private partnerships.** Innovative partnerships between public and private sector transportation providers can assist with transportation project financing and forward Oregon's interests in all modes of transportation. For example, financing for major highway expansions may require a public-private partnership. Bringing together experts in in-vehicle communication technology with hospital and insurance company administrators may improve incident response. Improving traffic flows and the interactions between modes requires better understanding of shipping issues and may involve consultations among air, rail, trucking and marine interests. Creating more transportation-friendly communities may involve discussions among housing authorities, developers and transportation agencies.

- **OTP Implementation Plan.** The Implementation Plan will outline affected programs and policies, define specific implementation actions and clarify roles and responsibilities.

- **Implementation through project selection**. Project selection for publicly-funded transportation is primarily based on the state and local facility plans. Agencies, local jurisdictions and MPOs develop capital improvement programs that reflect their facilities and are approved by their governing body. The Oregon Transportation Commission approves projects and makes other investments through the Statewide Transportation Improvement Program (STIP), the four-year improvement program for ODOT, based on recommendations from ACTs, MPOs, local governments and other stakeholders. A key element will be identifying strategic investments.

- **ODOT's role in multimodal connectivity**. ODOT's primary operational responsibility is the state highway system, but the Department is also responsible for funding certain bicycle/pedestrian, public transportation and rail facilities. These responsibilities provide opportunities for promoting connectivity of all modes including connectivity between local road systems, connectivity between modes and improved access to intermodal freight and passenger facilities.

Implementation Challenges

OTP implementation includes the following challenges that should be considered in the Implementation Plan:

- **Authority and responsibility.** Authority and responsibility are disbursed among various transportation modes. While the Oregon Transportation Commission has statutory responsibility for creating the OTP, it exercises no direct authority over many of the agencies on which plan implementation is dependent.

- **Timelines.** Short-term actions are needed to begin to implement the long-term Plan goals. Other efforts may take long time periods to achieve, requiring long-term commitments of time and resources to reach the consensus necessary for implementation.

- **Legislative budgetary authority and OTC planning responsibility**. While the Oregon Transportation Commission is responsible for creating the Plan, the state legislature provides the funding and budgetary authority necessary for major portions of its implementation. Some OTP policies and strategies also require legislative action to implement.

- **Revenue support.** Since elements of the transportation system have their own revenue sources, funding is decentralized and implementation of the Plan may be difficult. Significant competition exists for available transportation funds.

- **Financial stability.** While the Plan promotes developing a financial structure that provides a reliable level of funding to support transportation activities, the 2006 funding structure is not sensitive to inflation, increased fuel efficiency or the increased demands of the system.

OTP Implementation through Planning and Management

State and local plans, management systems and performance measures can further OTP implementation. State multimodal, modal/topic plans, and regional and local transportation system plans can further define the OTP's broad goals, policies, strategies and investment scenarios. The plans will require standards to be defined and operational strategies to be developed.

Management systems developed for pavement, bridges, congestion, public transportation, safety and other elements of the transportation system can help agencies manage assets and identify specific problems more efficiently. Data from management systems are used to assist in making investment decisions at ODOT and in some MPOs and local governments.

Performance measures can provide quantitative and qualitative evidence of system performance and serve as a way of reporting back to stakeholders and the general public on the results of implementing policy and investment choices. Performance measures may be developed in the modal/topic and transportation system plans that further refine the OTP.

Elements of planning and system management include:

- Statewide multimodal plans developed by ODOT and other state agencies including a freight/goods movement plan and a strategic transportation safety plan;
- Modal/topic plans developed by ODOT and other state agencies including plans for aviation, bicycle and pedestrian facilities, highways, marine ports and waterways, public transportation and rail;
- State transportation facility plans such as specific area plans, interchange area management plans and Expressway management plans;
- Regional and local transportation system plans developed through MPO or city and county processes;
- Plans developed by ports or special districts; and
- System management by ODOT, other state agencies, MPOs, cities and counties that may include management of roadway pavement, bridges, safety, operations, maintenance, congestion and public transportation.

Requirements for State Multimodal and Modal/Topic Plans

To implement the OTP, state multimodal, modal and topic plans are expected to include:

- Minimum of 20-year forecast for population and needs;

- Consistency with the OTP and its investment scenarios;
- Level of service in the form of standards, performance measures or goals as appropriate;
- Integration with other modal plans/modes;
- Policies and standards that refine OTP policies to apply to the mode as appropriate, with attention to:
    - Supporting economic vitality;
    - Increasing the accessibility and mobility options available for people and freight;
    - Preservation of the existing transportation system;
    - Integration with the transportation system as a whole including enhancement of connections within and between modes and to destinations within and outside the state;
    - Efficient management and operation of the system;
    - Environmental responsibility, sustainability, land use and compact development;
    - Consideration of energy supply assumptions;
    - Safety;
    - Security; and
    - Public/private and state/regional/local partnerships and relationships.
- Description of funding and prioritization of publicly-funded needs;
- Definition of the state's role;
- Statewide public review of the planning document in accordance with the State Agency Coordination Program and federal requirements; and
- Findings of consistency with the OTP, LCDC Statewide Goals and the Transportation Planning Rule as appropriate.

The Oregon Transportation Commission or the appropriate state policy-making body must adopt the plan before it can take effect.

Requirements for Facility Plans

The State Agency Coordination Program defines a facility plan as a plan for individual transportation facilities that includes identification of needs for using the facility, an overall plan for improving

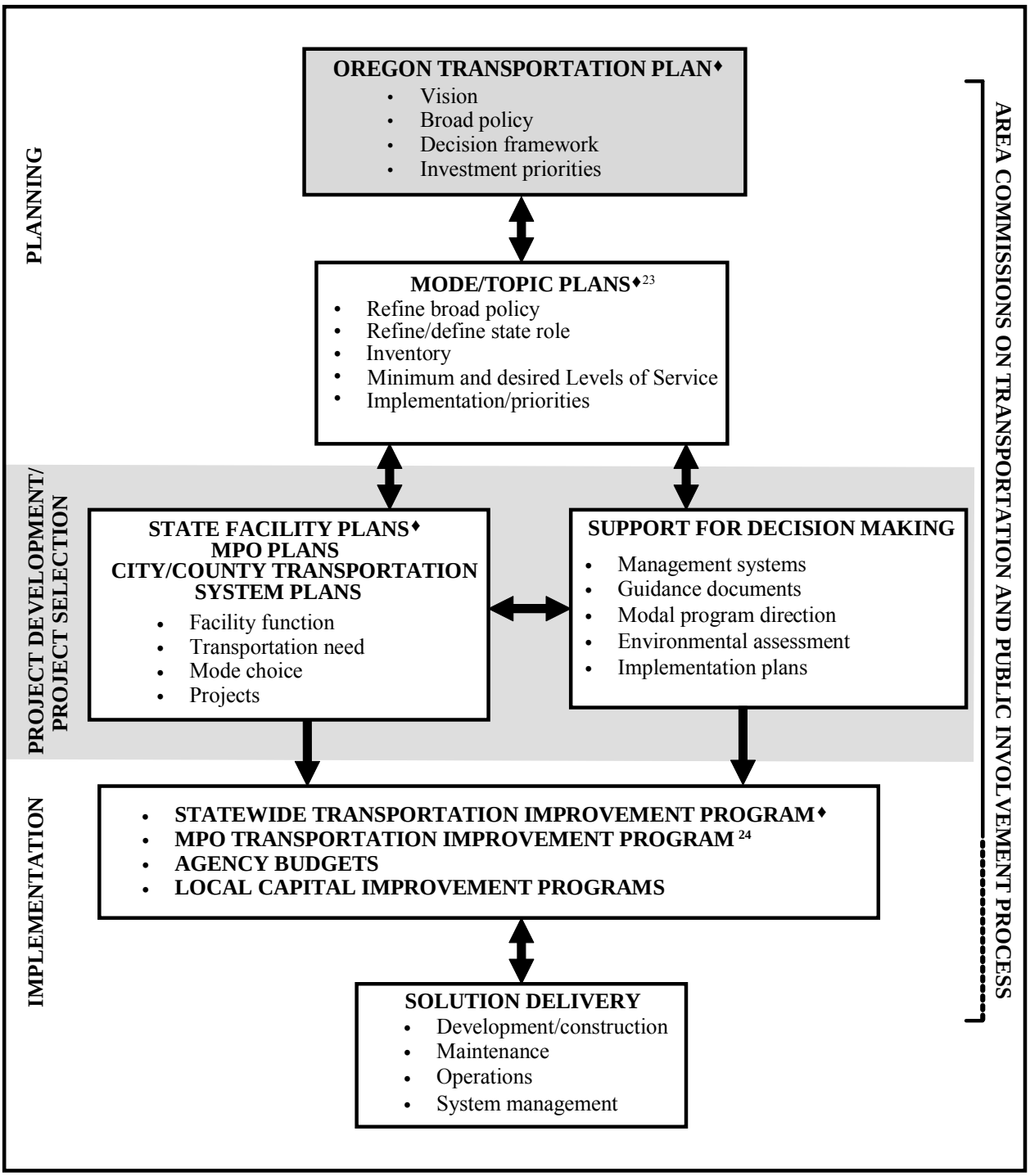
the system and policies for operating the facility. Facility plans include specific area refinement plans, interchange management plans, Expressway management plans and intersection plans. The OTC adopts facility plans for the state highway system.

ODOT facility plans are expected to implement the OTP and the applicable modal/topic plan goals, policies, implementation and broad investment scenarios. The development of a facility plan must provide opportunities for public review in accordance with the State Agency Coordination Program and federal requirements.

Requirements for Regional and Local Transportation System Plans

Requirements for regional and local transportation system plans (TSPs) are found in the Transportation Planning Rule (OAR 660-012). Regional and local TSPs must be consistent with the state TSP, that is, the OTP, state multimodal, modal/topic and transportation facility plans.

Figure 7: Integrated Transportation Planning [22]



♦ Oregon Transportation Commission action.

[22] Influenced by the Transportation Planning Rule.

[23] Aviation, Bicycle/Pedestrian, Freight, Highway, Public Transportation, Rail, Transportation Safety Action.

[24] MPO TIPs must be included in ODOT's STIP without modification. To ensure state priorities are considered, ODOT must be involved in the MPO planning project selection process.

Amendment Process

The OTP is intended to be a dynamic plan which is amended as conditions change and as government entities, the general public and the private sector explore new ideas for improving the transportation system. The Oregon Transportation Commission expects to update the OTP periodically and to modify the Plan as statewide, regional and local transportation plans are prepared and other transportation initiatives are developed. The Commission may also amend the modal/topic or multimodal plans to reflect policy modifications and other changes developed in the OTP.

Specific changes in multimodal or modal/topic plans will trigger potential amendment of the OTP:

- Changes in policy direction or policy language,
- Changes to investment strategies, and
- Changes to standards that result in changes to policy language.

Amendment of the OTP will include opportunities for involving state and federal agencies, Metropolitan Planning Organizations, local governments, the private sector and general public. The character and dimension of the involvement will depend on the scale of the proposed amendments. The ODOT State Agency Coordination Program describes the amendment process in detail.

Investment Framework

Investment Elements

To develop a sustainable transportation funding structure, ODOT, regional and local governments, stakeholders and the general public will have to consider the infrastructure and services that need development or support, the appropriate funding level and the funding sources that can reasonably be expected to meet these needs. The Investment Scenarios present examples of investment decisions at three levels of funding and the impacts of those decisions. The Scenarios recognize that funding may fluctuate but not increase with inflation or needs and that some transportation modes may be funded at higher levels than others.

Whatever the funding level, transportation funding discussions should be guided by the OTP goals, policies and strategies and the elements listed below:

- Underlying plan themes
    - Accessibility and mobility,
    - Economic development,

  - Equity,
  - Safety and
  - Sustainability

- Goal 6, Funding the Transportation System,
- Investment scenarios and
- Key initiatives.

Description of the Investment Scenarios

Three investment scenarios have been developed, each with a different funding level, to provide a framework for decision-making based on the amount of available funds. The Investment Scenarios use the analysis of transportation needs, the Plan goals, policies and strategies and the Policy Analysis. They are designed to have the maximum positive impact within the available resource level.

The Investment Scenarios mainly reflect the needs of publicly-supported transportation infrastructure and services. Much of the additional funding beyond Investment Level 1 would go to highway, road and transit programs because of their extensive size, high level of need and degree of public funding. Since the private sector is primarily responsible for funding rail freight and pipelines and complete information on private investment needs is not available, the Investment Scenarios include limited information on funding freight rail and do not include pipelines. They do not address the need for public support in areas where private resources are insufficient or the social benefit is not adequately reflected in private cost/benefit considerations such as intercity passenger service and rail freight.

- Investment Scenario Level 1, Response to Flat Funding, includes the adjustments necessary if there are no additional transportation funds available. It combines some elements of the Flat Funding and Maximum Operations scenarios in the Policy Analysis. This investment level emphasizes preservation and operational improvements to maximize system capacity. With no additional investments, even these improvements would have to be triaged. By 2030, inflation alone would reduce spending power by 40-50 percent.

- Investment Scenario Level 2, Maintaining and Improving Existing Infrastructure and Services, preserves existing facilities and services and keeps up with inflation. It combines some elements of the Reference and Maximum Operations scenarios in the Policy Analysis. This preservation strategy holds existing facilities and services at their current performance

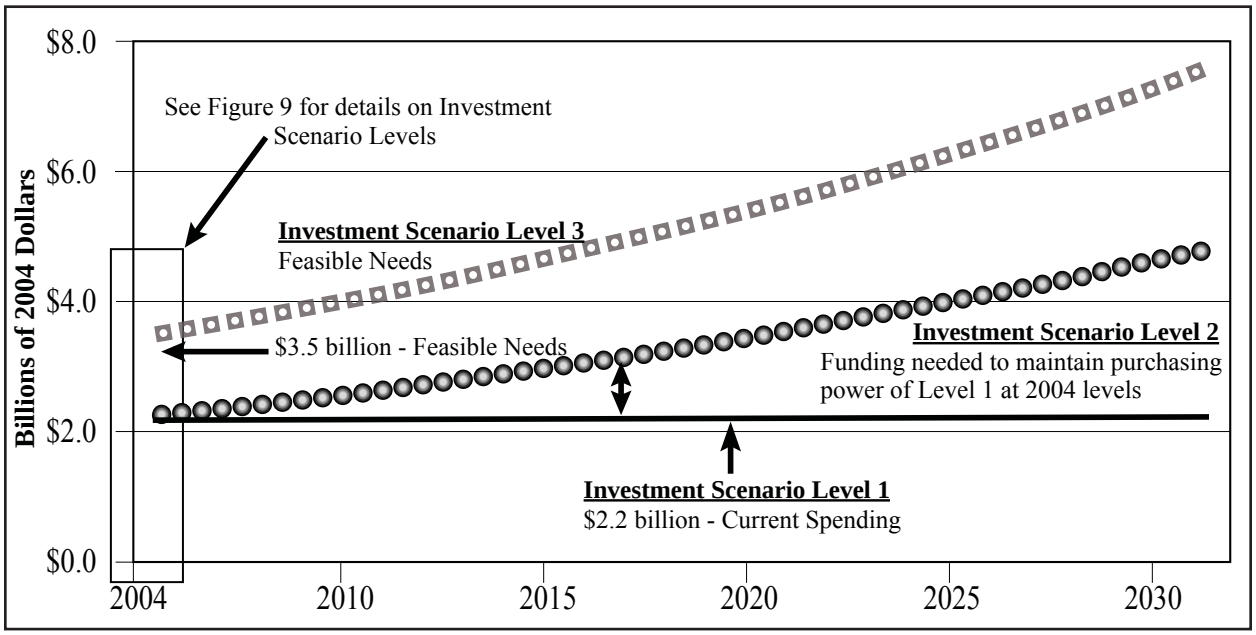
levels to the extent possible. It addresses some bottlenecks and puts additional funding into operations to preserve capacity, but it does not include major capacity-enhancing improvements.

Of the additional funding in Scenario Level 2, approximately half would be invested in highways, roads and streets to be raised from the equivalent of an annual $.01 increase in the State motor fuel tax for the Highway Fund and additional registration fees. Public transit represents another significant portion of the additional funds. An amount equivalent to state funds being used for existing transit systems would continue to be dedicated to urban transit capital, raising $7.1 million in 2010 and $10 million per year thereafter. Airports, ports and rail account for remaining portions of additional funds.

- Investment Scenario Level 3, Expanding Facilities and Services, includes major investments in new infrastructure. It represents feasible needs, that is, funding that maintains the system at a slightly more optimal level than current levels, replaces infrastructure and equipment on a reasonable life-cycle, brings facilities up to standard or adds capacity in a reasonable way. It does not bring all infrastructure up to standard or meet all needs for capacity and/or services. Some of the investments in Scenario Level 3 would be financed from traditional sources while others would be funded in part through mechanisms such as value capture, including tolls. Scenario Level 3 combines some elements of the Major Projects, Pricing and Maximum Operations scenarios in the Policy Analysis. Level 3 represents the funding level over the next 25 years required to keep pace with travel growth and to increase transportation system capacity to meet feasible needs.

The primary difference between Investment Levels 1 and 2 is the inability of Level 1 to prevent deterioration of the state and local road system and the inability of transit to keep pace with population growth. Known needs in intercity passenger services, rail freight and waterways go unmet. Level 2, Maintaining and Improving Existing Infrastructure and Services, goes a long way toward preventing deterioration of transportation system, but does not add major capacity. Level 3, Expanding Facilities and Services, addresses both system maintenance and capacity needs. Figures 8 and 9 depict the investment levels. Additional detail on each Investment Scenario Level is available in Technical Appendix 5.

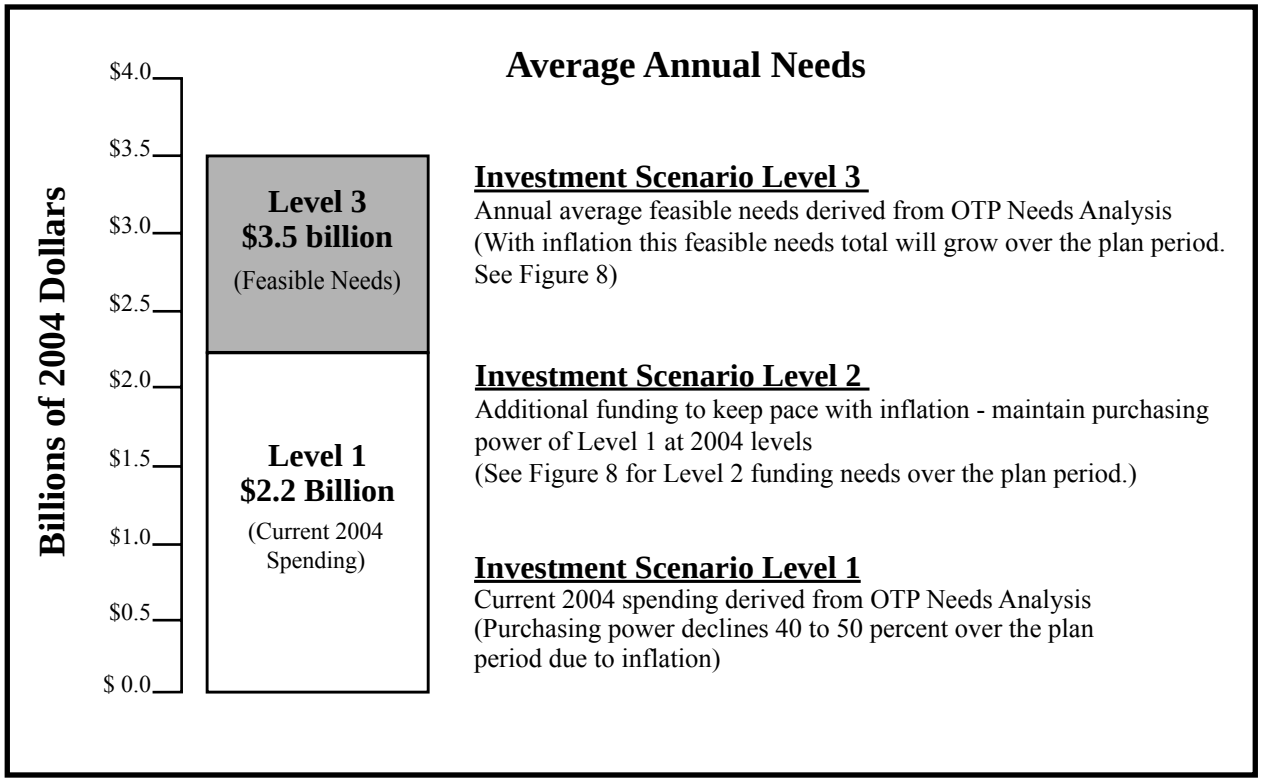
Figure 8: Inflationary Pressures on Current Expenditures and Feasible Needs (2004 Dollars)



Additional funding necessary to maintain the purchasing power of current expenditures (OTP Investment Scenario Level 2) increases over the plan period. Needed funding is more modest during the early part of the plan period, but the amount becomes more significant each passing year, making maintaining current system conditions at today's expenditure levels more difficult (OTP Investment Scenario Level 1).

The OTP analysis assumes a 3.1 percent inflation rate through the year 2030. It is difficult to accurately forecast inflation over a long time period making the actual cost of Investment Scenario Level 2 variable. Other factors such as increasing fuel efficiencies of the vehicle fleet and changing behaviors that reduce driving may also have a significant effect on future revenues and the additional funding necessary to keep pace with today's level of investment to preserve current system conditions. The dollar costs of the feasible needs, derived from the OTP needs analysis, also grow with inflation. An assessment of the gap between current spending and feasible needs is shown in Figure 9 and in Table 1.

Figure 9: OTP Investment Scenarios (2004 Dollars)



Basic Investment Assumptions

The three investment scenarios use the same assumptions in most ways:

- Preserve the existing system before investing in new capacity.
- Invest in Intelligent Transportation Systems and other operational improvements to get the maximum capacity from existing facilities.
- Support local transit to improve mobility and accessibility, serve vulnerable populations and provide an alternative to congested roads.
- Find ways to support the rail freight system to relieve congestion in rail yards and other bottlenecks and to keep short line service available to shippers not on mainlines.
- Support general aviation and preservation of air passenger services.
- Invest in waterways to keep efficient shipping services on the Columbia River and find ways to improve land-side access to marine port facilities.

Impacts of the Investment Levels

Although the investment scenarios are based on the same assumptions, each of the three scenarios produces very different impacts and consequences. The criteria used to evaluate the impacts and consequences include mobility and accessibility, congestion, system management, economic vitality, job retention, user costs, vitality of downtowns, sustainability, impacts on vulnerable populations, air quality conformity, and transportation safety and security.

Investment Scenario Level 1, Response to Flat Funding

Investment Scenario Level 1 includes the adjustments necessary if there are no additional transportation funds available. Transportation costs held at 2004 spending would total $2.2 billion per year in 2004 dollars. Tables 1 and 2 in the Summary of Financial and Technical Analyses section detail the allocations by mode and show that approximately $1.5 billion would be invested in highways, roads and streets and approximately $510 million in public transportation with the balance allocated for airports, ports and rail. Over the next 25 years, inflation alone will reduce spending power by 40-50 percent.

The strategy for this investment level emphasizes system preservation and operational improvements to maximize system capacity with a triage approach. Even though maintaining the system would be the highest priority for state highways, maintenance and preservation standards would have to be redefined and projects prioritized. Capacity additions would be at minimum mandated levels. Maintaining the condition of the existing local roads, bridges and aviation runways would become the priority at the local level. While public transit funds are focused on service to the elderly and persons with disabilities, those services and general transit services would decline and system expansion curtailed after 2010. The Cascades passenger train service would be cut over time from three to one round trip per day. The rail grade-crossing program assistance would continue while assistance to short lines declines. No channel modernization would occur beyond the existing commitment to deepening the Lower Columbia River channel. The net result could be devastating to the state's economy.

Impacts include the following:

- The ability to get to places by all forms of transportation would decline because of declining infrastructure conditions and services and lack of funding for projects that relieve congestion.

- Deterioration of the state and local road and bridge system could not be avoided and increases user costs. If bridges deteriorate again to the point of load limits, then commerce would be interrupted.

- Traffic congestion would hurt the economy because of longer travel times, need for duplicate inventories at more locations, need for additional delivery fleet and drivers, and reduced market areas.

- Transit service to new job centers and population centers might not be adequate. Transit fares and wait times would increase.

- The most vulnerable populations, such as the elderly, persons with disabilities and those with low incomes, would lose transportation services.

- Reduction of intercity bus, rail freight, aviation and ports all would leave rural communities at an economic disadvantage.

- The inability to maintain desirable service levels for road surfaces, signage and traffic operations would reduce the safety of the road system and hurt emergency response.

- Air quality conformity would decline with declines in transit and increased congestion.

- Job retention and creation would be hurt by lack of modern highway and transit facilities.

- Local governments might be forced to assess all costs of new local roads against industry and housing.

- Failure of the jetties at the mouth of the Columbia could leave Columbia River ports, including the Port of Portland, without access to ocean shipping. This would be devastating both to industries dependent on ocean shipping and to Oregon's transportation and warehousing industry.

Investment Scenario Level 2, Maintaining and Improving Existing Infrastructure and Services

Investment Scenario Level 2 preserves existing facilities and services and keeps up with inflation. This preservation strategy holds existing facilities and services at their current performance levels to the extent possible. It addresses some bottlenecks and puts additional funding into operations to preserve capacity, but it does not include major capacity-enhancing improvements. It avoids economic disaster but does not create a competitive advantage for Oregon businesses.

Impacts include the following:

- Roadway and bridge conditions would be maintained and operational improvements made, so safety is improved and user costs are reduced compared to Level 1.

- Public transit would keep pace with population growth and complete new bus rapid transit and planned light rail construction.

- Special transit services to the elderly and persons with disabilities would be preserved.

- Intercity rail service is limited but would offer an alternative to highway travel.

- Rail freight shipping costs would be reduced by elimination of some bottlenecks. Preservation of rail services would assist job retention in rural areas and outside the Willamette Valley.

- Funding would prevent further cutbacks of short line rail service and maintain rural air service, maintaining rural access to freight and passenger services.

- Ports would have the opportunity to deepen channels, protect jetties and address highway and rail congestion around marine terminals. But the economy would not grow to full potential because congestion at truck, rail and port facilities would prevent expansion and efficient handling of growing amounts of cargo.

- Air quality would be somewhat improved by better highway operations.

- Security improvements would be possible with better operational infrastructure.

- Some congestion would be addressed through improvements to bottlenecks and through more aggressive implementation of operational improvements such as Intelligent Transportation Systems (ITS).

- Major capacity needs for roads and highways would still go unaddressed. Road users would still experience rising costs due to increased travel delay because of congestion. Freight accessibility would be lessened by lack of capacity-adding projects. The inability of local areas to expand arterial roads would hurt their development opportunities.

Investment Scenario Level 3, Expanding Facilities and Services

Investment Scenario Level 3 allows all the modes to take care of their feasible needs including major investments in new infrastructure (see Tables 1 and 2 for costs by mode and type of investment) over the next 25 years at a cost of an additional approximately $1.3 billion annually over current expenditures (in 2004 dollars).

With its focus on expansion of infrastructure and services, Level 3 has very positive impacts on the economy:

- Statewide mobility would be enhanced by improvements throughout the system. Development of expanded road, transit, intercity passenger service, rail freight and airports would occur throughout the state.

- Public transit and rail improvements would make greater contributions to congestion relief.

- Better transit services would increase the economic vitality of downtowns and other employment areas.

- Rural areas would be better able to retain air and rail services and related jobs.

- Rural areas would be better connected via public transportation to communities with full services, ensuring better quality of life, retention of population and improved economies.

- Adequate maintenance of local streets and roads would improve access for pedestrians, bicyclists and persons with disabilities.

- Improved rail freight, marine port facilities and airports would enhance the economy in urban and rural areas.

- Highway congestion would not be eliminated, but it would no longer be a threat to the economy.

- Highway users would pay for some capacity improvements through tolls. Added cost would be partially offset by savings in travel time and costs.

Recommendations for Investing

Investing in the transportation system at Levels 1 and 2 is inadequate to meet Oregonians' needs for livability and economic vitality: Level 1 does not maintain even current infrastructure conditions and services, and funds are not available for capacity enhancements. Level 2 does not provide enough funds to add to capacity to relieve the major points of congestion that impede movements of people and goods. It does not provide enough capacity improvements to keep up with the needs of rapidly growing parts of the state, overloading two-lane highways and roadways.

Oregon needs to invest at levels closer to Level 3 in order to be competitive economically and to have the transportation infrastructure and services that allow communities to function well.

Oregonians have been reluctant to increase fees and taxes for transportation infrastructure. The Oregon Legislature has not approved an increase to the state motor fuel tax since 1991, which went into effect in 1993. The 1992 Oregon Transportation Plan recommended an increased level of funding for the preferred transportation system. In 1993 a coalition of interested parties took the comprehensive funding recommendations from the Plan to the Legislature where the combined funding package was not approved. Funding for highways, roads and bridges did not significantly increase until the Oregon Transportation Investment Acts of 2001, 2002 and 2003 increased various fees. ConnectOregon, adopted by the 2005 Legislature, to fund improvements to non-highway modes including air, public transit, rail and marine, relies on lottery income.

Because there is a gap between the funding needed to add capacity in critical areas and the public's willingness to pay, the Plan recommends that Oregon move toward funding transportation at Scenario Level 3, using incremental steps over time. The size of each step will depend on funding sources and the strategic investments to be made. Both traditional and new revenue sources should be part of creating the sustainable funding plan that is envisioned in the key initiatives.

Key Initiatives

The key initiatives developed by the OTP Steering Committee reflect the directions of the Plan including system optimization, integration of transportation modes, integration of transportation, land use, the environment and the economy, and the need to make strategic investments using a sustainable funding structure. The purpose of the key initiatives is to frame plan implementation, along with updating the modal/topic plans, not to override the direction of the goals and policies. As conditions change, the Transportation Commission may adopt or pursue new initiatives.

A. Maintain the existing transportation system to maximize the value of the assets. If funds are not available to maintain the system, develop a triage method for investing available funds.

- **Preserve the existing highway and roadway system to serve multiple modes**. As the state's top priority for highway investments, preserve access to the state highway system and intermodal freight and passenger facilities (ports, airports and rail terminals). As funding allows, invest in preservation, operations and capacity enhancements after considering the return on investment. In the event of a financial shortfall, the state should work with local governments to establish clear criteria for highway and road investment priorities.

- **Preserve an integrated arterial road system** that provides an effective option to the use of freeways in both rural and urban areas and serves businesses and industries.

- **Preserve transit services.** Concentrate statewide investments in public transportation on preservation of intercity, general service and special needs transportation services throughout the state.

- **Preserve rail capacity and services.** Preserve the existing rail infrastructure where freight services are economically viable. Preserve passenger rail services within the Willamette Valley and from California to Washington.

- **Preserve regional air service**. Involving the Departments of Aviation, Transportation, and Community and Economic Development, work with the aviation industry to preserve the availability of regional air services statewide.

- **Preserve access to Oregon ports.** Work with the Northwest Congressional delegations, federal agencies and the Army Corps of Engineers to assure funding is available for needed dredging and for maintenance and repair of jetties that protect shipping lanes and harbors. The state, local governments and the railroads should work to maintain and improve access to marine facilities. Oregon should support improved funding for cargo-handling capacity.

B. Optimize system capacity and safety through information technology and other methods.

- **Make Oregon's highways, streets, roads and transit systems efficient and seamless for travelers and shippers through the use of new technology.** Aggressively lead in developing a state of the art vehicle infrastructure interactive highway system that makes Oregon's highways the safest, most efficient and most seamless with regard to transit, truck and passenger vehicle access.

- **Remove bottlenecks in the system where feasible.**

- **Enhance incident response including emergency response to maintain safety and system capacity.**

- **Improve safety through emergency response, education, enforcement and infrastructure improvements to reduce crashes and transportation-related fatalities.**

C. Integrate transportation, land use, economic development and the environment.

- **Encourage and support land use plans and policies to enhance overall transportation system efficiency and transportation choices, including planning for compact and mixed-use development in appropriate locations.**

- **Expand the use of and consistently apply context sensitive and sustainable solutions in transportation facility planning and design.**

- **Coordinate tribal, federal, state, local and regional planning to protect transportation facilities, corridors and sites for their identified functions and to facilitate community and economic development.** With ODOT leadership, develop simulation tools to assist communities in evaluating transportation and land use proposals.

- **Join the energy debate as an advocate for Oregon transportation to assure a reliable, diverse and adequate fuel supply.** Develop a contingency plan for dealing with fuel shortages.

D. Integrate the transportation system across jurisdictions, ownerships and modes.

- **Manage the transportation system efficiently across transportation modes and jurisdictions.** Work with transportation providers, including federal and state agencies, cities, counties, transit districts and the private sector, to create a strategic plan to more efficiently and effectively manage and develop the transportation system. With public support, consolidate and streamline transportation system management where appropriate.

- **Develop a coordinated system for maximizing federal funding for transportation improvements across jurisdictions and modes.** Involve interests across modes, regional and local governments, business and community leaders and the Northwest Congressional delegations in developing the coordinated system and resolve competing interests before making requests.

E. Create a sustainable funding plan for Oregon transportation.

- **The Oregon Transportation Commission should engage the public to create a sustainable funding plan for transportation that includes clear choices on investment levels and addresses all modes and all parts of the state.** Elements of this plan should include:

    - Addressing the 2008 funding shortfall and shortfalls in years beyond;
    - Finding funding sources that keep pace with inflation and demand to guarantee continued maintenance and preservation activities as well as projects to enhance capacity;
    - Developing alternatives to fuel taxes;
    - Funding capacity-enhancing projects in all modes; and
    - Developing public support.

F. Invest strategically in capacity enhancements. Use the following considerations in making strategic investments:

- Ensure that strategic investments balance maintenance and preservation needs with critical capacity enhancements and operations.
- Recognize that safety may be a strategic investment.
- Address key bottlenecks where feasible. This encompasses driver behavior and places where constricted movements are creating delay for passenger or goods movements including interchanges, tunnels, bridges, rail yards, transit malls and other hubs where existing capacity is overwhelmed by transportation movements.
- Support investments where congestion obstructs or impedes movements on key segments of the system.
- Balance intermodal investment considering return on investment and advancement of modal choice.
- Enhance intermodal areas which foster the integration of service delivery or provide for more efficient service delivery.
- Assist in the promotion of job development and retention in areas such as industrial/employment centers.
- Support the optimal use of technology to resolve issues or improve the effectiveness or integration of transportation elements.
- Make investments that further the long-term functioning of the system as a whole.
- Promote appropriate allocation and coordination of jurisdictional responsibility.
- Support regional and local land use plans.

Additional work on refining criteria for strategic investments should occur in the multimodal and modal/topic plans that implement the OTP as well as during Statewide Transportation Improvement Program development and funding allocations. These refinements will vary by mode and change over time as the transportation system faces new issues. The challenge in refining criteria will be to develop a framework that allows decision-makers to make choices across modes in a transparent way.

Steps Following Plan Adoption

Some actions to implement the Plan can start soon after the Plan is adopted. These include the following:

- Develop an Implementation Plan to guide the OTP's implementation using the key initiatives to provide a framework.
- Refine OTP goals, policies and strategies through update and development of multimodal, modal and topic plans consistent with the OTP.
- Continue discussions to update Oregon's transportation finance structure with stakeholders and the public.
- Develop performance measures and analytical tools for plan implementation.
- Issue a State of the System report biennially that highlights major trends, system condition, targets, achievements and funding status.

APPENDIX A

GLOSSARY

APPENDIX A
Glossary

Accessibility: The ability to reach desired destinations with relative ease, within a reasonable time, at a reasonable cost and with reasonable choices.

Asset management: A systematic process of maintaining, upgrading and operating physical assets cost-effectively. It combines engineering principles with sound business practices and economic theory, and it provides tools to facilitate a more organized, logical approach to decision-making. Asset management provides a framework for handling both short- and long-range planning.

Compact development: Community development patterns with a mix of land uses and a supporting transportation system that make transportation convenient. The use and character of compact development varies depending on community size and circumstances.

Context Sensitive Design (CSD): A decision-making process that seeks flexibility in the application of design standards in order to incorporate or respond to surrounding natural or built site conditions without compromising safety.

Context Sensitive Solutions (CSS): A collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist.

Context Sensitive and Sustainable Solutions (CS^3): The concept of merging the principles of context sensitive design, context sensitive solutions and sustainability to create a framework for decision-making and problem-solving throughout the lifecycle of a project.

Cost Responsibility: The principle that those who use the public roads should pay for them and, more specifically, that users should pay in proportion to the road costs for which they are responsible. Cost responsibility requires each category of highway users to contribute to highway revenues in proportion to the costs they impose on the highway system.

Environmental Management System (EMS): A continual cycle of planning, implementing, reviewing and improving the processes and actions that an organization undertakes to meet its business and environmental goals. Most EMSs are built on the “Plan, Do, Check, Act” model. EMS implementation ensures that procedures are in place for taking remedial action if problems occur.

Facility plan: State, regional or local plan for an individual transportation facility such as a state airport master plan, corridor plan, transportation system plan that applies to specific areas or facilities, or refinement plan. Examples of specific area plans include interchange management plans and highway segment management plans.

Green street, roadway, highway or parking lot: A street, roadway, highway or parking lot designed to:

- Integrate a system of stormwater management.
- Reduce the amount of water that is piped directly to streams and rivers.
- Be a visible component of a system of "green infrastructure" that is incorporated into the aesthetics of the community.
- Make the best use of vegetation for stormwater interception as well as temperature mitigation and air quality improvement.
- Ensure the roadway has the least impact on its surroundings, particularly at locations where it crosses a stream, wildlife corridor or other sensitive area.

Incentives in Strategy 2.1.6: Examples of incentives for locating high traffic generators and mixed use development near public transportation include, but are not limited to, the following:

- Property tax relief,
- Changes to mobility standards,
- Transit passes,
- Development credits,
- Location efficient mortgages, and
- Employer support for home mortgage finances.

Intermodal facilities: Facilities that allow passenger and/or freight connections between modes of transportation. Examples include airports, rail stations, marine terminals and truck-rail facilities.

Location efficient incentives: Incentives for businesses or residents to locate where there is public transit. One type of incentive is a Location Efficient Mortgage which allows lenders to increase the amount of mortgage for a potential purchaser based on the lower transportation costs of a home located near public transit services.

Metropolitan Planning Organization (MPO): A planning body in an urbanized area of over 50,000 population which has responsibility for developing transportation plans for the area. In

2005, MPOs in Oregon were located in the Bend, Corvallis, Eugene-Springfield, Medford, Portland and Salem-Keizer areas.

Mobility: The ability to move people and goods to destinations quickly.

Mode or topic plan: A plan that implements the broad policies of the Oregon Transportation Plan for specific modes, such as public transportation and rail, or topics such as safety, passenger or freight movement over a 20-year period.

Modes: Types of transportation including air, bicycle, marine, motor vehicle including truck, pedestrian, pipeline, public transit and rail.

Multimodal: The movement of goods or people by more than one transportation mode.

Open access: Facilities or terminals open to major competitors in the mode, for example, facilities with access to both rail mainlines or a bus terminal open to two or more bus operators.

Pricing: Strategies that vary the price of a toll by time of day or level of use in a way to manage congestion or use of the facility.

Public-private partnership: An arrangement where both public and private entities participate and benefit from a common venture. Typically, the term refers to financial investments or private contributions made in lieu of fees.

Regional transportation plan (RTP): The official multimodal transportation plan that is developed and adopted through the metropolitan transportation planning process for the metropolitan planning area.

Speed management: Speed management is a comprehensive program to improve safety by explicitly linking planning, design and operation of the road to intended operating speeds. The program includes public information, speed enforcement, crash analysis, speed monitoring, and the design and management of the transportation network. While speed reduction may be an element of the program, it is not its intended focus. The intent is to define desired speeds on various elements of the network and ensure that those desired speeds are achieved through a combination of methods but primarily through users' self-selecting speeds based on information provided through the design and, secondarily, through the operation of the roads.

State Transportation Improvement Program (STIP): The funding and scheduling document for major road, highway and transit projects in Oregon listing projects for a four-year period.

Sustainability: Using, developing and protecting resources in a manner that enables people to meet current needs and provides that future generations can meet future needs, from the joint perspective of environmental, economic and community objectives.

Tolling: Any imposition of a fee for the use of a facility.

Transportation demand management or transportation options: General terms for strategies designed to optimize system performance through techniques such as the use of alternative modes, ridesharing, car sharing and vanpool programs, telecommuting and providing flexible work schedules. Managing demand is about providing all travelers with choices of location, route and time, not just mode of travel.

Transportation disadvantaged: Those individuals who have difficulty in obtaining transportation because of their age, income, physical or mental disability.

Transportation Management Area (TMA): Federally designated urbanized areas with a population over 200,000 or an additional area where TMA designation is requested by the Governor and the MPO. In 2005, the Eugene-Springfield, Portland metro, and Salem-Keizer areas were TMAs.

Transportation system: Various transportation modes or facilities (aviation, bicycle and pedestrian, highway, roadway, street, pipeline, public transportation, rail, water transport) serving as a single unit or system.

Transportation system plan (TSP): A plan for one or more transportation facilities that is planned, developed, operated and maintained in a coordinated manner to supply continuity of movement between modes, and between geographic and jurisdictional areas.

Value capture: Cases where the public is able to capture some of the increased value resulting from public investment. The most basic methods of funding capital facility costs involve development impact fees, assessment districts and special taxes.

Value engineering: A systematic review process that analyzes a project's design and develops recommendations to improve the design and/or reduce its overall cost.

APPENDIX B

OREGON TRANSPORTATION PLAN COMMITTEE MEMBERS

APPENDIX B
Oregon Transportation Plan Committee Members

Special thanks to the following committee members for their contributions to the OTP. We also wish to thank the many citizens of Oregon including numerous policy board members and their staff who provided valuable comments and assistance on the OTP.

Steering Committee

Chair: Gail Achterman, *Member, Oregon Transportation Commission*

Rex Burkholder, *Metro Councilor*

Mike Burrill, *Burrill Real Estate, State Aviation Board and Oregon Freight Advisory Committee*

Pat Egan, *Governor's Chief of Staff, Governor's Office*

Matthew Garrett/Lorna Youngs/Bruce Warner, *Director, Oregon Department of Transportation*

Mary Jane Guyer, *Former Mayor, City of Haines*

Onno Husing, *Director, Oregon Coastal Zone Management Association*

Ellen Lowe, *Oregon Food Bank*

Jim Lundy, *Professor, Oregon State University*

Mike Marsh, *Deputy Director, Central Services, Oregon Department of Transportation*

Mike McArthur, *Executive Director, Association of Oregon Counties*

John Porter, *President/CEO, American Automobile Association Oregon/Idaho*

Tom Schwetz, *Transportation Program Manager, Lane Council of Governments*

Duncan Wyse, *President, Oregon Business Council*

Tom Zelenka, *Environmental and Public Relations Manager, The Schnitzer Group; and Oregon Freight Advisory Committee*

Mobility and Economic Vitality Policy Committee

Chair: Gregg Dal Ponte, *Administrator, Motor Carrier Transportation Division, Oregon Department of Transportation*

Ken Armstrong, *Director, Oregon Public Ports Association; Oregon Short Line Railroad Association; and Oregon Freight Advisory Committee*

Mike Burton, *Oregon Economic and Community Development Department and Oregon Freight Advisory Committee*

Scott Cantonwine, *CEO, Cascade Warehouse Co., Inc.; and Oregon Passenger Rail Advisory Committee*

Bob Cortright, *Transportation Planning Coordinator, Department of Land Conservation and Development*

David Cox, *Division Administrator, Federal Highway Administration*

Elliot Eki, *Public Affairs Director, American Automobile Association*

Jeff Hamm, *General Manager, Salem Area Mass Transit District; and Public Transit Advisory Committee*

Dave Kavanaugh, *Transportation Economist, Oregon Department of Transportation*

Jeff Kohnstamm, *Oregon Tourism Commission*

Mike Montero, *Montero and Associates, Rogue Valley Area Commission on Transportation and Oregon Freight Advisory Committee*

Carrie Novick, *Manager, Redmond Airport; and Oregon State Aviation Board*

Bob Russell, *President, Oregon Trucking Association; and Oregon Freight Advisory Committee*

Sal Sahme, *Business and Economic Development Department Director, Confederated Tribes of Warm Springs*

Jim Torrey, *Former Mayor, City of Eugene*

Susan Walsh-Enloe, *Sales Representative, Burlington Northern Sante Fe Railway Company*

Dennis Williams, *Transportation Consultant*

Rob Zako, *Transportation Advocate, 1000 Friends of Oregon*

Safety and Security Policy Committee

Chair: Lorna Youngs, *Administrator, Driver and Motor Vehicle Services Division, Oregon Department of Transportation*

Rob Burchfield, *Traffic Engineer, City of Portland*

Larry Campbell, *Chairman of the Board, Victory Group*

Steve Dickey, *Director, South Metro Area Rapid Transit*

Mike Eyer, *Hazardous Materials Specialist, Rail Division, Oregon Department of Transportation*

Ed Fischer, *State Traffic Engineer, Oregon Department of Transportation*

Nick Fortey, *Traffic/Safety Engineer, Federal Highway Administration; and Oregon Freight Advisory Committee*

Rose Gentry, *Statewide Emergency Operations Manager, Oregon Department of Transportation*

Ruth Harshfield, *Executive Director, Alliance for Community Traffic Safety*

Tom Long, *Superintendent, Salem Airport*

Joe Marek, *Traffic Engineering Supervisor, Clackamas County*

Steve Rudy, *Oregon Trucking Association Safety Management Council*

Gregg Shankle, *Detective, Office of Public Safety and Security, Oregon State Police*

Dr. John Wish, *Citizen*

Sustainability and Transportation Choices Policy Committee

Chair: Troy Costales, *Administrator, Transportation Safety Division, Oregon Department of Transportation*

Linda Bainbridge, *Nike and Westside Transportation Alliance*

Bill Blosser, *Oregon Sustainability Board*

Jon Chandler, *Chief Executive Officer, Oregon Homebuilders Association*

Olivia Clark, *Executive Director of Government Affairs, TriMet; and Public Transit Advisory Committee*

Chris Hagerbaumer, *Program Director, Oregon Environmental Council*

Shirley Kalkhovan, *Nehalem City Council and Northwest Area Commission on Transportation*

Tom Kloster, *Transportation Planning Manager, Metro*

Bob Lowry, *Oregon Passenger Rail Advisory Committee and Association of Oregon Rail and Transit Advocates*

Steve McClure, *Union County Commissioner and Northeast Area Commission on Transportation*

Dave Newman, *Manager of Global Sustainable Logistics, Nike*

David Raphael, *Principal, Community Mobility Solutions; and Community Transportation Association of America Board*

Karen Swirsky, *Senior Associate Planner, David Evans and Associates; and former Chair, Oregon Bicycle and Pedestrian Advisory Committee*

Doug Tindall, *Deputy Director, Highway Division, Oregon Department of Transportation*

APPENDIX C

PLAN PROCESS

APPENDIX C
Plan Process

The Oregon Transportation Plan (OTP) reflects the work of the many groups and individuals who participated throughout the plan development process. In 2001, the beginning of the planning process, OTP staff conducted interviews with over 90 Oregon Department of Transportation (ODOT) staff and stakeholders to determine how the 1992 OTP was working, identify areas for improvement, and identify issues and challenges to address in the new Plan. The stakeholders included representatives of other state agencies, Metropolitan Planning Organizations (MPOs), city and county governments, and business and environmental groups. Their ideas and issues were the impetus for development of background papers and policies during the planning process.

The background papers focused on key transportation topic areas and trends affecting Oregon's current and future transportation system, including papers on transportation and the economy, transportation and the aging population, freight issues, energy supply, sustainability, safety and security. These papers were the subject of OTP committee discussions and were available to the general public via the OTP website.

A kick-off meeting in February 2004 introduced OTP committee members to the planning process and transportation challenges and issues. The over 60 committee members represented federal, state, regional and local governments, tribal governments, transportation providers, and business, environmental and safety advocacy groups. See Appendix B for a complete list of OTP committee members.

Three OTP policy committees drafted policies in particular focus areas and forwarded their recommendations to an OTP Steering Committee. The Mobility and Economic Vitality Policy Committee developed policies to increase the efficient intercity, interstate and international movement of people and goods and support economic vitality. The Safety and Security Policy Committee crafted policies to increase transportation safety and security. The Sustainability and Transportation Choices Policy Committee focused on supporting livable communities and developing a sustainable transportation system. Each policy committee met separately about five times and jointly with the Steering Committee three times over a 26-month period.

The OTP Steering Committee oversaw plan development and provided overall plan direction. The committee defined a plan vision, revised policies, guided analysis processes, and recommended investment strategies and key initiatives. The committee met monthly for about 20 months. Gail Achterman, an Oregon Transportation Commissioner, chaired the Steering Committee.

To support Steering Committee discussions, the OTP staff and a consultant team made a statewide assessment of transportation needs and conducted an analysis of potential transportation futures, referred to as the OTP policy analysis. The needs analysis involved consultation with the Oregon Department of Aviation, representatives of cities and counties, the Oregon Ports Association and Port of Portland and others. Summaries of both the needs analysis and the policy analysis are in the Summary of Financial and Technical Analyses section of the Plan. More detailed summaries are in the OTP Technical Appendices.

During the Plan's policy development, the OTP staff made presentations to ODOT Region staff, MPOs, and Area Commissions on Transportation (ACTs) to get their feedback. Formal public review began when the Oregon Transportation Commission (OTC) released the Draft OTP for review on November 17, 2005 with comments due by March 1, 2006. ODOT staff distributed press releases announcing the public review period and scheduled outreach meetings to newspapers around the state, including a major Spanish newspaper. Staff mailed a newsletter summarizing the OTP to over 1100 people, organizations and jurisdictions including ACTs and MPOs; other groups and individuals received the newsletter through email distribution. In addition to the external outreach, the newsletter was emailed to over 300 ODOT staff.

The OTP Executive Summary and an outreach brochure provided a quick and convenient review of the Draft Plan. The Executive Summary was distributed at public meetings and through the planning and transportation departments at Oregon's public universities. The brochures, in English and Spanish, were sent to public and academic libraries and Driver and Motor Vehicle (DMV) field offices across Oregon.

The OTP website played a key role in communications throughout the planning process. The site contained the Draft OTP and Executive Summary, background material, outreach and committee meeting information contact information and the OTP survey. Over the fifteen-week public review period, the OTP Home Page received nearly 6500 visits.

During the public review period, ODOT staff and Steering Committee members made presentations at 58 meetings across Oregon involving approximately 900 stakeholders and 200 ODOT staff members. Attendees included ACT members, MPO committees, stakeholder groups and advisory committees, ODOT Region staff, other government agencies and organizations. The ACT members included local government officials, tribal government representatives, citizens and businesses. A state-sponsored Government to Government Cluster meeting involved Oregon tribal governments and interested citizens. The majority of outreach presentations occurred at public meetings where local notice was sent. After the public review period ended, staff continued to make presentations and consulted further with natural resource agencies. In addition to feedback at the meetings, staff received more than 70 letters and emails commenting on the OTP during the initial review period.

To test OTP policies and directions with the general public, consultants conducted a telephone survey of 1500 Oregonians, 300 from each ODOT Region, in January 2006. About 230 people responded to a similar survey via the OTP website or at the public meetings.

OTP staff updated the Plan in response to the comments received during the public review period. The OTP policy committees and the Steering Committee reviewed the recommended changes and made additional modifications. The OTC made revisions and released the updated Plan for a final public review on June 29, 2006. Public notice of the review period and comment dates was widely distributed to interested parties across Oregon through news releases, postcards and the OTP website. Written comments were accepted during the 45-day review period. The OTC heard additional comments at a public hearing during its regularly scheduled meeting on July 19, 2006. Based on feedback from the OTC, OTP staff made final revisions to the Plan. The Transportation Commission adopted the Plan on September 20, 2006.