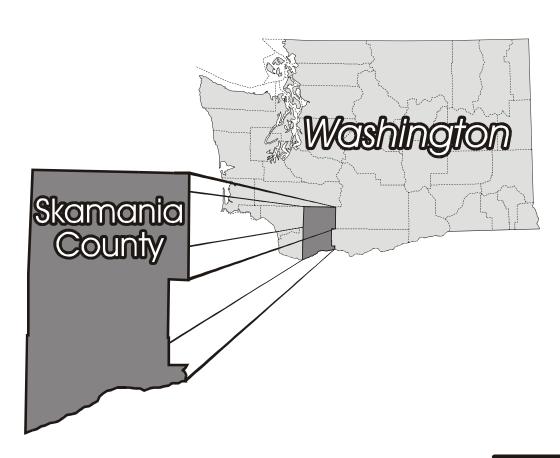
# Skamania County Regional Transportation Plan

May 2003





# SKAMANIA COUNTY REGIONAL TRANSPORTATION PLAN

May 2003

Prepared by:

Southwest Washington Regional Transportation Council PO Box 1366 Vancouver, WA 98666-1366 (360) 397-6067

# **TABLE OF CONTENTS**

<u>Chapter</u>		Page
	Title Page	i
	Table of Contents	
	List of Figures and Tables	
	Skamania County Transportation Policy Committee	
1	INTRODUCTION	1
	Vision	1
	Purpose	
	Goals	
	Transportation Strategy	2
	Guidelines and Principles	
	Scope	3
	Transportation Issues Addressed in RTP	
	Statutory Requirements	
	Intergovernmental Coordination	
	Skamania County Regional Transportation Plan: Work Plan	7
2	LAND USE, GROWTH, AND TRANSPORTATION	9
	Land Use and Transportation	9
	Growth and Development	10
	General Land Use in Skamania County	11
	Planned Land Use	
	2025 Population and Employment Forecast	12
	Demographic Trends	13
3	IDENTIFICATION OF REGIONAL TRANSPORTATION NEEDS	17
	Current Functional Classification of the Regional Roadway System	17
	Designation of the RTP Regional Transportation System	18
	Growth in Traffic Volumes	21
	Future Travel Demand	21
	Levels of Service	22
	Level of Service Standards	22
	Capacity Analysis	23
	Safety Analysis	23
	Preservation and Maintenance Need	
	Enhancement Need	25
	Economic Development Need	26

4	FINANCIAL PLAN	27
	Overview	27
	Accomplishments Since Last RTP	27
	Revenue Sources	27
	Revenue Allocation	32
	Projected Transportation Revenues	33
5	SYSTEM IMPROVEMENT AND STRATEGY PLAN	35
	Overview	35
	Maintenance	
	Preservation	35
	Improvements	36
	Miscellaneous Strategies and Solutions	
	Conclusion	
6	PERFORMANCE MONITORING	39
	Overview	39
	Safety	
	Capacity Analysis	
	Preservation and Maintenance	
	Special Studies	39
7	PLAN DEVELOPMENT AND IMPLEMENTATION	41
	Public Involvement in Regional Transportation Planning Process	41
	RTP Implementation	
	RTP Update Process	
A	APPENDIX	43
		44
	Glossary Experiencel Class Man	
	Functional Class Map	45

# **List of Figures and Tables**

Figure/Table		<u>Page</u>
Figure 1-1	Skamania County Vicinity Map	3
Figure 1-2	RTC Agency Structure	
Figure 1-3	RTP Development Process	
Figure 2-1	Land Use/Transportation Cycle	9
Figure 2-2	Growth in Skamania County: 1983 to 2000	11
Figure 2-3	Population, Housing, & Employment, 1980 to Forecast 2025	13
Table 2-1	Endflow Place of Work – Skamania County	14
Table 2-2	Skamania County Population, Housing, and Vehicle Registration	14
Figure 2-4	Registered Vehicles and Population Skamania County 1980-2000	15
Table 2-3	Skamania County, Journey to Work	15
Table 3-1	Skamania County Railroad Crossings	20
Table 3-2	Traffic Volumes	21
Table 3-3	Deficient Capacity Segments	23
Table 3-4	Rockfall Hazard Locations	24
Table 3-5	Deficient Safety Segments	25
Table 4-1	TIP Projected Revenue	33
Table 5-1	Skamania County Transportation Improvements	38
Figure 5-1	Revenue Shortfall	
Appendix	Functional Class Map	45

# **Skamania County Transportation Policy Committee**

# Policy/Mission Statement

The Committee supports the improvement of safety and efficiency of the regional transportation system in Skamania County.

The Committee supports transportation planning and project development that addresses the improvement of public safety along the regional transportation system.

The Committee supports the identification of "corridor segments" throughout the Skamania County region, which should be the focus of transportation improvement, enhancement, multimodal, and mobility funding.

The Committee supports the coordination between agencies in identifying and addressing, when practical, the needs of a multimodal transportation system.

# Skamania County Member Jurisdictions

Skamania County City of North Bonneville City of Stevenson Port of Skamania County

Washington State Department of Transportation

# Skamania County Transportation Policy Committee Members

Bob Talent Skamania County Commissioner
Mary Ann Duncan-Cole City of Stevenson, Administrator
John Kirk City of North Bonneville Mayor

Anita Gahimer Port Manager of Port of Skamania County

Don Wagner Washington State Department of Transportation,

SW Region Administrator

Staff and Other Participants:

Chuck Ruhsenberger WSDOT, SW Region Faye Jenkins-Edwards WSDOT, SW Region

Brent Holman Skamania County, Public Works
Darlene Dickson Skamania County Senior Services
Amy Nyberg Skamania County Chamber

Dean Lookingbill Regional Transportation Council
Dale Robins Regional Transportation Council

#### CHAPTER ONE

INTRODUCTION: RTP Vision, Purpose, and Goals

The Regional Transportation Plan (RTP) for Skamania County is the region's principal transportation planning document. The Regional Transportation Plan is developed to meet the magnitude of transportation issues facing the Skamania County region and the need for cooperation between jurisdictions in order to develop regional solutions. The first RTP for Skamania County was adopted in April 1995. An RTP update was adopted in April 1998. This 2003 update to the Skamania County RTP will use 2025 as the horizon year and incorporate the latest available data. The RTP is intended to be a plan to meet the transportation needs over the next 20 years by implementing a regional transportation planning process. This introductory chapter presents the vision, purpose, goals, scope, statutory requirements, and decision-making process involved in development of the RTP for Skamania County.

#### **Vision**

The RTP is a collective effort to address the development of a safe regional transportation system that will support planned economic growth and maintain the region's rural quality of life.

# **Purpose**

The RTP identifies future regional transportation system needs and outlines transportation plans and improvements necessary to maintain adequate mobility within and throughout the Skamania County region. The region must plan for a future regional transportation system that adequately serves the population, employment, and visitor growth projected for Skamania County. The RTP's goals, objectives, and policies will guide the various jurisdictions and agencies involved in planning and programming of transportation projects throughout Skamania County.

#### Goals

The following goals were used to guide the development of the Skamania County Regional Transportation Plan:

- Maintain, preserve, and improve the infrastructure of the existing transportation system.
- Provide a safe and secure transportation system that allows for the movement of people and freight.
- Provide a transportation system that fosters economic development.
- Provide for the development of a transportation system that efficiently uses financial resources.
- Provide an integrated and coordinated transportation system that includes a variety of mobility options.
- Provide a transportation system that is sensitive to the quality of the environment and natural resources.
- Provide for viable and livable local communities.

There is consistency between the general RTP goals outlined above and the policies established by local jurisdictions and agencies as part of their local comprehensive planning process. The Regional Transportation Plan (RTP) for Skamania County will consider the following goals established in the *Management Plan for the Columbia River Gorge National Scenic Area, SR-14 Corridor Management Plan*, and consider other long range plans.

#### Management Plan for the Columbia River National Scenic Area

- Provide transportation facilities that meet the needs of the traveling public and implement this plan's recreation goals and objectives while protecting scenic, natural, cultural, and recreation resources.
- Promote alternative modes of transportation to improve safety and enjoyment of the traveling public and to help alleviate future traffic demand.

#### SR-14 Corridor Management Plan

- Improve safety along SR-14 with respect for the protection and enhancement of resources.
- Enhance the economy of communities along the highway.
- Design Highway 14 as a national attraction by protecting and enhancing scenic, natural, cultural, and recreation resources within the highway corridor, with respect to local residences, and business.
- Manage the SR-14 Corridor in the most efficient and effective manner possible.

# **Transportation Strategy**

The Regional Transportation Plan for Skamania County is the region's transportation strategy.

# **Guidelines and Principles**

In 1994, the State Legislature passed Substitute House Bill 1928. This legislation requires RTPO's to establish Guidelines and Principles that provide direction for the development of the transportation elements of comprehensive plans. The following represent these guidelines and principles:

- Identify adequate areas for future commercial, retail, and industrial economic growth. Coordinate identified economic growth areas with an efficient transportation system.
- Identify adequate land for residential development and density within urban areas that is coordinated with the transportation system.
- Provide a transportation system that supports the economic vitality of the region, and provides for long-term freight mobility needs and port access.
- Provide a range of non-motorized opportunities within the regional transportation system.
- Work toward the development of a core system of all-weather roads for freight travel.
- Encourage reducing the reliance on the single occupant vehicle by providing other modes of transportation.
- Encourage present and future railroad right of way to be utilized for transportation purposes.
- Enhance intermodal freight connections.

# Scope

The RTP for Skamania County takes the year 2025 as its horizon year. Travel demand for the region is forecasted for this future year and improvements to the transportation system are recommended based on the projected demand.

The area covered by the RTP is the whole of Skamania County. Skamania County is located in the southern part of the state of Washington along the north banks of the Columbia River. Stevenson, the county seat, lies approximately 45 miles east of Portland, Oregon and Vancouver, Washington (Figure 1-1).

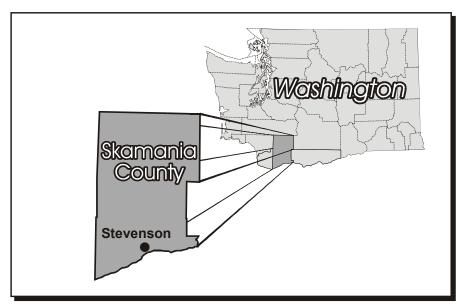


Figure 1-1

People and freight move throughout a regional transportation system without consideration for city, county, or state boundaries. Since transportation problems extend beyond jurisdictional boundaries, the RTP must analyze the future transportation needs for the entire region while creating a cooperative framework for coordinating the individual actions of various jurisdictions.

# **Transportation Issues Addressed in RTP**

- Transportation system maintenance, preservation and safety.
- Development of corridors to improve economic development potential.
- Accessibility across the Columbia River in terms of capacity, economic development, corridor location, and connecting roadways.
- Federal, state, local, and private sources of revenue for transportation projects.
- Access to ports, airports, intermodal transportation facilities, major freight distribution routes, and recreation areas.
- The need to relieve and prevent congestion from occurring where it does not yet occur.
- The need to improve corridors with safety problems, including freight corridors.

- The need to provide a multimodal transportation system; including pedestrian, bicycle, bus, truck, rail, marine, and auto.
- The need to provide enhancements (signs, viewpoints, kiosk, etc.), to assist visitors.

# **Statutory Requirements**

#### State

Regional Transportation Plans are expected to be consistent with the policy framework and objectives described in Washington's Transportation Plan (WTP) 2003-2022 (WSDOT; February 2002). In the 1998 session, the Washington State Legislature directed WSDOT to focus the 2002 WTP update on five primary goals for the state transportation system:

- Congestion Relief
- Preservation
- Safety
- Freight Mobility
- Seamless Connections

The WTP provides an overview of the state and its transportation systems, presents transportation issues and trends, and describes transportation issues and needs from an RTPO, a tribal, and a statewide perspective. The WTP policy framework sets a course for the state's transportation future and determines which transportation investments are needed. Statewide policy is established to achieve three key elements of a desirable future: vibrant communities, a vital economy, and a sustainable environment.

The WTP is a statewide multimodal transportation plan that addresses transportation facilities owned and operated by the state, including state highways, the Washington State Ferries, and state-owned airports. It also addresses facilities and services that the state does not own, but has an interest in. These include public transportation, freight rail, intercity passenger rail, marine ports and navigation, non-motorized transportation, and aviation. Specific state highway needs are identified in the *State Highway System Plan (HSP)*, 2003-2022 (WSDOT; February, 2002). The HSP is a primary element of the WTP and is updated every two years to guide WSDOT in prioritizing and budgeting for highway projects. The *Public Transportation and Intercity Rail Passenger Plan for Washington State*, 1997-2016, (December 1996), is the twenty-year Plan for preserving public transportation systems while improving mobility for a growing population.

#### Washington State's Regional Transportation Planning Program

Washington State's Growth Management Act (ESHB 2929), enacted in 1990, approved the Regional Transportation Planning Program, which created a formal mechanism for the State and local governments to coordinate transportation planning for regional transportation facilities. The Growth Management Act (GMA) authorized the creation of Regional Transportation Planning Organizations (RTPOs) by units of local government. Southwest Washington Regional Transportation Council (RTC) is the designated RTPO for the three-county area of Clark, Skamania, and Klickitat. In 1994 further state legislation (SHB 1928) clarified the duties of the RTPO outlined in the GMA and further defined RTPO planning standards.

The duties of the RTPO, as outlined in the GMA and SHB 1928, include:

- Designation of the regional transportation system.
- Development of a six year regional **Transportation Improvement Program** (TIP), including regionally significant projects. The TIP must include a financial plan.
- Development of a **Regional Transportation Plan (RTP)**, to include a regional transportation strategy, identification of existing and planned facilities and programs, Level of Service standards, a financial plan, assessment of regional development patterns and capital investment using a regional transportation approach. The concept of least cost planning was introduced in SHB 1928 and it is required that it be employed in development of the RTP. The RTP must be reviewed at least every two years to ensure that it is current.
- Establish guidelines and principles for development and evaluation of the transportation elements of local comprehensive plans.

It is intended that the Regional Transportation Planning Program be integrated with, and augment, the federally required Metropolitan Planning Organization (MPO) program. The regional transportation planning program extends transportation planning by the RTPO's to rural areas not covered by the federal program. It is intended that the program tie in and be consistent with local comprehensive planning.

The regional transportation planning process should:

- Guide the improvement of the regional transportation system.
- Use regionally consistent technical methods and data.
- Consider environmental impacts.
- Ensure early and continuous public involvement.
- Be consistent with the local comprehensive planning process.
- Be an ongoing process.
- Incorporate multimodal planning activities.
- Address major capacity expansion and operational improvements to the regional transportation system.
- Be a partnership, including federal, state, and local governments, special districts, private sector, general public, and others during conception, technical analysis, policy development, and decision-making.

To comply with State standards the RTP shall include the following components:

- Description of the designated regional transportation system.
- Regional transportation goals, policies, and strategy.
- Regional land use strategy. Existing and proposed land uses defined on local and regional comprehensive land use plans determine the regional development strategy.
- Identification of regional transportation needs. An inventory of existing regional transportation facilities and services, identification of current deficiencies, and forecast of future travel demand will be carried out.
- Development of LOS standards consistent with House Bill 1487.
- Development of financial plan for necessary transportation system improvements.
- Regional transportation system improvement and strategy plan. Specific facility or service improvements will be identified and priorities determined.

- Establishment of a performance monitoring program. The performance of the transportation system will be monitored over time. The monitoring methodology, data collection, and analysis techniques to be used will be outlined.
- Plans for implementation of the RTP

# **Intergovernmental Coordination**

In order to make the RTP not only a Plan to provide carefully thought-out solutions to transportation issues and problems but also a Plan that all jurisdictions can implement, a regional transportation planning committee structure has been established. Consistent with the 1990 GMA legislation, a three-county RTC Board of Directors has been established to serve the RTPO region. Individual County Committees and Boards also play a part in the regional transportation decision-making. The Skamania County Transportation Policy Committee continues to guide Skamania County regional transportation policy. The role of, and representation on, the RTC Board of Directors and individual County Policy Committees is described in the *Bylaws of Southwest Washington Regional Transportation Council* (July 7, 1992) and *Interlocal Agreement for Establishment of the Southwest Washington Regional Transportation Council*. The regional transportation committee structure is outlined in Figure 1-

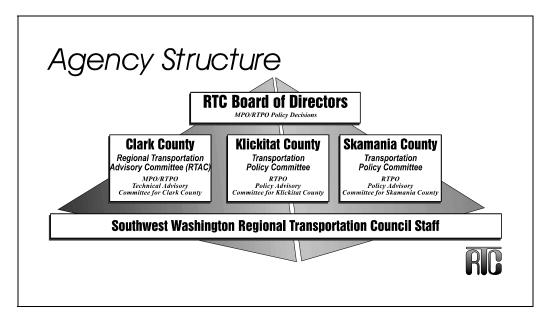


Figure 1-2

# Skamania County Transportation Policy Committee

The Skamania County Transportation Policy Committee was established to provide a focus for Skamania County regional transportation issues and policies. It is composed of representatives of Washington State Department of Transportation (WSDOT), Skamania County, the City of Stevenson, the City of North Bonneville, and the Port of Skamania County. In addition, other agencies and organizations can participate as non-voting members of the committee.

2.

The Skamania County Transportation Policy Committee carries out regional transportation planning activities within Skamania County. However, since much of Skamania County population lies within the Columbia River Gorge National Scenic Area, it is essential to coordinate these activities with the Columbia River Gorge Commission and USDA Forest Service. Coordination and cooperation in transportation planning activities are afforded by encouraging their participation on the Skamania County Transportation Policy Committee.

# Skamania County Regional Transportation Plan: Work Plan

As a first step in preparation of the Skamania County RTP, a work plan was developed. (See Figure 1-3). The work plan outlines major tasks to be covered in the development of the RTP. The RTP is designed as a benchmark Plan which will meet RTPO elements required by the 1990 GMA legislation and SHB 1928 legislation of 1994.

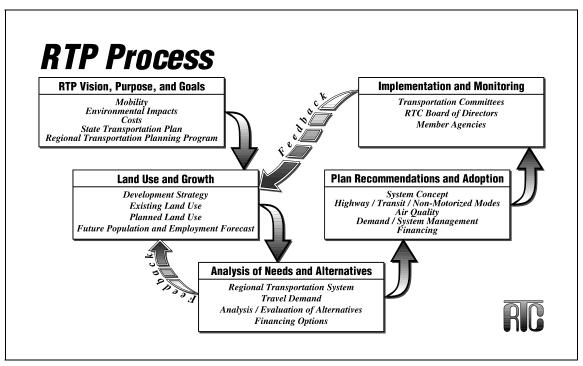


Figure 1-3

An outline of the chapters of the Plan follows:

# Chapter Summaries:

<u>Chapter 1</u>: **Introduction: RTP Vision, Purpose, and Goals**. The RTP is introduced and its general goals, policies, statutory authority, and purpose are described. The RTP process is outlined as well as regional transportation committee structure and intergovernmental cooperation and coordination of the RTP.

- <u>Chapter 2</u>: **Regional Land Use and Growth**. Skamania County's demographic data, development trends, and regional development strategy are discussed. Existing and future land uses and development patterns are identified.
- <u>Chapter 3</u>: **Identification of Regional Transportation Needs**. The regional transportation system is designated and defined. The characteristics and patterns of current and future regional travel demand, current transportation problem locations, and future regional needs are described. Needs criteria such as accessibility, levels of service, and safety are outlined.
- <u>Chapter 4</u>: **Financial Plan**. Revenue sources are identified and described, and a plan for financing transportation system improvements is presented.
- <u>Chapter 5</u>: **System Improvement and Strategy Plan**. Recommendations for development of the regional transportation system are made. Regional transportation goals and policies are reviewed.
- <u>Chapter 6</u>: **Performance Monitoring**. Performance monitoring measures are described and procedures to maintain the RTP's consistency with the state transportation plan, local transportation plans, land use decisions, and regional demographic projections are outlined.
- <u>Chapter 7</u>: **Plan Development and Implementation**. Provisions for involvement of the public in development of the RTP are described. Provisions for the implementation of regional transportation goals, policies, and actions established by the RTP are described. The RTP review and amendment process is outlined should changing policies, financial conditions, or growth patterns warrant amendment of the Plan. The required biennial review of the RTP is described.

# **CHAPTER TWO**

LAND USE, GROWTH, AND TRANSPORTATION

# **Land Use and Transportation**

In developing a regional transportation plan, the fundamental relationship between transportation and land use must be recognized, and the effect that land use and growth have on transportation must be taken into consideration. The Land Use/Transportation cycle is illustrated in Figure 2-1.

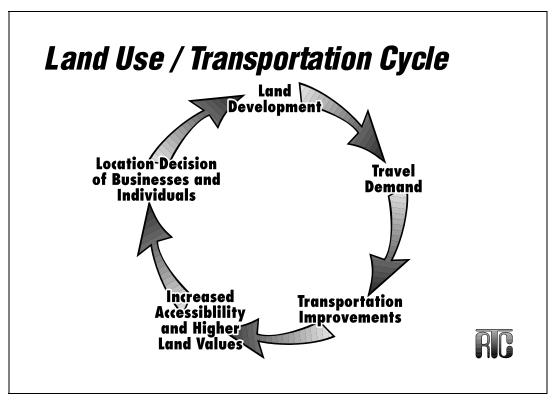


Figure 2-1

The linkage between land use and transportation is a complex issue, but on a simple level the linkage can be thought of as working in two ways:

- 1) The spatial distribution and type of land use activity influences both the demand for travel and travel characteristics. Different types of land use generate and attract differing traffic rates, for example, retail land uses will generate more trips than residential land uses.
- 2) Improving access by expanding the transportation system allows for the development of land that was formerly inaccessible.

It can be shown that land use and transportation are inter-linked and that land use activities largely determine travel demand and desire. When different land uses are segmented or separated, length of trips tends to increase. These longer trips are usually served more conveniently by the automobile, thus reducing the use of transportation alternatives, such as walking or transit, to meet mobility needs.

#### Management Plan for Columbia River Gorge National Scenic Area

Most of the southern, more populous portion of Skamania County is located in the Columbia River Gorge National Scenic Area (Scenic Area). Thus, local land use is effected by the guidelines of the *Management Plan for the Columbia River Gorge National Scenic Area* (Management Plan). In 1993, Skamania County adopted land use ordinances that are consistent with the Management Plan. These ordinances adopted by the County provide for local implementation of the Management Plan.

The Management Plan includes direction for future land use in the Scenic Area. This land use direction will influence the regional transportation system and travel patterns. New industrial development in the Scenic Area can only be located within the urban areas. There is provision for some new commercial and rural residential development outside of urban areas, mainly in existing rural communities like Skamania. Denser residential development and more intensive commercial uses are encouraged to occur within the existing urban areas.

The communities of Stevenson, North Bonneville, Carson, and Home Valley are designated urban areas that are exempt from the Management Plan guidelines. Land use planning in these communities is governed by local comprehensive plans.

# **Growth and Development**

Sustained economic development and growth within a region is desirable because of the economic benefits that increased employment and a larger tax base can bring. However, while growth can contribute to the health of a region's economy, it can also have negative impacts. Unmanaged, fast rates of growth can have a severe impact on the ability of a community to provide services and infrastructure.

The need to maintain economic viability, and at the same time, quality of life is a challenge. Components that contribute to a desirable quality of life include job opportunities, affordable housing, a healthy environment with clean air and recreational opportunities. An efficient, safe transportation system contributes to the quality of life for residents of a region and can act as an attractor for economic development. Conversely, a transportation system dependent on deteriorating and outmoded facilities can be an inhibitor to the efficient, safe movement of people and goods.

# Growth in Skamania County

Skamania County has seen moderate growth in the last two decades. The U.S. Census Bureau, Washington State's Office of Financial Management (OFM), and Bureau of Economic Analysis (BEA) provided the following data. BEA employment includes all wage and salaried jobs as well as proprietors jobs that includes sole proprietor, self employed and farm employment.

Between 1983 and 2000 the population of the county increased by 27% from 7,800 to 9,872, while the number of housing units increased by 28% from 3,581 to 4,576. With the construction of a new powerhouse at the Bonneville Dam employment figures were artificially high in 1980, with a total employment of 4,025. By 1983 the total BEA Employment had decreased to 2,516 (37% decrease). The increase in BEA employment, between 1983 and 2000 was 18% from 2,516 in 1983 to 2,979 in 2000. (See Figure 2-2)

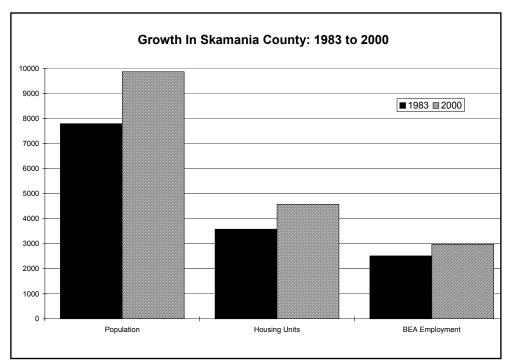


Figure 2-2

Skamania County has seen a large increase in recreation activity, due to the Columbia River Gorge National Scenic Area, Gifford Pinchot National Forest, Mt. St. Helens Volcanic Monument, Beacon Rock State Park, Skamania Lodge, Interpretive Center, and windsurfing. The growth of recreational activities seen in the county in the last two decades has increased seasonal demands on the regional transportation system.

Development of a transportation policy plan must consider how to plan for a transportation system that can support increases in travel demand caused by growth in population, employment, and recreational activity. At the same time, this system must be affordable and minimize environmental impacts to maintain the rural quality of life. A safe, efficient transportation system can work to enhance economic development within a region.

# **General Land Uses in Skamania County**

The population of Skamania County is concentrated in the southern quarter of the county near the Columbia River and in the Wind River Valley. The county has diverse environments, ranging from the gently sloping lands near the Columbia River to rugged and steep mountainous evergreen forest. The Cascade Mountains traverse Skamania County from north to south. Most of the County is heavily forested, with over 98 percent in public and private forest land. Of the total County acreage, 92 percent is in public ownership, while only 8 percent is in private ownership. Much of the private ownership is within the National Scenic Area.

The provision of public facilities and services, including transportation, is a principal determinant of land use patterns. Although the growth in Skamania County has been moderate, much of growth and development has taken place near the transportation corridors of the Columbia River and State Route 14.

#### **Planned Land Use**

Comprehensive plans are the means by which local jurisdictions can plan for their future growth and development; they can provide a process for anticipating and influencing the orderly and coordinated development of land. Within Washington State, planning authority is delegated by the state to local governments in RCW 36.70A, 35.63 and 35A.63. Comprehensive plans are required to have a land use element showing the general distribution and location of land for various uses, as well as a circulation element showing the street system and transportation routes. Skamania County, City of Stevenson, and City of North Bonneville all have currently adopted comprehensive plans.

The Scenic Area Act required that a Management Plan be developed, which includes land use designations outside of urban areas. In 1991, the Management Plan for Scenic Area was adopted. In 1993, Skamania County adopted land use ordinances that are consistent with the Management Plan. These ordinances adopted by the County provide for local implementation of the Management Plan.

Local comprehensive plans and the Management Plan for the Columbia River Gorge National Scenic Area encourages the future development of residential, commercial, and industrial lands in the Urban Areas. There is provision for the development of some commercial and residential lands outside of the urban areas. In addition, the Skamania County Comprehensive Plan provides for other land uses such as agriculture and timber.

# 2025 Population and Employment Forecast

The Washington State Office Of Financial Management (OFM) develops population forecast for all counties in the State of Washington. Their forecast contains a low, medium, and high estimate. The February 2002 forecast developed by OFM for 2025 population in Skamania County ranged from a low of 10,972 to a high of 15,503. For the purpose of the Regional Transportation Plan the medium forecast of 12,927 will be used. The 2025 forecast represents a 31% or 3,055 increase in population from 2000 to 2025.

Housing and employment forecast for Skamania County were developed by RTC based on population forecast and historical trends. Estimated 2025 housing is 6,450 units. The 2025 forecast represents a 41% or 1,874 increase in housing units from 2000 to 2025. Estimated 2025 BEA employment is 3,750. This 2025 forecast represents a 26% or 771 increase in employment from 2000 to 2025 (see Figure 2-3).

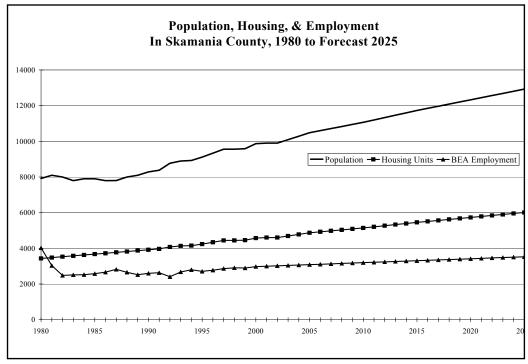


Figure 2-3

# **Demographic Trends**

Growth in population and employment, development and resulting land use patterns together with its distribution all affect travel demand. However, other demographic factors also influence travel demand. These factors include household size, workforce participation, employment patterns, and vehicle ownership.

Household size is one of the most significant demographic factors that influences land use and demand for transportation services. Between 1970 and 1990 there was a trend toward smaller household size due to more single-person households and smaller family size. In 1970 the average number of persons per housing unit in Skamania County was 2.69, but by 1990 it had fallen to 2.11. The decade of the 1990's saw a small increase in persons per housing unit in Skamania County with the 2000 U.S. Census recording an average 2.16 persons per housing unit. The 2025 forecast is 2.15 persons per housing unit.

Another demographic trend that effects travel demand is the increase in two-worker households. Typically, the two workers in the household each use an auto to get to work, use the auto for work purposes while at work, use it to run errands at lunch time and before or after work and, if they have a family, to take their children to daycare facilities. All result in people's increased reliance on the automobile that people consider their most convenient transportation mode.

Employment patterns have also been changing, with a relative decline seen in the traditional, industrial or timber jobs and an increase in service sector employment. With modern technology, there has also been a rapid growth in workers who are able to work at home. In addition, as the traditional timber jobs are lost, there is a trend for Skamania County residents to be employed in other counties. The 2000 Census shows that 52.3% of the county residents

worked outside of Skamania County. Table 2-1 shows data of those living and/or working in Skamania County. (1990 and 2000 Census).

Table 2-1

	Endflow Place of	of Work –	<u>Skamania</u>	County					
			1990		2000	1990-2000			
Place of Residence	Place of Work	1990	Percent	2000	Percent	Change			
Skamania County	Skamania County	1,753	53.7%	2,032	47.7%	279			
-	Clark County, WA	547	16.8%	896	21.0%	349			
	Multnomah Co., OR	327	10.0%	535	12.6%	208			
	Hood River Co., OR	252	7.7%	355	8.3%	103			
	Klickitat Co., WA	247	7.6%	205	4.8%	-42			
	Other Washington	15	0.5%	63	1.5%	48			
	Other Oregon	89	2.7%	148	3.5%	59			
	Other	32	1.0%	27	0.6%	-5			
Skamania Co. Em	ployed Workforce	3,262		4,261		999			
Skamania County	Skamania County	1,753	53.7%	2,032	47.7%	279			
Clark Co., WA		175	7.6%	124	4.8%	-51			
Multnomah Co., OR		58	2.5%	61	2.4%	3			
Hood River Co., OR		113	4.9%	70	2.7%	-43			
Klickitat Co., WA		131	5.7%	147	5.7%	16			
Other Washington		50	2.2%	24	0.9%	-26			
Other Oregon		15	0.7%	76	3.0%	61			
Other		9	0.4%	24	0.9%	15			
Employment with	hin Skamania Co.	2,304		2,558		254			

Travel demand has also grown as the number of registered vehicles and passenger cars in Skamania County has increased in the past two decades (see Figure 2-4). From 1980 to 2000 there has been an increase in population of Skamania County of 25%, but at the same time there has been a 46% increase in registered passenger cars. Table 2-2 shows the 1980 to 2000 increase in registered passenger cars and registered vehicles (includes all trucks, commercial and recreational vehicles, plus passenger cars) in Skamania County.

Table 2-2

	SKAMANIA COUNTY										
		Housing	Persons Per Housing	Passenger	Cars Per Housing	Registered	Vehicles Per Housing				
Year	Population	Units	Unit	Cars	Unit	Vehicles	Unit				
1980	7,919	3,435	2.31	3,536	1.03	4,904	1.43				
1990	8,299	3,922	2.11	5,254	1.34	6,002	1.53				
2000	9,872	4,576	2.16	6,943	1.52	7,178	1.57				

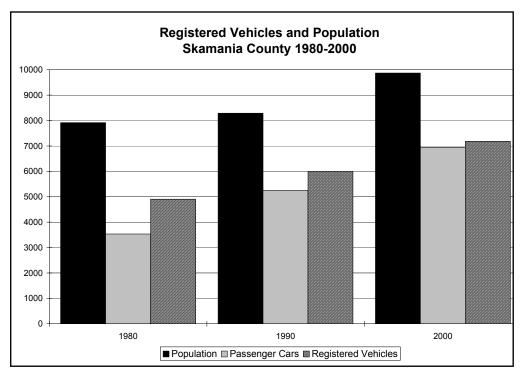


Figure 2-4

There are several trends that affect seasonal travel demand within Skamania County. First, is the trend of additional retired residents who live in Skamania County, but spend their winters in a warmer climate. These resident add to the local traffic from spring to fall. Second, is the increased popularity of the Columbia River Gorge area as a recreational attractor. Since its designation as a National Scenic Area, summer traffic volumes have rapidly increased.

Table 2-3 also provides information that compares 1990 and 2000 Census Journey to Work data. This data displays several trends impacting the commuter travel times. First, the data shows that commute times have increased by 6.9 minutes. Second, the use of carpools increased. Third, there has been an increase in the number of people working from home.

**Table 2-3 JOURNEY TO WORK – Skamania County** 

		1990		2000	1990 to 2000	1990 to 2000 Percent	2000 WA State
Skamania County	1990	Percent	2000	Percent	Growth	Change	Percent
Commuters	3,262	100.0%	4,261	100.0%	999	30.6%	100%
Drive Alone	2,651	81.3%	3,238	76.0%	587	22.1%	73.3%
Carpool	331	10.1%	631	14.8%	300	90.6%	12.8%
Transit	11	0.3%	21	0.5%	10	90.9%	4.9%
Bicycle or Walked	149	4.6%	104	2.4%	-45	-30.2%	3.8%
Motorcycle/Other	34	1.0%	26	0.6%	-8	-23.5%	0.9%
Worked at Home	86	2.6%	241	5.7%	155	180.2%	4.3%
Mean Travel Time to Work (minutes)	22.3	N/A	29.2	N/A	6.9	N/A	25.5

#### CHAPTER THREE

#### IDENTIFICATION OF REGIONAL TRANSPORTATION NEEDS

# **Current Functional Classification of the Regional Roadway System**

Arterials are categorized into a functional classification system; the classifying of highways, roads, and streets into groups having similar characteristics for providing mobility and/or land access. Interstate freeways, classified as divided principal arterials, are designed to provide for the highest degree of mobility of large volumes of long-distance traffic. They are not designed to provide for access to land uses. Collector facilities generally provide equal emphasis upon mobility and land use accessibility. Local facilities emphasize access to land uses.

To meet the requirements of ISTEA, the Federal Functional Classification system for Skamania County roads was reviewed in 1993. This review resulted in a county-wide uniform classification system. Generally, facilities classified as Major Collector or above in rural areas are eligible for federal funding. The Appendices in the back of this document includes a map of the Federal Functional Classification system.

ISTEA also required that roads be designated as National Highway System (NHS) facilities. Congress approved the NHS System with passage of the National Highway System Designation Act of 1995 (NHS Act). In Skamania County, SR-14 has been designated as an NHS facility.

In 1999, the state legislature adopted Highways of Statewide Significance, fulfilling a requirement of House Bill 1487 passed in 1998. In Skamania County, the only highway facility defined as "of Statewide Significance" is SR-14.

A description of the rural functional classification categories follows:

#### Rural Principal Arterials

Rural principal arterials are sub-divided into two sets (1) interstate facilities and (2) other principal arterials. Rural principal arterials serve corridor movements having trip length and travel density characteristics of statewide or interstate travel. They consist of a connected rural network of continuous routes.

#### Rural Minor Arterials

In conjunction with the principal arterials, the rural minor arterials form a rural network which link cities and larger towns together with other major traffic generators. The principal arterials and rural minor arterials are spaced at such intervals that all developed areas of the state are within a reasonable distance of an arterial highway. Minor arterials should be expected to provide for relatively high overall travel speeds with minimum interference to through movement.

#### Rural Major Collector Roads

Rural major collectors provide service to larger towns not directly served by the higher systems and to other traffic generators of equivalent importance. Rural major collectors serve the more important travel corridors within the county.

#### **Rural Minor Collector Roads**

Rural minor collectors are spaced at intervals, consistent with population density, to collect traffic from local roads and provide developed areas with reasonable distance to a collector road. Rural minor collectors provide service to the remaining smaller communities and link the locally important traffic generators with surrounding rural areas.

#### Rural Local Roads

Local streets provide direct access to abutting land and access to the higher classification facilities. They offer the lowest level of mobility. They are not intended to carry through traffic; however, they do make up a large percentage of the total street mileage.

# **Designation Of The RTP Regional Transportation System**

Consistent with the state's Regional Transportation Planning Program Planning Standards the RTP regional transportation system has been designated to include:

- 1. All state transportation facilities and services (including state highways)
- 2. All local principal arterials (the definition of rural principal arterials can be the same as used for federal classification or be regionally determined).
- 3. All other transportation facilities and services, including airports, transit services and facilities, roadways, rail facilities, marine transportation facilities etc. that the RTPO considers necessary to complete the regional plan.
- 4. Any transportation facility or service that is regionally needed or impacts places in the plan, as determined by the RTPO.

A detailed description of the designated RTP Regional Transportation System follows:

#### 1. All state transportation facilities and services

In Skamania County this category includes State Route SR-14 and SR-504.

**SR-14** provides the main east-west access from south-west Clark/Skamania County line to south-east Klickitat/Skamania County line along the north bank of the Columbia River. The facility has two lanes in each direction and extends 41.71 miles through Skamania County between Clark County and Klickitat County lines.

**SR-504** provides the main access from I-5 (Cowlitz County) east to the Mount St. Helens National Volcanic Monument. Skamania County has identified the need to connect SR-504 east to U.S. Forest Service highways.

- 2. **All local principal arterials**: SR-14 and SR-504 are the only local rural principle arterials.
- 3. All other transportation facilities and services considered necessary to complete the regional transportation plan. These include transit services and facilities, roadways, rail facilities, airports, marine transportation facilities etc.

# **Major Collectors**

All local major collectors are designated as part of the regional transportation system. Major collectors include such facilities as First Street (Stevenson), Wind River Road, Cook-Underwood Road, Washougal River Road, Salmon Falls Road, and Canyon Creek Road.

#### Forest Service Road System

With much of Skamania County located within the Gifford Pinchot National Forest, the forest Highway system plays an important part in the economy of Skamania County. Forest Highways to be included in the regional transportation system are Forest Roads 23, 25, 30, 88 and 90.

#### **Port Facilities**

Skamania County has one <u>Port District</u>; the Port of Skamania County. The Port of Skamania County is a municipal corporation of the State of Washington. The Port currently maintains an asset base of \$10 million of industrial and recreational lands, buildings, and other facilities.

The Port's primary mission is economic development and job creation in industrial and commercial-related businesses. Major port activities include leasing approximately 100,000 square feet of industrial and office space in light industrial buildings in Stevenson, Carson, and North Bonneville, and ownership of the Beacon Rock Golf Course in North Bonneville. The Port also owns a tour boat dock at Stevenson Landing and three riverfront parks in Stevenson, providing public water access to the Columbia River for windsurfing, boating, and other related recreational activities and events. A water system and a 90,000 gallon reservoir is also located in the Carson industrial park which provides fire suppression services and currently services 14 households.

#### Airport Facilities

There are no public airfields currently operating in Skamania County. However, there are a few private airfields. Portland International Airport (PDX) is located in Portland, Oregon approximately 45 miles west of Stevenson, south-west of the I-205 Glenn Jackson Bridge. This is a regional airport with domestic and international passenger and freight service.

#### **Bridges**

All public bridges including Columbia River bridges are designated as part of the regional transportation system. There are over 30 public bridges located in Skamania County. The Bridge of the Gods and the Hood River Bridge are the only bridges crossing the Columbia River from Oregon to Washington in the Skamania County region. Both of these bridges are toll Bridges which are owned and operated by Oregon Port Districts. All bridges are important to the movement of people and goods within the region. However, those along the regional transportation system are essential to the region.

#### Rail Facilities

There is one main rail line in use in Skamania County which provides freight and passenger service. This main line is owned by Burlington Northern Santa Fe (BNSF). The BNSF Vancouver/Eastern Washington line has two tracks in good condition with up to 60 trains operating on the line daily. Amtrak also has an agreement with BNSF to operate passenger service on the freight carrier's rail lines, providing service from Vancouver traveling east through Skamania County toward Spokane. Although there are no Amtrak stations in Skamania County, most Skamania County residents are within an hour drive of stations in Bingen and Vancouver.

Along the main rail line, there are seven public and numerous private railroad crossings in Skamania County. The public railroad crossings are listed in Table 3-1.

Table 3-1

Skamania County Railroad Crossings						
Road	Mile Post	Warning System				
Cape Horn Road	1.50	Stop Signs				
SR 14 (St. Cloud)	29.92	Warning Lights				
SR 14 (Skamania Landing)	32.85	Warning Lights				
SR 14 (Skamania Landing)	33.50	Warning Lights				
SR 14 (Stevenson)	44.43	Warning Lights and Drawbars				
SR 14 (Cemetery)	45.30	Stop Sign, Tracks Warning				
SR 14 (Home Valley Park)	50.29	Overhead/Side Lights, Drawbars				

#### Columbia River

Historically the Columbia River has always been an important transportation corridor to Skamania County. The Columbia River, as a transportation corridor, is used to move goods and people. Tour boats frequent the Columbia River and dock in Stevenson.

#### **Enhancements**

Transportation enhancements are designated as part of the regional transportation system. Enhancements include facilities for bicycles and pedestrians, scenic vistas, thematic signage, rest stops, and roadside beautification along the regional road network.

The Pacific Crest Trail traverses Skamania County from North to South. Access from SR-14 is at the Bridge of the Gods.

#### **Public Transportation**

Skamania County Senior Services provides general public Dial-A-Ride service in Skamania County. Although, the service provides preference to seniors and persons with disabilities, all County residents are eligible. The majority of system trips are for medical, social service, and shopping purposes. This service does provide transportation service as far west as Vancouver/Portland and east to The Dalles. Out-of-county medical trips are given priority over shopping or personal trips, although trip purposes are grouped when possible. The system has a number of vehicle types including a 26-passenger bus, a smaller 14-passenger vehicle, and wheelchair accessible minivans. The program also operates a volunteer driver program.

In addition to Senior Services, there are private firms that provide transit service to Portland International Airport. Greyhound also provides service between Yakima and Portland, with a stop in Stevenson. Greyhound service may end in 2003.

Currently, a Public Transit Feasibility Study is being undertaken to determine the need and feasibility of the development of a formal transit system in Skamania County. Current service is unable to meet the needs of work and after school trips. The study is scheduled to conclude in the spring of 2003.

#### **Growth in Traffic Volumes**

As a result of socio-economic and demographic changes described in Chapter 2, Skamania County has seen an increase in traffic volumes in recent years. Washington State Department of Transportation compiles traffic count data along State Routes. Traffic volumes along SR-14 in the Columbia River Gorge National Scenic Area vary by season, with summer traffic volumes significantly higher than winter traffic volumes. Examples of growth in traffic volumes at selected locations along SR 14 in Skamania County are listed in Table 3-2.

Traffic Volumes – All Day (ADT)									
Location Leg Volumes Volumes Increase Increase									
Bridge of The Gods	S	2,100	3,800	81%	4.76%				
SR-14 at Clark Co. Line	Е	1,800	4,400	144%	8.50%				
SR-14 at Bridge of The Gods	Е	3,750	7,600	103%	6.04%				
SR-14 at Russel Ave.	W	4,700	8,500	81%	4.76%				
SR-14 at Wind River Rd.	W	3,600	7,200	100%	5.88%				
SR-14 at Wind River Rd.	Е	1,600	3,100	94%	5.51%				
SR-14 at Klickitat Co. Line	W	2,900	6,300	117%	6.90%				

Table 3-2

#### **Future Travel Demand**

Future travel demand was forecasted for the Skamania region based on historic trends, net changes in land use and activity levels, applying appropriate traffic generation rates, and then using trip distribution information to determine the direction of travel.

The RTP network is considered to be the same transportation network as exists today. It is used only as a base case scenario for forecasting future travel demand and potential traffic volumes on road segments and does not constitute a recommended network. Traffic volumes could differ significantly from those that result from the future trip assignment onto the RTP network if significant and successful changes are made to the transportation system.

Burlington Northern Santa Fe operates the east-west railroad route along the Washington side of the Columbia River Gorge and through Skamania County. This route is currently experiencing capacity constraints and will continue in the future without some kind of expansion.

The Columbia River system is an important transportation corridor for the movement of goods. In order to meet the travel demand associated with this corridor, it will be essential to preserve appropriate channel depths and widths for shipping, and to maintain current lock handling capacity.

Walking and bicycling are integral parts of the transportation system. People walk and bike for various trips. Walking and bicycling trips are usually short and demand is greater in urban areas. However, there is a demand for bicycling facilities along SR-14 for touring bicyclist.

Public transit is an important aspect of the transportation system, especially for those with limited income, elderly, and disabled. With an aging population and per capita income lower than the state average, the demand for public transit will increase in Skamania County.

#### **Levels of Service**

Levels of service standards represent the minimum performance level desired for transportation facilities and services within the region. They are used as a gauge for evaluating the quality of service on the transportation system and can be described by travel times, travel speed, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Levels of service are defined as "qualitative measures describing operational conditions within a traffic stream, and their perception by motorists and/or passengers". These levels of service are designated A through F, from best to worst. Level of service E describes conditions approaching and at capacity. For uninterrupted flow conditions, the following definitions apply:

- <u>Level of Service A</u> describes free flow conditions, with low volumes and high speeds. The general level of comfort and convenience provided to the motorist, passenger, or pedestrian is excellent.
- <u>Level of Service B</u> is in the range of stable flow but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver with the traffic stream from Level of Service A.
- <u>Level of Service C</u> is still in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. The general level of comfort and convenience declines noticeably at this level.
- <u>Level of Service D</u> represents high-density, but stable flow. Speed and freedom to maneuver are severely restricted, and the driver or pedestrian experiences a generally poor level of comfort and convenience.
- <u>Level of Service E</u> represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Comfort and convenience levels are extremely poor and driver or pedestrian frustration is generally high.
- <u>Level of Service F</u> describes forced or breakdown flow. These conditions usually result from queues of vehicles backing up from a restriction downstream. Operations within the queue are characterized by stop-and-go waves, and they are extremely unstable.

#### **Level of Service Standards**

In 1998 the Washington Sate Legislature passed House Bill 1487, otherwise known as the Level of Service (LOS) Bill. The Bill set new requirements relating to transportation and growth management planning. The intent of the legislation was to enhance the coordination of planning efforts and plan consistency at the local, regional, and state level. The key applicable elements include:

Highways of Statewide Significance: The State must give higher priority to correcting identified deficiencies on transportation facilities of statewide significance. Designation of Highways of

From *Highway Capacity Manual*, Transportation Research Board, 1985

Statewide Significance (HSS) was completed in 1999. In the Skamania County region, the HSS system includes SR-14. WSDOT has established an LOS 'C' for rural HSS facilities like SR-14.

*Non-Highways of Statewide Significance*: Non-HSS state highways, otherwise know as Highways of Regional Significance, in Skamania County include SR-504. The RTPO has established an LOS 'C' for rural non-HSS.

# **Capacity Analysis**

The Highway Capacity Software was used to analyze level of service within the Skamania County Region based on P.M. peak hour traffic. In addition, there are several locations with capacity deficiencies associated with substandard curves and steep grades, which create a particular problem in the Columbia River Gorge area due to the mix of trucks, recreational vehicles, and autos. Deficient segments associated with capacity are listed in Table 3-3.

Mile Post **Deficient Capacity Segment** LOS Road Clark Co. line to Half Bridge SR-14 21.77 - 24.92 D Half Bridge to Prindle Rd. Vicinity D SR-14 24.92 - 27.87 27.87 - 37.04 Prindle Rd. to North Bonneville. С SR-14 Rock Creek Br. to Wind River Rd. D SR-14 43.90 - 47.44

Table 3-3

# **Safety Analysis**

# Unstable Slopes

Washington State Department of Transportation (WSDOT) began their Unstable Slope Management System in 1993. This management system incorporated a numerical slope hazard rating system. The rating system utilizes a matrix evaluating eleven categories. In 1999, WSDOT completed a Geotechnical Report of unstable slopes along SR-14. Of the sites investigated, 26 priority projects were identified in Skamania. Priority projects had an Unstable Slope Management System rating greater than 200. Those with ratings above 300 total points represent a relatively high hazard slope. A Benefit to Cost (B/C) Ratio is then used to determine project priority. Table 3-4 lists the 26 priority projects along SR-14 in Skamania County.

Table 5-4							
Road	Mile Post	Rating	B/C Ratio	Improvement			
SR-14	24.91-25.00	315	1.70	Reslope			
SR-14	25.0025.20	369	0.34	Realign: Move Bridge			
SR-14	25.40-25.41	N/A	15.63	Debris Flow Fence			
SR-14	25.46-25.50	225	8.75	Rock Fall Fence			
SR-14	25.58-25.59	N/A	15.60	Debris Flow Fence			
SR-14	25.84-25.93	345	1.80	Realign			
SR-14	30.20-30.34	279	2.27	Re-slope			
SR-14	30.37-30.46	345	1.22	Retaining/Buttress Wall			
SR-14	30.90-31.10	219	1.12	Reslope/Realign/Bolts			
SR-14	46.34-46.42	309	7.52	Scaling/Bolts/Trim			

Table 3-4

Road	Mile Post	Rating	B/C Ratio	Improvement
SR-14	46.49-46.56	309	1.80	Realignment/Scaling/Bolts
SR-14	53.28-53.60	267	5.93	Scaling/Bolts or Re-slope
SR-14	53.28-53.60	267	3.56	Euromesh/Scaling/Bolts
SR-14	53.80-53.90	453	2.44	Scaling/Bolts/Cable Net
SR-14	53.80-54.00	453	6.14	Scaling/Bolts
SR-14	53.80-54.10	453	3.76	Euromesh/Fence
SR-14	54.60-54.67	237	5.21	Scaling/Bolts/Fence
SR-14	54.70-54.77	237	4.75	Scaling/Repair Wall
SR-14	54.80-54.97	249	2.54	Re-slope/Erosion Fabric
SR-14	55.05-55.35	327	1.59	Re-slope/Erosion Fabric
SR-14	55.60-55.66	285	1.06	Euromesh/Wire Catchment
SR-14	55.88-55.96	375	1.75	Scaling/Bolts/Shotcrete
SR-14	58.84-58.93	315	1.03	Re-slope/Scaling/Bolts
SR-14	59.07-59.14	261	8.06	Re-slope
SR-14	62.50-63.00	501	1.31	Euromesh/Realign
SR-14	63.05-63.20	429	3.14	Realign

# High Accident Segments

Accident rates were studied based on a three-year accident history (1999-2001) for segments, using accidents per million vehicle miles of travel. However, this methodology does have a tendency to inflate the problem along roads with relatively low traffic volumes. For the purpose of the plan, accident rates along roads with fewer than 2,500 Average Daily Traffic were not considered. Deficient segments associated with safety are listed in Table 3-5.

The highest accident corridors are located near Cape Horn, Beacon Rock State Park, downtown Stevenson, and Tunnels 1 through 5. The only intersection with any accident problem is the Wind River Road intersection. At this intersection poor sight distance and high speed seem to create 2-3 accidents each year. WSDOT has identified a number of High Accident Locations and High Frequency of Accident segments between mile posts 22.73 - 26.40. In general, these segments are located at curves in the road. The City of Stevenson has a current construction project to improve SR-14 through downtown Stevenson and WSDOT has funding for improvements in the Cape Horn area. These improvement projects should improve safety in these corridors.

Table 3-5

Road	Mile Post	Deficient Safety Segment	Total Accidents	Accident Rate
SR-14	21.81 - 23.43	Clark Co. Line to Bell Center Rd.	52	6.96
SR-14	24.00 - 26.40	Bell Center Rd. to Salmon Falls Rd.	50	4.52
SR-14	34.09 - 34.98	Moorage Rd. to Beacon Rock State Park	20	5.12
SR-14	44.08 - 44.60	Downtown Stevenson	20	5.53
SR-14	58.08 - 60.37	Tunnels 1 through 5	19	2.01

#### **Tunnels**

There are five tunnels along SR-14 in Skamania County between mile post 58.08 and 60.27. These tunnels have a 24 foot pavement width and no lighting. The tunnels are arched with a center clearance several feet higher than the 12.9 foot clearance at the outer edge of the pavement. Several of the tunnels are located on curves. Due to the low clearance at the outer edge, large vehicles will regularly cross over the centerline when traveling through a tunnel. This creates a potentially dangerous situation due to sight distance problems, which are magnified by the lack of lighting in the tunnels.

#### **Preservation and Maintenance Need**

Of overwhelming importance in the planning for the regional transportation system is the need to maintain and preserve the existing system in order to protect the heavy investments already made in the system. The RTP supports projects programmed in the Transportation Improvement Program to maintain and preserve the regional transportation system.

A Pavement Management System has been developed for pavement condition on all state road facilities. This system is intended to assist with the prioritization of pavement preservation and to respond to recently observed conditions and predict probable future conditions. WSDOT and local jurisdictions visually inspect pavement conditions of facilities to determine needed maintenance and preservation. Projects that have reached a condition that warrants rehabilitation are programmed into the State and local Six-Year Transportation Improvement Programs.

Washington State has developed a Bridge Management System that includes a procedure to visually survey bridge conditions. This system is intended to assist with the prioritization of bridge replacement and maintenance. Projects with immediate needs are programmed into the State or local Six-Year Transportation Improvement Program. There are many bridges in deteriorating condition, that are of substandard width, and cannot accommodate bicyclist and pedestrian traffic. These bridges will need to be replaced within the next 20 years.

Burlington Northern Santa Fe Railroad maintains the BNSF main rail line through Skamania County. Port of Cascade Locks maintains the Bridge of the Gods. The Port of Hood River maintains the Hood River Bridge. The U.S. Forest Service maintains the Forest Service roads. Under the direction of the U.S. Army Corps of Engineers the Columbia River is maintained. Local jurisdiction and WSDOT maintain bicycle and pedestrian facilities.

#### **Enhancement Need**

There is a need to develop and improve facilities for bicycles, pedestrians, scenic vistas, rest areas, thematic signage, roadside beautification, and other enhancements within the Skamania County region. The Regional Transportation Plan supports cost effective enhancements to the transportation system.

# **Economic Development Need**

The prosperity of a region is dependent on the provision of transportation infrastructure to support economic development. The movement of goods by highway, rail, water, and air are essential to the economy of Skamania County.

The RTP supports improvements to the transportation system that will give prime consideration to economic development and the safe, efficient movement of people and freight. Specifically, freight produced by or material necessary for the operation of businesses and industries in the Skamania County region.

# **CHAPTER FOUR**

FINANCIAL PLAN

#### Overview

Potential transportation improvement projects proposed in this Plan are intended to meet the RTP goals and policy objective as outlined in Chapter One. These goals and policies include making the most efficient use of, and enhancing, the existing transportation system.

The availability of federal, state, and local moneys will have a significant impact on the ability to fund proposed projects. This chapter describes revenue sources and discusses changes to revenue sources as a result of federal and state legislation. The projection of funding ability is based on historical funding levels. The ability of the projected funding to meet RTP costs is determined.

Transportation has traditionally been funded by "user fees". Today, the major tax sources to fund transportation are the gas tax, vehicle licenses, permits, and fees. The Motor Vehicle Excise Tax (MVET) was eliminated after passage of Initiative 695 in 1999. Gas tax is imposed at the federal level (\$0.184 per gallon) and at the State level (\$0.23 per gallon) and is devoted to roadway purposes.

# **Accomplishments Since Last RTP**

The RTP was last adopted in 1998, since that time, significant progress has been completed or is nearing completion on regional improvements in the Skamania County region. First, WSDOT has completed a design study and is progressing with design on the region's highest priority project, SR-14, Marble Road to Salmon Falls Road project. Second, WSDOT has completed an Environmental Assessment for SR-14 Unstable Slopes. Third, City of Stevenson is currently reconstructing SR-14 through downtown Stevenson. Fourth, the community is nearing the completion of the Skamania County Transit Feasibility Study.

#### **Revenue Sources**

#### Federal Funding

The federal funding picture changed significantly with the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and its successor, the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21), passed in 1998. Funding programs in ISTEA and TEA-21 allow much greater flexibility in the way money may be used. ISTEA was considered landmark legislation because it allowed much greater flexibility in the way money may be used, and because it enhanced the role of regions in the programming and prioritization of federal transportation dollars. The most significant change is the multimodal emphasis of the programs, especially the Surface Transportation Program, that gives regions greater independence to invest in alternate modes of travel, including bike and pedestrian facilities and park and ride facilities. A new federal funding Act should be approved by 2004. This new act, is anticipated to be similar to TEA-21. A brief description of the existing funding programs available through the federal transportation funding Act follows.

#### 1. National Highway System (NHS)

National Highway System was a new funding category in ISTEA. It established a National Highway System, which consists of major roads in the U.S. including the interstate system; other routes identified for their strategic defense characteristics; routes providing access to major ports, airports, public transportation and intermodal transportation facilities; and principal arterials that provide regional services. Funding in this category may be used for a wide variety of projects. In addition, states have the option to shift 50% of the money to the STP category, which has greater project flexibility. The State selects and prioritizes projects for NHS funding. The funding level for the NHS program is \$26.8 billion nationwide and \$565 million statewide from 1998 through 2003.

#### 2. Surface Transportation Program

This program is similar to a block grant program and combines the old Federal Primary, Federal Aid Urban, and Federal Aid Secondary categories into a single, flexible, intermodal program. Generally, it can be used for any road or bridge except for local roads or rural minor collectors, although a small portion of the funds reserved for rural areas may be spent on rural minor collectors. In addition to eligibility for operational and capacity improvements to roadways, it allows for the programming of transit capital projects, corridor parking, transportation enhancements, and transportation planning. The funding level for the STP program is \$33.3 billion nationwide and \$890 million statewide from 1998 through 2003. In Washington State, the costs are shared approximately 86.5% federal, and 13.5% local match.

Of the money received by the state, 10% must set aside for safety projects and 10% for transportation enhancements. The following outlines the subprograms that are available.

<u>Regional Allocation</u>: Available to cities, counties, and other public agencies on a county basis. Generally, projects must be on a federal functionally classified route of a rural major collector or above, except for planning studies and enhancement projects. Skamania County selects and prioritizes projects for funding in cooperation with local agencies.

<u>Statewide Competitive:</u> Available to all public agencies. Criteria for selection include Multimodal, Innovation, Mobility, Economic Development, Environmental, Financial, Preservation, and Customer Sensitivity/Safety. The State selects and prioritizes projects for funding.

<u>Enhancements:</u> Available to all public agencies. For non-motorized transportation, beautification, scenic highways, pedestrian, and bike facilities. Projects are submitted and prioritized by the Regional Transportation Planning Organization. The State selects and prioritizes projects for funding.

<u>Safety:</u> Available for cities and counties, to improve safety. There are three programs under safety. First, Railway/Highway Crossings funds are available to reduce fatalities, injuries, and damages through improved railway crossings. Second, Hazard Elimination funds are available to improve specific locations which constitute a danger to vehicles or pedestrians as shown by frequency of accidents. Third, High Accident Potential funds are to reduce a potentially unsafe situation. The costs are shared approximately 90% federal and 10% local match. The State selects and prioritizes projects for funding.

<u>Rural Economic Vitality Program (REV):</u> Washington State Department of Transportation and the Community Economic Revitalization Board partner to implement the Rural Economic Vitality program. The program provides funds for traditional transportation improvements that benefit economic development in rural areas.

#### 3. Bridge Replacement and Rehabilitation Program

This program is continued from the earlier transportation authorization bill and is basically unchanged from previous years in its formula and requirements. This program provides funds to assist states in replacement and rehabilitation of deficient highway bridges and to seismic retrofit bridges on any public road. The funding level for the Bridge Program is \$20.4 billion nationwide and \$643 million statewide from 1998 through 2003. The state selects and prioritizes projects for funding, through the Bridge Replacement Advisory Committee (BRAC). The costs are shared approximately 80% federal and 20% local match.

#### 4. High Priority (Demonstration) Projects

ISTEA and TEA-21 provided funding for High Priority/Demonstration Projects throughout the nation as identified by Congress. TEA-21 includes 1,850 such projects costing a total of \$9.4 billion. The state of Washington will receive approximately \$199 million in High Priority funds during the life of TEA-21. High Priority/Demonstration funds have been used to make improvements along SR-14 in downtown Stevenson and the Cape Horn area. The costs are shared approximately 80% federal and 20% local match.

# 5. Intelligent Transportation System (ITS)

ISTEA funds are available to accelerate the implementation of Intelligent Transportation System (ITS) projects in metropolitan and rural areas. The program includes ITS Integration, ITS Commercial Vehicle Operations Deployment, and Overall ITS Deployment. ITS funds are for improvement of transportation efficiency, promotion of safety, traffic flow increase, reduction of air pollutant emissions, improvement of traveler information, enhancement of alternative transportation modes, further development of existing Intelligent Transportation System projects, and promotion of tourism. The ITS Integration Program was authorized for \$482 million nationwide in funding from 1998 through 2003, and the ITS Commercial Program was authorized for \$184.1 million nationwide. Federal ITS funding must not exceed 50% of the total project cost.

#### 6. Job Access and Reverse Commute (JARC)

A new federal program is Job Access and Reverse Commute (JARC) grants. The program is funded for FYs 1999-2003 with \$400 million from the Mass Transit Account. An additional \$350 million from the General Fund must be appropriated before it becomes available. The twofold purpose of the program is (1) to develop transportation services designed to transport welfare recipients and low-income individuals to and from jobs, and (2) to develop transportation services to suburban employment opportunities. Emphasis is placed on projects that use mass transportation services. Federal JARC funding must not exceed 50% of the total project cost.

#### 7. Community Development Block Grant

This program is through the Federal Department of Housing and Urban Development. Block grants are targeted for low and moderate-income areas. Transportation improvements usually consist of sidewalk and small capital improvements.

#### 8. Public Lands Highway Program

The intent of the Public Lands Highways Program is to improve access to and within the Federal lands of the nation. This program can be used for road improvements, transportation planning, parking, interpretive signage, acquisition of scenic easement and sites, pedestrian and bicycle facilities, rest areas, and other public road facilities. Roads need to be within, adjacent to, or provide access to Federal lands.

#### 9. Scenic Byways Program

This program can be used along designated scenic byways for safety improvements, enhancement projects, access to recreational areas, protection of adjacent highway resources, and providing tourist information. SR-14 in Skamania County has been designated as a scenic byway. This is a national competitive fund. In Washington State, the program is administered by WSDOT under the Heritage Corridors Program. The costs are shared approximately 80% federal and 20% local.

#### 10. National Scenic Area

Congress has the ability to appropriate additional funds to assist the National Scenic Area. Additional funds could potentially be used for transportation improvements.

#### State Funding

The State Gas Tax is the primary State source of highway maintenance and arterial construction funds:

# 1. Transportation Improvement Board (TIB)

The Transportation Improvement Board (TIB) administers several state funded grant programs. The mission the TIB is to assist local agencies to preserve and improve transportation systems. The following outlines the programs that TIB administers.

<u>Small City Program</u>: This program provides funding for street improvements in small cities (< 5,000 Population). The TIB small cities program requires a minimum 5% local match, except no match for cities with population under 500.

<u>Pedestrian, Safety & Mobility Program</u>: This program provides funding for pedestrian projects that enhance and promote pedestrian mobility and safety.

<u>Federal Funding Match</u>: TIB provides matching funds to projects awarded federal TEA-21 funds for eligible projects. TIB will typically provide funds from the Small City Program for the required 13.5% local match. In addition, TIB will provide matching funds for Bridge and FEMA/ER programs. The TIB funds are made available following approval of the federal funds.

### 2. County Road Administration Board (CRAB)

The County Road Administration Board was created by the Legislature in 1965 to provide statutory oversight of Washington's thirty-nine county road departments. The agency and the two grant programs they administer are funded from a portion of the counties' share of the State fuel tax.

Rural Arterial Program (RAP): This program provides funding for reconstruction of rural arterial roads. Proposed projects for this program are rated by a specific set of criteria including (1) structural ability to carry loads, (2) capacity to move traffic at reasonable speeds, (3) adequacy of alignment and related geometrics, (4) accident rates, and (5) fatal accident rates.

<u>County Arterial Preservation Program (CAPP)</u>: This program provides funding to assist counties in preserving their existing paved arterial road networks. Funding is provided to counties as direct allocation based on paved arterial lane miles.

### 3. Washington State Public Works Board

The Public Works Board was created by the 1985 legislature. The mission of this board is "to assist Washington's local governments and private water systems in meeting their public works needs to sustain livable communities." They loan money for public facilities, including roads and bridges.

<u>Public Works Trust Fund (PWTF)</u>: The Public Works Trust Fund has a pre-construction and a construction loan program. These loan programs provide funds for design work, engineering, permit acquisition, environmental review, right-of-way acquisition, and construction. These loans have a 5-year term for pre-construction and a 20-year term for construction with an interest rate of only one-half percent.

## 4. Community Economic Revitalization Board (CERB)

This fund was established by the legislature to make loans and/or grants for public facilities, including roads, which will stimulate investment and job opportunities, reduce unemployment, and foster economic development. The Department of Community Trade and Economic Development administer this program.

#### 5. Washington State Department of Transportation (WSDOT)

WSDOT administers many transportation related grants that are available to agencies. However, many of these programs are dependent on the legislature allocating funding. The following is a brief list of these programs.

<u>Airport Aid Grant Program</u>: The purpose of this program is to assist airports in funding capital improvement projects. Revenue for this program is collected through a 7-cent per gallon tax on general aviation fuel.

<u>Freight Rail Assistance Program</u>: The purpose of this program is to acquire, rehabilitate, or improve rail lines throughout the state, in order to preserve them for future use.

<u>Main Street Pavement Program</u>: The purpose of this program is to establish and promote an on-going pavement maintenance system in cities with a population under 10,000.

<u>Rural & Special Needs Public Transportation Program</u>: The purpose of this program is to fund capital and operating assistance for rural public transportation. This program combines both state and federal funds.

<u>School Safety Enhancements</u>: The purpose of this program is to fund capital projects for traffic and pedestrian safety improvements near schools.

### Local Funding

Local revenue comes from a variety of sources such as gas tax, property tax, permits, fees, and private development.

### 1. Local Gas Tax Revenue

This is the distribution of the state gasoline tax to the cities and counties based on each jurisdiction's population.

### **Revenue Allocations**

SHB 1928 requires the RTP be 'fiscally constrained' or "include a financial plan demonstrating how the regional transportation plan can be implemented, indicating resources from public and private sources that are reasonably expected to be made available to carry out the plan, and recommending any innovative financing techniques to finance needed facilities, services, and programs." There must be a balance between forecast revenues and costs of identified transportation system improvements. With limited revenues available for funding transportation improvements, the most cost-effective transportation solutions must be identified and selected.

Between 1990-1999, federal revenues comprise 52% of the anticipated transportation funds for the Skamania County region. State and local sources make up 45% and 3%, respectively, of total transportation revenues received in the Skamania County region. The percentage breakdown is somewhat different when jurisdictional authority of the projects receiving funding further delineates revenues.

The local dollars available for transportation improvements within Skamania County have largely diminished since the early 1980's. As timber sales within the National Forest have been reduced, the sales revenue received by Skamania County and the Forest Service have decreased. This affects Skamania County and the Forest Service's ability to fund maintenance, preservation, and improvements to the regional transportation system. At the same time, the public use of the regional transportation system is increasing.

The financial analysis presented in the RTP assumes revenues and costs in 2002 dollars. This method has advantages in that the methodology is straight forward, but has drawbacks in that inflation is not considered in the analysis. However, the inflation factor has an impact on both the revenue and cost sides of the equation. On the revenues side, gas taxes do not keep pace with inflation. On the project cost side, the longer a project is deferred the more expensive it will be. Another problem that the transportation sector faces is that although the federal government authorizes transportation dollars at a certain level, the actual appropriation for their use is at a lower level.

# **Projected Transportation Revenue**

Projected revenues for the regional transportation system were calculated in order to determine the level of funding available to meet RTP project needs. Revenue projections were calculated using current funding levels under federal, state, and local revenues. 1990-99 transportation revenues were then extrapolated, based on the current trend, and factored by the number of years out to the RTP forecast year of 2025. Table 4-1 contains projected transportation revenues for the regional transportation system, by federal, state, and local funding sources.

Table 4-1

TIP Projected Revenue				
	TIP Average	20 Years		
Federal	\$2,010,000	\$46,230,000		
State	\$1,739,500	\$40,008,500		
Local	\$116,000	\$2,668,000		
TOTAL	\$3,865,500	\$88,906,500		

## **CHAPTER FIVE**

#### SYSTEM IMPROVEMENT AND STRATEGY PLAN

#### Overview

This chapter summarizes the solutions and strategies needed to provide an adequate level of regional mobility over the next 20 years. A wide range of solutions and strategies are needed to meet the regional travel demand. There are strategies to address the travel demand side as well as transportation system supply side, and strategies to increase the efficiency of the existing regional transportation system as well as strategies to provide for a safer transportation system. The solutions and strategies outlined in this chapter will provide Skamania County residents with a well-maintained, structurally sound, safe regional transportation system. In developing a balanced regional transportation system, it is not only capacity and safety deficiencies that must be addressed but also preservation and maintenance of the existing regional transportation system. This chapter concludes with a prioritized list of transportation system improvements.

The solutions and strategies for the Skamania County regional transportation system have been divided into subheadings. *Maintenance* is the daily operations that keep the transportation system safe, clean, and efficient. *Preservation* is an investment that prolongs the life of the transportation system. *Improvements* are modifications that increase the safety, mobility, and effectiveness of the transportation system. *Miscellaneous* includes specific improvements which may be included under one of the other subheadings or is tied to a specific funding source, thus no cost estimate is provided for these strategies.

### **Maintenance**

Of prime importance in the planning for the regional transportation system is the need to maintain the existing system. Maintenance will address the day-to-day activities needed to keep the transportation system in good working order; daily operations that keep the system safe, clean, reliable and efficient. Such activities include filling potholes, repairing bridges, repairing drainage ditches, repairing guardrails, replacing damaged signs, plowing snow, removing rocks, and efficiently operating traffic signals. The Washington State Department of Transportation (WSDOT) and local jurisdictions monitor the condition and operation of the existing system and program projects to maintain the system. The RTP supports the routine, regularly-scheduled, and necessary maintenance work identified by local jurisdictions. The RTP supports maintenance being given high priority in the programming of transportation funds. The estimated 20 year public maintenance cost for the regional transportation system is \$39.2 million.

### **Preservation**

Preservation of the existing regional transportation system is also important to protect the heavy investments already made in the system. Preservation can prolong the life of the existing transportation system through such projects as repaving roads, rehabilitating bridges, and rock fall protection. Preservation needs are identified through a Pavement Management System (PMS), Bridge Management System, and local needs analysis. The RTP is supportive of giving

prime consideration to such project needs. The estimated 20 year public preservation cost for the regional transportation system is \$41.8 million.

# **Improvements**

In addition, the Regional Transportation Plan recommends transportation improvements needed to provide an adequate level of safety and regional mobility for the anticipated growth in travel demand. Improvements should be related to an identified deficiency, as identified in Chapter 3 (safety, capacity, economic development, non-motorized mode, and bridge). Improvements would include adding lanes, removing a dangerous curve, adding rest areas, adding scenic vistas, improving sight distance, adding a climbing lane, realignment of a roadway, and adding alternative modes of transportation. The estimated 20 year improvement cost is \$54.9 million.

# **Miscellaneous Strategies and Solutions**

The RTP supports strategies for bridges, safety, economic development, non-motorized modes, and transit which will support the mobility of people and goods within Skamania County

## **Bridge Deficiencies**

Maintenance, preservation, and replacement projects required on bridges are identified through the Bridge Management System (BMS) administered by WSDOT.

## Safety Deficiencies

Accidents and their number, location, and type are monitored by WSDOT and local jurisdictions. If there is deemed to be a safety deficiency, then remedial measures are considered and corrective action taken.

# Economic Development and Freight Transportation Deficiencies

The prosperity of a region is dependent on the provision of transportation infrastructure to support economic development. Economic development emerged as a prime evaluation criteria for prioritizing projects for the Regional Transportation Plan.

WSDOT has adopted a Statewide Freight and Goods Transportation System, which categorizes highways and local roads according to the tonnage of freight they carry. Washington State also created the Freight Mobility Strategic Investment Board (FMSIB) with a mission to create a comprehensive and coordinated state program to facilitate freight movement between and among local, national, and international markets which enhances trade opportunities.

The Washington State Legislature has defined the purpose of the state's freight rail program and planning activities and established a comprehensive freight rail policy. This policy directs WSDOT to maintain and improve the state freight rail system through better freight rail planning, better cooperation to preserve rail lines, and increased financial assistance from the state.

Washington and Oregon have identified the deepening of the lower Columbia River channel to 43 feet as essential for the movement of freight. This improvement will help keep the region economically competitive in the future.

## Non-Motorized Transportation Deficiencies

The development of non-motorized transportation modes is a strategy that will maximize the capacity of the existing transportation system in urban areas. Reduced reliance on automobiles is largely dependent on the development of adequate sidewalks and bikeways. Pedestrian and bicycle needs are most appropriately identified at the local level.

Transportation demand management (TDM) strategies to reduce vehicle trips on the regional transportation system can include use of transit, carpooling, vanpooling, working of flex-hours and/or compressed work week, and working from home with use of communications technology.

Transportation system management (TSM) is also a strategy to maximize the efficiency of the existing transportation system. TSM measures include a wide range of strategies, most of which are related to the use of intelligent transportation systems. These include incident response programs, programs to monitor travel conditions (weather/congestion), variable message signage to alert motorist of travel conditions, improved communication means, and Intelligent Vehicle/Highway Systems. Other TSM elements include minor capital upgrades such as channelization at traffic intersections.

### **Transit Deficiencies**

Transit is important in meeting the mobility needs of the transit dependent; those unable to drive automobiles because of age, infirmity, disability, or low income. Transit can also meet the mobility needs for commute trips to and from employment centers.

#### Conclusion

The RTP provides for strategies and solutions to meet regional travel demand and to develop a balanced regional transportation system over the 20-year planning period. Projects are identified in the RTP and then programmed in the local Transportation Improvement Program. Table 5-1 provides a listing of needed improvements for the regional transportation system. This table includes a list of projects for which regional need has been identified and for which there is strong regional commitment. The list focuses on safety improvements since these are the projects that are most readily needed. The list also identifies a wide range of transportation system improvements that will contribute to the development of a balanced regional transportation system.

A prioritization process helps the region to make most effective use of limited transportation funding to meet transportation system improvement needs. The projects listed in Table 5-1 were prioritized based on the regional prioritization process. The following key issues were considered in the prioritization process: 1) Safety, 2) Economic Development, 3) Congestion, 4) Connectivity, 5) Support, and 6) Cost/Funding.

Table 5-1

	Skamania County Transportation Improvements						
Rank	Facility	Location	Mile Post	Description	(Millions) Cost		
A	SR-14	Downtown Stevenson	44.0-44.6	Downtown Enhancements	Funded		
1	SR-14	Marble Rd. to Salmon Falls Rd.	22.7-26.4	EB climbing lane, turn pocket, realignment of curves	\$4.7		
2	SR-14	Skamania Landing Rd. to Beacon Rock State Park	33.2-34.8	Realignment, widen shoulders, rockfall protection	\$4.7		
3	SR-14	Hot Spring Way/Dam Access	38.5	Intersection Improvements	\$0.5		
4	SR-14	East of Stevenson to Carson	44.9-48.1	Realignment, widen shoulders, rockfall	\$1.2		
5	SR-14	Countywide Rockfall	21.7-63.5	Rockfall protection	\$18.2		
6	SR-14	Tunnels 1-5	58.0-60.2	Lower grade 6", ITS	\$2.1		
7	SR-14	Half Bridge to Prindle Rd.	24.9-27.9	Extend WB climbing lane	\$4.4		
8	SR-14	Wind River Rd. or Hot Spring Ave. Intersection	47.5/49.3	Improve access from WB SR- 14 to accommodate trucks	\$0.5		
9	SR-14	County Wide	21.7-63.5	Widen shoulder to 4'	\$14.2		
10	SR-14	East of Smith-Cripe Rd.	30.1-30.7	Realignment	\$1.8		
11	SR-14	East of Half Bridge	24.0-24.8	Westbound climbing lane	\$2.4		
12	SR-14	Cook-Underwood Rd. Int.	63.32	Intersection improvements	\$0.2		
Total					\$54.9		

There are insufficient resources within the region to meet the maintenance, preservation, and improvement needs of the regional transportation system. If additional resources are not obtained, there will be inadequate funds for transportation improvements. The revenue shortfall is illustrated in Figure 5-1.

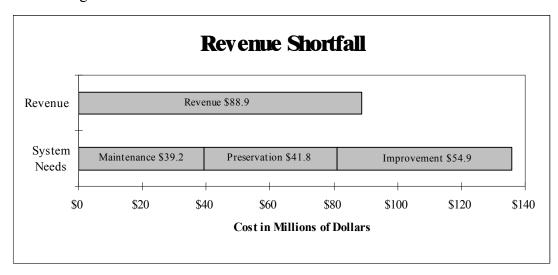


Figure 5-1

## **CHAPTER SIX**

#### PERFORMANCE MONITORING

## **Overview**

The transportation planning process requires that monitoring of system performance takes place. Monitoring of the regional transportation system's performance is an ongoing activity, which at a minimum, will occur as part of the review of the Regional Transportation Plan (RTP). The RTP must be reviewed at least every two years. Several elements of system monitoring activities are described below.

## Safety

Monitoring of accident rates and rockfall is an ongoing activity of the regional transportation system. Accident data will be collected and studied based on a three year accident rate as part of each RTP review. The accident rates will be used to identify the performance of the transportation system by identifying deficient road segments. High accident locations will be used as a tool for identifying improvement strategies to alleviate a safety problem.

In addition, WSDOT will monitor rockfall. Future updates of the RTP will contain the most recent rockfall information. Rockfall locations will be used as a tool for prioritizing rockfall improvements.

# **Capacity Analysis**

Traffic volumes will be used as a tool for monitoring traffic congestion and for identifying improvement strategies to alleviate the congestion. The Highway Capacity Software will be used to analyze the level of service along the regional transportation network. Deficient segments will be analyzed to identify improvement strategies to alleviate congestion.

### **Preservation and Maintenance**

Local, regional, and state tools are being used to monitor preservation and maintenance needs. Washington State has developed a Bridge Management System and Pavement Management System to identify deficient conditions along roadways and bridges. These tools along with other tools are ongoing activities which monitor preservation and maintenance needs of the regional transportation system.

# **Special Studies**

Local and state studies and plans are occasionally undertaken which monitor the performance of the transportation system. As these special studies or plans are completed, the associated information will be included in the next update of the Regional Transportation Plan.

## **CHAPTER SEVEN**

PLAN DEVELOPMENT AND IMPLEMENTATION

# **Public Involvement in Regional Transportation Planning Process**

Southwest Washington Regional Transportation Council (RTC) has an adopted public involvement program outlining the public involvement efforts in the development of regional transportation plans and programs. Copies of the public involvement program are available from RTC's Web site or office. All RTC Board meetings and the Skamania County Transportation Policy Committee meetings are open to the public. Public involvement efforts build from those carried out at the local level in development of local plans and programming of transportation projects.

A public meeting is held before the adoption of the Skamania County Regional Transportation Plan. Amendments to the RTP are presented to both the Skamania County Transportation Policy Committee and the RTC Board of Directors for their consideration and adoption. Transportation issues, studies, plans, and programs are outlined and reported on RTC's web site at http://www.rtc.wa.gov.

## **RTP Implementation**

Implementation of regional transportation goals, policies, and actions established by the Skamania County Regional Transportation Plan (RTP) are carried forward through a local and regional decision-making process. Through the local development of a Transportation Improvement Program (TIP), transportation needs identified in the RTP are programmed for receipt of funds. In addition, projects along SR-14 inside the Columbia River Gorge National Scenic Area will be consistent with the SR-14 Corridor Management Plan.

# **RTP Update Process**

The RTP is to be reviewed at least every two years. Should changing policies, financial conditions, or growth patterns warrant, an RTP amendment can take place.

The first RTP for Skamania County was adopted in April 1995. An RTP update was adopted in April 1998. The 2003 RTP update provides a new base year of 2000, incorporates newly-available 2000 U.S. Census data, extends the horizon year of the RTP to 2025, and incorporates changes to the regional transportation system.

Results and recommendations from transportation studies underway will be incorporated into future RTP updates. The next major update to the RTP is anticipated in 2005.



# **Glossary**

ABBREVIATION	DESCRIPTION	

ADT Average Daily Traffic

BNSF Burlington Northern Santa Fe Railroad

BMS Bridge Management System

BRAC Bridge Replacement Advisory Committee
CAPP County Arterial Preservation Program
CERB Community Economic Revitalization Board

CMS Congestion Management System
CRAB County Road Administration Board

FMSIB Freight Mobility Strategic Investment Board

GMA Growth Management Act HCM Highway Capacity Manual HSP State Highway System Plan

HSS Highways of Statewide Significance

ISTEA Intermodal Surface Transportation Efficiency Act (1991)

ITS Intelligent Transportation System

JARC Job Access and Reverse Commute Grant

LOS Level of Service

Management Plan Management Plan for the Columbia River National Scenic Area

MPO Metropolitan Planning Organization
MUTCD Manual on Uniform Traffic Control Devices

MVET Motor Vehicle Excise Tax NHS National Highway System

OFM Washington State's Office of Financial Management

Scenic Area Columbia River Gorge National Scenic Area

NHS National Highway System

OFM Washington Office of Financial Management

PMS Pavement Management System
PWTF Public Works Trust Fund
RAP Rural Arterial Program

REV Rural Economic Vitality Program

ROW Right of Way

RTC Southwest Washington Regional Transportation Council

RTP Regional Transportation Plan

RTPO Regional Transportation Planning Organization

SR- State Route

STP Surface Transportation Program
TDM Transportation Demand Management

TEA-21 Transportation Equity Act for the 21<sup>st</sup> Century

TIB Transportation Improvement Board
TIP Transportation Improvement Program

VMT Vehicle Miles Traveled

WAC Washington Administrative Code

WSDOT Washington State Department of Transportation

WTP Washington Transportation Plan

