Metropolitan Transportation Plan for Clark County

2011 Update

Southwest Washington Regional Transportation Council

RTC

Metropolitan Transportation Plan for Clark County

- Clark County
- Skamania County
- Klickitat County
- City of Vancouver
- City of Camas
- City of Washougal
- City of Battle Ground
- City of Ridgefield
- City of La Center
- Town of Yacolt
- City of Stevenson
- City of North Bonneville
- City of White Salmon
- City of Bingen
- City of Goldendale
- C-TRAN
- Washington DOT
- Port of Vancouver
- Port of Camas-Washougal
- Port of Ridgefield
- Port of Skamania County
- Port of Klickitat
- Metro
- Oregon DOT
- 15th Legislative District
- 17th Legislative District
- 18th Legislative District
- 49th Legislative District

Adopted: December 6, 2011
RTC Board Resolution 12-11-23

Southwest Washington Regional Transportation Council

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Preparation of this Plan was funded by grants from the Washington State Department of Transportation, U.S. Department of Transportation (Federal Highways Administration and Federal Transit Administration) and local funds from RTC member jurisdictions.

The policies, findings, and recommendations contained in this Plan do not necessarily represent the views of the state and federal agencies identified above and do not obligate those agencies to provide funding to implement the contents of the Plan as adopted.

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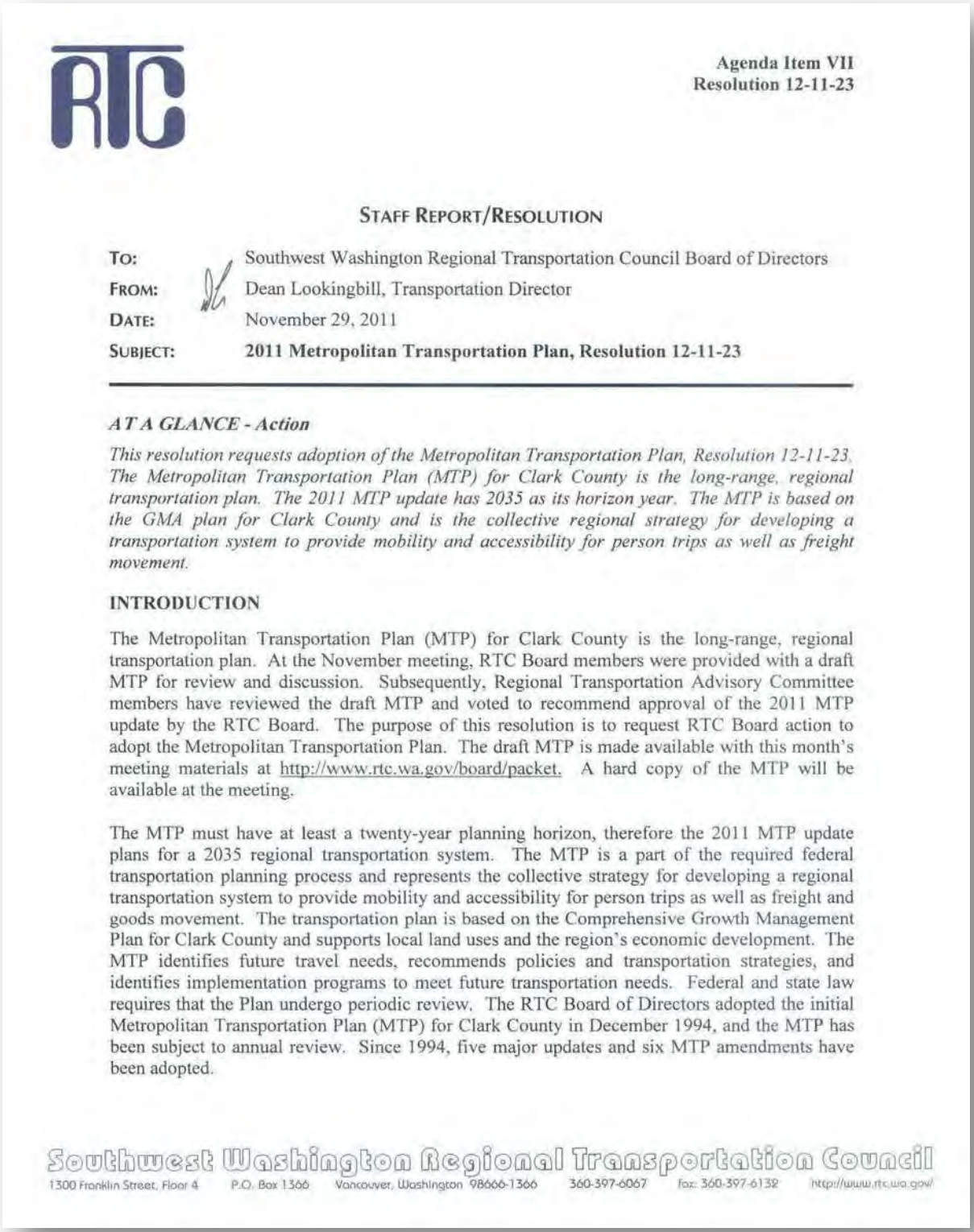

RTC

Agenda Item VII
Resolution 12-11-23

STAFF REPORT/RESOLUTION

TO: Southwest Washington Regional Transportation Council Board of Directors
FROM: Dean Lookingbill, Transportation Director
DATE: November 29, 2011
SUBJECT: **2011 Metropolitan Transportation Plan, Resolution 12-11-23**

AT A GLANCE - Action

This resolution requests adoption of the Metropolitan Transportation Plan, Resolution 12-11-23. The Metropolitan Transportation Plan (MTP) for Clark County is the long-range, regional transportation plan. The 2011 MTP update has 2035 as its horizon year. The MTP is based on the GMA plan for Clark County and is the collective regional strategy for developing a transportation system to provide mobility and accessibility for person trips as well as freight movement.

INTRODUCTION

The Metropolitan Transportation Plan (MTP) for Clark County is the long-range, regional transportation plan. At the November meeting, RTC Board members were provided with a draft MTP for review and discussion. Subsequently, Regional Transportation Advisory Committee members have reviewed the draft MTP and voted to recommend approval of the 2011 MTP update by the RTC Board. The purpose of this resolution is to request RTC Board action to adopt the Metropolitan Transportation Plan. The draft MTP is made available with this month's meeting materials at http://www.rtc.wa.gov/board/packet. A hard copy of the MTP will be available at the meeting.

The MTP must have at least a twenty-year planning horizon, therefore the 2011 MTP update plans for a 2035 regional transportation system. The MTP is a part of the required federal transportation planning process and represents the collective strategy for developing a regional transportation system to provide mobility and accessibility for person trips as well as freight and goods movement. The transportation plan is based on the Comprehensive Growth Management Plan for Clark County and supports local land uses and the region's economic development. The MTP identifies future travel needs, recommends policies and transportation strategies, and identifies implementation programs to meet future transportation needs. Federal and state law requires that the Plan undergo periodic review. The RTC Board of Directors adopted the initial Metropolitan Transportation Plan (MTP) for Clark County in December 1994, and the MTP has been subject to annual review. Since 1994, five major updates and six MTP amendments have been adopted.

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Elements of the MTP update have been presented to the RTC Board for review and discussion during the course of the past year. The 2011 MTP update focuses on continuing compliance with the current federal transportation act, SAFETEA-LU. It also focuses on consistency between state, regional, and local plans with projects from state and local plans incorporated into the MTP.

Key elements of the MTP that have been reviewed during 2011 are listed below:

- MTP Framework, Purpose and Goals (Chapter 1)
- 2035 Horizon Year and Demographic Forecast (Chapter 2)
- 2035 Travel Demand Forecast (Chapter 3)
- Designated Regional Transportation System (Chapter 3)
- Regional Transportation System Needs, Projects & Strategies (Chapters 3, 5 and Appendix B)
- Financial Plan (Chapter 4)
- Safety Assessment (Chapter 5)
- Modal Elements, including freight, transit, pedestrian and bicycle (Chapter 5)
- Determination of Conformity with Air Quality State Implementation Plan (SIP) (Appendix C)

The MTP is developed with technical review and input provided by the Regional Transportation Advisory Committee (RTAC) and policy review provided by the RTC Board of Directors. The Regional Transportation Advisory Committee (RTAC) reviewed the draft 2011 Metropolitan Transportation Plan update at its November 18, 2011 meeting and has recommended adoption by the RTC Board of Directors. RTC Board action on this Resolution will complete the federally-required MTP update process for RTC. The adopted MTP will be forwarded to WSDOT, the Federal Highway Administration, and Federal Transit Administration.

Throughout the MTP update process, opportunities for public participation were available. Public participation in regional transportation planning builds from local efforts. During 2011, public participation has included transportation meetings hosted by C-TRAN, the Columbia River Crossing project and by WSDOT on specific projects such as the SR-14 and SR-500 corridor projects. Local jurisdictions have included meetings on transportation concurrency and on Aging Readiness.

Monthly meetings of the RTC Board of Directors allow the public to comment on regional transportation issues in a formal setting. All comments at these meetings become part of the meeting record. The MTP update has been a regular agenda item at many of the RTC Board meetings during 2011. MTP information and RTC Board materials on the MTP were made available through RTC's website at www.rtc.wa.gov. The public was also able to provide MTP

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comments to RTC via e-mail, phone or mail. RTC staff sent regular updates on the MTP's development to Clark County and Vancouver neighborhood coordinators and kept small cities informed through their Regional Transportation Advisory Committee representatives. Public participation opportunities included five open houses held throughout the year and a November 16 public meeting held at the Vancouver Community Library.

POLICY IMPLICATION

The MTP represents the framework plan and policies for development of the regional transportation system. Projects must first be identified in the MTP before they can be programmed for federal funding in the Metropolitan Transportation Improvement Program (MTIP).

Air quality policies and laws require consultation between RTC and resource agencies as the MTP is developed. On November 8, 2011, staff from the Environmental Protection Agency (EPA), Federal Highway Administration, and State Departments of Ecology and Transportation consulted with RTC on the air quality conformity section of the MTP. Given the Clark County region's air quality status, "unclassifiable/attainment" for Ozone and "Maintenance Area" for Carbon Monoxide (CO), the region no longer has to carry out regional air quality conformity analysis. However, the MTP needs to include a determination of air quality conformity with the State's Air Quality State Implementation Plan (SIP). This air quality conformity determination is documented in Chapter 5 of the MTP and in more detail in Appendix C. Action by the RTC Board to adopt the MTP affirms the air quality conformity determination.

In turn, the Metropolitan Transportation Improvement Program (MTIP) must be based on an air quality conforming Metropolitan Transportation Plan, therefore action to adopt the 2011 MTP update also re-adopts the 2012-2015 MTIP to ensure the MTIP is based on this conforming MTP update. The 2012-2015 MTIP was originally adopted by the RTC Board in October 2011.

RTC works in coordination with WSDOT, C-TRAN, and local jurisdictions as state and transit plans are developed and as the transportation elements of local comprehensive plans are updated. This close coordination helps to ensure consistency between state, regional, and local plans. RTC, as the Regional Transportation Planning Organization (RTPO), must certify that there is consistency between the MTP and the transportation elements of local comprehensive plans required under the Growth Management Act (GMA) and that the transportation elements conform with the GMA's requirements.

MTP development is anticipated in 2012 with focus on transportation system monitoring, on 10-year transportation system priorities and on modal elements of the MTP.

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BUDGET IMPLICATION

Regular update and amendment of the adopted MTP is a requirement for the receipt of federal transportation funds. Federal regulations require that the MTP contain a financial plan that demonstrates consistency between proposed transportation investments and available and projected revenues. One of the key federal requirements of an MTP is that it be "fiscally constrained" meaning there should be a reasonable expectation that revenues will be available to provide for the list of projects and transportation strategies contained in the MTP and to support the operations and maintenance of a safe, multimodal, transportation system. The MTP's financial plan is in Chapter 4. Year of expenditure is addressed in Appendix E. Based on analysis of forecast revenues and cost estimates for operations, maintenance, projects, and strategies, the 2011 MTP update appears to meet the federal requirement for "fiscal constraint".

ACTION REQUESTED

Adoption of Resolution 12-11-23, "2011 Metropolitan Transportation Plan and re-adoption of 2012-2015 Metropolitan Transportation Improvement Program MTIP Update."

ADOPTED this 6th day of December 2011, by the Southwest Washington Regional Transportation Council.

SOUTHWEST WASHINGTON
REGIONAL TRANSPORTATION COUNCIL

Jack Burkman
Chair of the Board

ATTEST:

Dean Lookingbill
Transportation Director

Attachment

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Chapter 1: Introduction – MTP Vision, Purpose and Goals

2035 is the horizon year for the 2011 MTP update.

The Metropolitan Transportation Plan (MTP) for Clark County is the region's principal transportation planning document. It represents a coordinated planning process between local jurisdictions to develop regional solutions to transportation needs. The first *Regional Transportation Plan* (RTP) for Clark County was adopted in December 1982. An *Interim Regional Transportation Plan*, which acted as a framework for development of Growth Management Act (GMA) transportation elements, was adopted in September 1993. The first MTP for Clark County to comply with the requirements of the federal Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 was adopted in December 1994. Since then, the MTP has been updated regularly.

The 2011 update to the MTP has 2035 as the Plan's horizon year and is compliant with the requirements of the current federal transportation act, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) of 2005. The MTP update continues to support land uses and growth allocations resulting from the September 2007 update to the local Comprehensive Growth Management Plan. The MTP also includes updated transportation data and recommendations from recent transportation studies.

The MTP provides an overview of the metropolitan transportation planning process and is intended to be a plan to meet transportation needs over the next 20-plus years. This introductory chapter presents the basis for the MTP; its vision, purpose, and goals. A brief overview of the MTP's scope, statutory requirements and decision-making process is also provided.

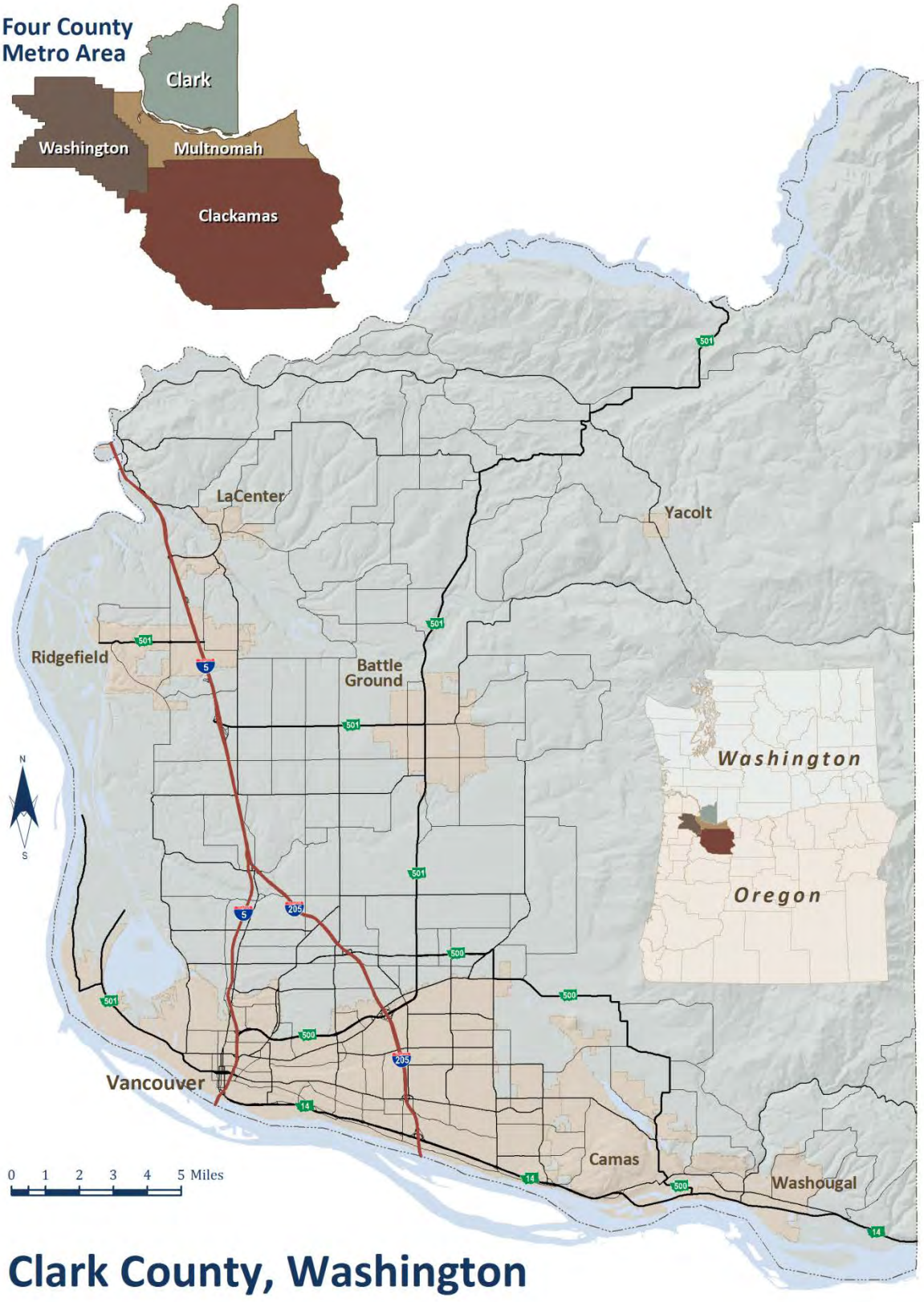
MTP 2011 Update: An Overview

The Metropolitan Transportation Plan for Clark County covers the Metropolitan Planning Organization (MPO) region served by Southwest Washington Regional Transportation Council (RTC).

The MTP is based upon past, current and emerging trends. The 2011 MTP update has been developed in a time of transition and economic uncertainty resulting in what is likely to be a new and unprecedented set of transportation challenges for our region. This time of transition and challenges influences the tone of the 2011 MTP update. On the whole, the 2011 MTP update does not diverge too greatly from the 2007 Plan and its subsequent amendments. It continues an optimistic growth forecast over the 20-plus years of the Plan and is developed to support locally-adopted comprehensive plans. However, emerging demographic and economic trends are identified in this MTP update that will need to be tracked and revisited as these trends become clearer. Where the Plan can identify these uncertainties and emerging issues, these will be tracked over time and any necessary changes incorporated into an MTP amendment or into the subsequent MTP update due within four years. Examples of these new challenges include the following:

- How transit service and Transportation System Management and Operations strategies can address needs in transportation corridors that are built-out;
- How to improve access to transit;
- How to connect missing links in the pedestrian and bicycle system;
- How to fund critical links in the region's transportation system, especially where bottlenecks exist; and
- How to fund transportation system programs, projects and missing links.

Figure 1-1: Clark County, Washington, location map



Key MTP policy themes include:

Economy

Safety and Security

Accessibility and Mobility

Management and Operations

Environment

Vision and Values

Finance

Preservation

MTP Vision and Goals

One of the first considerations in developing a transportation plan is to decide on an overall vision for the Plan. The Vision Statement provides a concise look forward to the important outcomes the MTP's implementation should lead us toward. The MTP Goals then guide the region toward development of the Plan and attainment of the Vision. The Vision and Goals are outlined below.

MTP Vision Statement

In 2035, the Clark County region is a vibrant community with centers of commerce, business and industrial activity and safe neighborhoods that promotes livability and helps to achieve broad community goals for its residents. The region is served by an integrated transportation system that balances modal needs while providing mobility and access to support the region's growing prosperity and protecting the environment. The transportation system is funded with sustainable levels of revenue.

MTP Goals

There needs to be consistency between federal, state, regional and local transportation plans so they are not at odds. The consistency requirement also applies to goals and policies. In determining policy goals for the MTP update, a review of key themes and issues in federal, state, regional and local laws, codes and plans was carried out. The basic transportation policy framework at all four levels of governance (federal, state, region and local) focuses on these key policy themes: Economy, Safety and Security, Accessibility and Mobility, Environment, Efficiencies, Management and Operations, Preservation, Finance, Vision and Values. These key policy themes are reflected in the Goals established for this region's MTP (see below).

Economy (outcome)

Support economic development and community vitality.

Safety and Security (outcome)

Ensure safety and security of the transportation system.

Accessibility and Mobility (outcome)

Provide reliable mobility for personal travel and freight movement as well as access to locations throughout the region and integrity of neighborhoods accomplished through development of an efficient, balanced, multi-modal regional transportation system.

Management and Operations (strategy)

Maximize efficient management and operation of the transportation system through transportation demand management and transportation system management strategies.

Environment (outcome)

Protect environmental quality and natural resources and promote energy efficiency

Vision and Values (outcome)

Ensure the MTP reflects community values to help build and sustain a healthy, livable, and prosperous community

Finance (strategy)

Provide a financially-viable and sustainable transportation system

Preservation (strategy)

Maintain and preserve the regional transportation system to ensure system investments are protected

MTP Framework

Development of the transportation system is one component required to support the land uses defined in local Comprehensive Growth Management Plans and the forecast population and employment growth. The MTP is a collective effort to address the development of a regional transportation system that will help to achieve the land use vision presented in the local comprehensive plans, to support planned economic growth and help sustain the region's quality of life.

Purpose

The MTP identifies future regional transportation system needs and outlines transportation plans and improvements necessary to maintain mobility within and through the region as well as access to land uses within the region. The MTP is one of the reports needed to fulfill federal requirements to ensure the continued receipt of federal transportation funding to this region.

The transportation system is multi-modal and includes the region's highway system for transportation of people and freight, the transit system, pedestrian and bicycle system, as well as ports, airports and rail facilities of regional significance. The MTP's goals, objectives and policies help to guide jurisdictions and agencies involved in planning and programming of transportation projects throughout Clark County.

Scope

The MTP for Clark County takes year 2035 as its horizon year. Travel demand for the region is forecast for this future year and improvements to the transportation system are recommended based on the projected travel demand.

The area covered by the MTP is the whole of Clark County (see Figure 1-1). Clark County is located in the southwestern part of the state of Washington at the head of the navigable portion of the Columbia River. Urban Clark County is part of the northeast quadrant of the Portland-Vancouver-Hillsboro, OR-WA metropolitan area.

Transportation Issues Highlighted in the 2011 MTP Update

- Year 2035 demographic and travel demand forecast
- Changing demographics and lifestyles
- System preservation
- Safety of the transportation system
- Transportation system management and operations
- Active transportation
- Freight mobility
- Greenhouse gas reduction
- Transportation system needs, projects and strategies
- Financial plan

Federal regulations require that a designated MPO be the forum for cooperative decision-making.

Statutory Requirements

The following section briefly describes federal and Washington state statutory requirements that direct development of the MTP.

Federal

The MTP must meet federal planning requirements and comply with provisions set forth in the current Federal Transportation Act, SAFETEA-LU, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users. The MTP must also meet requirements of the Clean Air Act, the Americans with Disabilities Act, Title VI of the Civil Rights Act of 1964 and Executive Order 12898, a 1994 Presidential Order that directs every federal agency to make environmental justice a part of its mission. SAFETEA-LU requires that eight planning factors are addressed as part of the metropolitan planning process. The growing importance of operating and managing the transportation system is recognized and there is an increased recognition of the importance of security of the transportation system. The eight planning factors are listed in Chapter 6.

The joint Federal Highways Administration (FHWA) and Federal Transit Administration (FTA) regulations require that, as a condition for receiving federal transportation funding, urbanized areas with over 50,000 population establish a "continuing, cooperative, and comprehensive transportation planning process." The process should result in transportation plans and programs that are consistent with the comprehensive land use plans of all jurisdictions within the region.

Federal regulations require that a designated **Metropolitan Planning Organization** (MPO) be the forum for cooperative decision-making by principal elected officials of the region's general purpose local governments. Southwest Washington Regional Transportation Council (RTC) was designated as the Metropolitan Planning Organization (MPO) for Clark County by agreement of the Governor of the State of Washington and units of general purpose local governments (representing at least 75 percent of the affected population, including the central cities) on July 8th of 1992. With passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, Clark County became a federally-designated **Transportation Management Area** (TMA).

The MTP should consist of short- and long-range strategies to address transportation needs and should guide effective investments to enhance transportation system

efficiency. The transportation plan must be consistent with the region's comprehensive long-range, land use plans and development objectives as well as the region's overall social, economic, environmental, system performance, and energy conservation goals and objectives.

State

State legislation of significance in regional transportation planning includes the Growth Management Act (1990), High Capacity Transit legislation (1990), the Clean Air Washington Act (1991), and the Commute Trip Reduction law (1991).

Within Washington State, Metropolitan Transportation Plans are expected to be consistent with the policy framework and objectives described in the transportation plan for Washington State. The most recent Washington Transportation Plan WTP 2030 was developed by the Washington Transportation Commission and adopted in December 2010. The WTP is based on five transportation policy goals established by the Legislature: Economic Vitality, Preservation, Safety, Mobility, Environment and Stewardship.

The Washington State Highway System Plan (HSP) is the element of Washington's Transportation Plan (WTP) that addresses current and forecast state highway needs. The HSP includes a comprehensive assessment of existing and projected 20-year deficiencies on the state's highway system. It also lists potential solutions that address these deficiencies. The current 2007-2026 version of the HSP takes the WTP's investment guidelines and identifies the highway system needs, strategies and performance measurements associated with the guidelines.

Washington State's Regional Transportation Planning Program

Regional Transportation Planning Organizations (RTPOs)

Washington State's Growth Management Act, enacted in 1990, approved the Regional Transportation Planning Program which created a formal mechanism for local governments and the state 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 clarified the duties of the RTPO outlined in the GMA and further defined RTPO planning standards.

The Regional Transportation Planning Program is designed to be integrated with, and augment, the federally-required Metropolitan Planning Organization (MPO) Program. The Regional Transportation Planning Program is intended to tie in and be consistent with local comprehensive planning in urban and rural areas.

The RTC Board provides the forum for guiding future transportation system investment decisions.

MTP Decision-Making Process

The MTP needs to identify solutions to transportation issues and problems that jurisdictions agree with and can successfully implement. To enable the regional transportation planning process, the regional transportation planning committee structure is established. Committees are established by RTC to carry out MPO/RTPO activities and to strengthen the process of MTP development. These Committees include the RTC Board of Directors, the Clark County Regional Transportation Advisory Committee (RTAC), the Skamania County Transportation Policy Committee and the Klickitat County Transportation Policy Committee. Representation on the RTC Board of Directors and individual County Policy Boards and Committees is described in the *Bylaws of Southwest Washington Regional Transportation Council* (last amended November 2010) and *Interlocal Agreement for Establishment of the Southwest Washington Regional Transportation Council*.

RTC Board of Directors

Consistent with the 1990 GMA legislation, a three-county RTC Board of Directors is established and meets monthly to serve the RTPO region. The RTC Board is the governing body that takes action to adopt the MTP.

Regional Transportation Advisory Committee (Clark County)

For Clark County, the Regional Transportation Advisory Committee (RTAC) provides technical advice to the RTC Board of Directors.

Emerging Issues to Track

The Metropolitan Transportation Plan must comply with federal and state laws and must maintain consistency between federal, state and local plans. Relating to the MTP's development, including its vision, purpose and goals, RTC should be prepared to respond to changing laws and guidance including:

- Readiness to respond to an updated Federal Transportation Act when enacted.
- Washington State's Department of Commerce provides a guide to local communities regarding implementation of the state's Growth Management Act. The Department of Commerce is currently updating Your Community's Transportation System: A Transportation Element Guide (first published, 1993). Once the guide update is complete, it can be used as guidance for update of local transportation elements as well as resource for subsequent MTP updates.

Chapter 2: Transportation – It's all about Land Uses and People

Transportation planning is about meeting the travel demands of people and goods. The transportation system must connect people to jobs and services and connect freight and goods to markets and consumers. This chapter describes trends in Clark County demographics and land uses, and the transportation challenges posed by these trends. Development of a transportation policy plan to provide for mobility of people, freight and goods has to consider how to plan for a transportation system that can support travel demand increases as a result of anticipated growth in population and employment. At the same time, the transportation system has to be affordable and avoid environmental impacts to maintain the quality of life enjoyed in the Clark County region.

Growth and Development

Sustained economic development and growth within a region can be 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, the impacts of the growth must be addressed which includes ensuring that needed infrastructure and services are provided to serve the community. If transportation infrastructure and services do not keep pace with the growth, then worsening levels of traffic congestion, decline in air quality, and overall degradation of the quality of life may result.

The need to maintain economic viability and, at the same time, quality of life is a challenge. Elements 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 can also contribute to the quality of life for residents of a region and can act as an attractor for economic development.

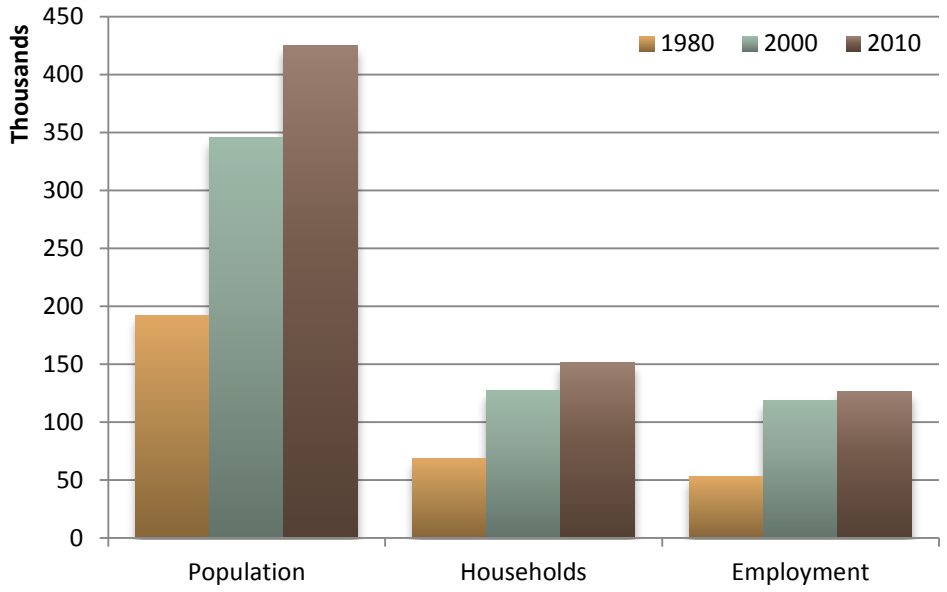
Growth in Clark County

Clark County has seen significant rates of growth in the last three decades. Between 1980 and 2010 the population of the county increased from 192,227 in 1980 to 425,363 in 2010 while the number of households increased from 68,750 in 1980 to

The rapid growth seen in the County over the last three decades has increased demands on the regional transportation system.

151,300 in 2010 (see Figure 2-1). Employment[1] in Clark County increased from 52,870 in 1980 to 126,500 in 2010. Washington State's Office of Financial Management (OFM) estimates Clark County's 2011 population at 428,000. The rapid growth seen in the County in the last three decades has increased demands on the regional transportation system.

Figure 2-1: Growth in Clark County, 1980 to 2000 and 2010



From 1980 to 2010: Population grew 121%, Households grew 120%, Employment grew 139%.
Sources: U.S. Census Bureau, U.S. Bureau of Labor Statistics, Washington State Office of Financial Management (OFM)

Development of a transportation policy plan to provide for mobility of people, freight and goods has to consider how to plan for a transportation system that can support an increase in travel demand caused by growth in population and employment. At the same time, this system has to be affordable and avoid environmental impacts to maintain the quality of life. A safe, efficient transportation system can work to enhance economic development within a region and development of the transportation system in conjunction with land use plans can contribute to positive growth management.

Existing Land Uses in Clark County

From the City of Vancouver, the urban hub of the county on the banks of the Columbia River, Clark County spreads through a growing suburban band, across agricultural lands and a network of smaller cities and towns to the slopes of the

[1] *Employment numbers used in the MTP are the equivalent of U.S. Department of Labor, Bureau of Labor Statistics (BLS) or 'covered employment.' In comparison, the Department of Commerce, Bureau of Economic Analysis (BEA), reports total employment that includes all wage and salaried jobs as well as proprietors' jobs that includes sole proprietor, self-employed and farm employment.*

Clark County's location on the northern periphery of the Portland metropolitan area has contributed to the significant growth in residential developments and employment activities.

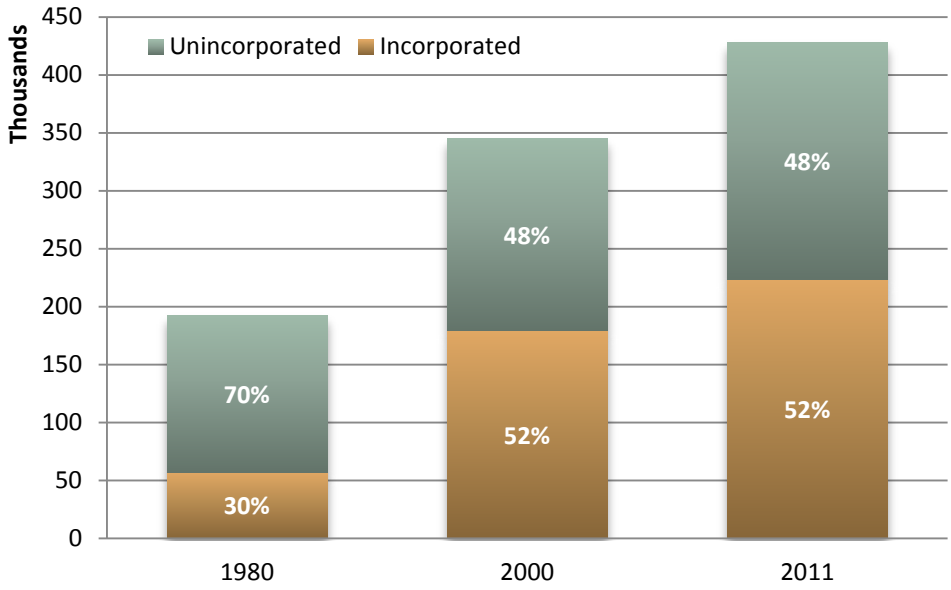
Cascade Mountain Range. The county is compact, measuring approximately 25 miles across in either direction and has an area of 405,760 acres (627 square miles).

Clark County's location on the northern periphery of the Portland metropolitan area has contributed to the significant growth in residential development and employment activities within the county. The nationwide trend toward development of the suburbs of metropolitan areas for residential developments, as well as employment activities, is apparent in this region. This development trend has implications for the provision of transportation infrastructure and services.

The region's location on the Pacific Rim, with easy access to Portland International Airport, has contributed to its growth and development. With the establishment of high technology industries the region has been successful in diversifying its economic base. Today, Clark County's major employers include service sector and high tech industry; the local school districts, PeaceHealth Southwest Medical Center, county and city government, Fred Meyer stores, the Bonneville Power Administration, Safeway stores, Georgia-Pacific Corporation, Wafertech, SEH America, Kaiser Permanente, the Vancouver Clinic, Legacy Hospital - Salmon Creek, Clark College, Washington State University, Columbia Machine, Frito-Lay, Electric Lightwave and Holland-Burgerville.

In Clark County the past three decades has seen population growth in both the incorporated and unincorporated areas. Between 1980 and 2011 the incorporated areas increased in population from 57,248 in 1980 to 223,390 in 2011 while the unincorporated area increased in population from 134,979 in 1980 to 204,610 in 2011. The proportion of the population living in the unincorporated areas decreased from 70% in 1980 to 48% in 2011 while the proportion living in the incorporated areas increased from 30% in 1980 to 52% in 2011 (see Figure 2-2). Annexations by the City of Vancouver and the County's smaller cities have resulted in this trend. A large annexation of the Cascade Park area to Vancouver took place in 1997 when Vancouver became the State's fourth largest city. In 1996, the City of Vancouver's population was at 67,450 and in 2011 it is estimated at 162,300.

Figure 2-2: Population of Clark County: 1980, 2000 and 2011 Incorporated and Unincorporated Areas



From 1980 to 2011, population grew 290% in incorporated areas, and 52% in unincorporated areas. During the same period, the overall percentage of population within incorporated areas increased from 30% to 52%.

Source: Washington State Office of Financial Management (OFM)

The provision of public facilities and services, including transportation facilities such as highways, bicycle lanes, pedestrian paths, and transit services is a significant determinant of land use patterns. Contemporary land use patterns in Clark County have evolved largely as a result of its residents' dependence on the automobile for mobility. A look at land use maps for Clark County indicate that residential and commercial development has spread out along Highway 99, Fourth Plain, Mill Plain and SR-14. The opening of SR-500 and I-205 stimulated growth in the Vancouver Mall and Cascade Park/East County areas in the late 1980s and 1990s by offering increased accessibility to the two areas.

The City of Vancouver saw relatively small growth in its population in the 1970s and 1980s. However, several significant annexations of land into the City boosted its population from 65,360 in 1995 to 127,900 in 1997.

The area around Vancouver Mall was relatively isolated, undeveloped and unincorporated when construction began in 1977.

The area around Vancouver Mall, now known as Westfield Shoppingtown, was a relatively isolated and undeveloped tract of unincorporated Clark County when the 918,000 square foot shopping mall was constructed in two phases in 1977 and 1980. However, the improved access provided by the completion of I-205 in 1982 and completion of SR-500 in 1984, contributed to the area's rapid development. New commercial, retail, and residential developments have been attracted to the area, including offices, shops, restaurants, hotel units and apartments. Vancouver Plaza, a 45-acre retail development to the south-west of Vancouver Mall opened in fall 1988, Parkway Plaza to the west of the Mall includes several large office buildings. Columbia Tech Center has developed in east Vancouver and Hazel Dell Town Center is open for business in Hazel Dell.

The Glenn-Jackson Bridge that carries I-205 traffic across the Columbia opened in 1982. This provided a second Portland-Vancouver area river crossing. It relieved the bottleneck on I-5 and opened up access to the Portland region including access to Portland International Airport. Rapid development of the area to the east of I-205 followed. Much of the region's 1990s growth focused on the Mill Plain and 164/162nd Avenue corridors in east County where a mix of residential, commercial and business development took place. Residential development ranges from the adult community at Fairway Village to numerous large apartment developments as well as Fisher's Landing development. Commercial development began in the area in 1978 when Fred Meyer opened a shopping center at Chkalov and Mill Plain. Others were quick to realize the area's commercial potential. More recent commercial developments have included Mill Plain Town Center, anchored by Target, at Mill Plain and 164th Avenue, Columbia Tech Center shops and commercial development in the 192nd Avenue corridor. Business center developments include Columbia Tech Center and Stonemill Business Park.

Over the past twenty years, there has been significant growth in the smaller cities of Clark County (see Table 2-1) and this trend is continuing. While the County's population grew by 80% between 1990 and 2011, Camas grew by 189%, Battle Ground by 373%, Washougal by 198% and Ridgefield's population grew by 273%. Growth of the smaller cities of Clark County leads to a need to improve transportation facilities connecting these urban areas with the larger Vancouver and Portland metropolitan area.

The provision of public facilities and services, including transportation, has shaped the development of land uses in Clark County up to the present and is likely to continue to do so into the future.

Table 2-1: Growth in Population of Clark County Cities, 1980 to 2011

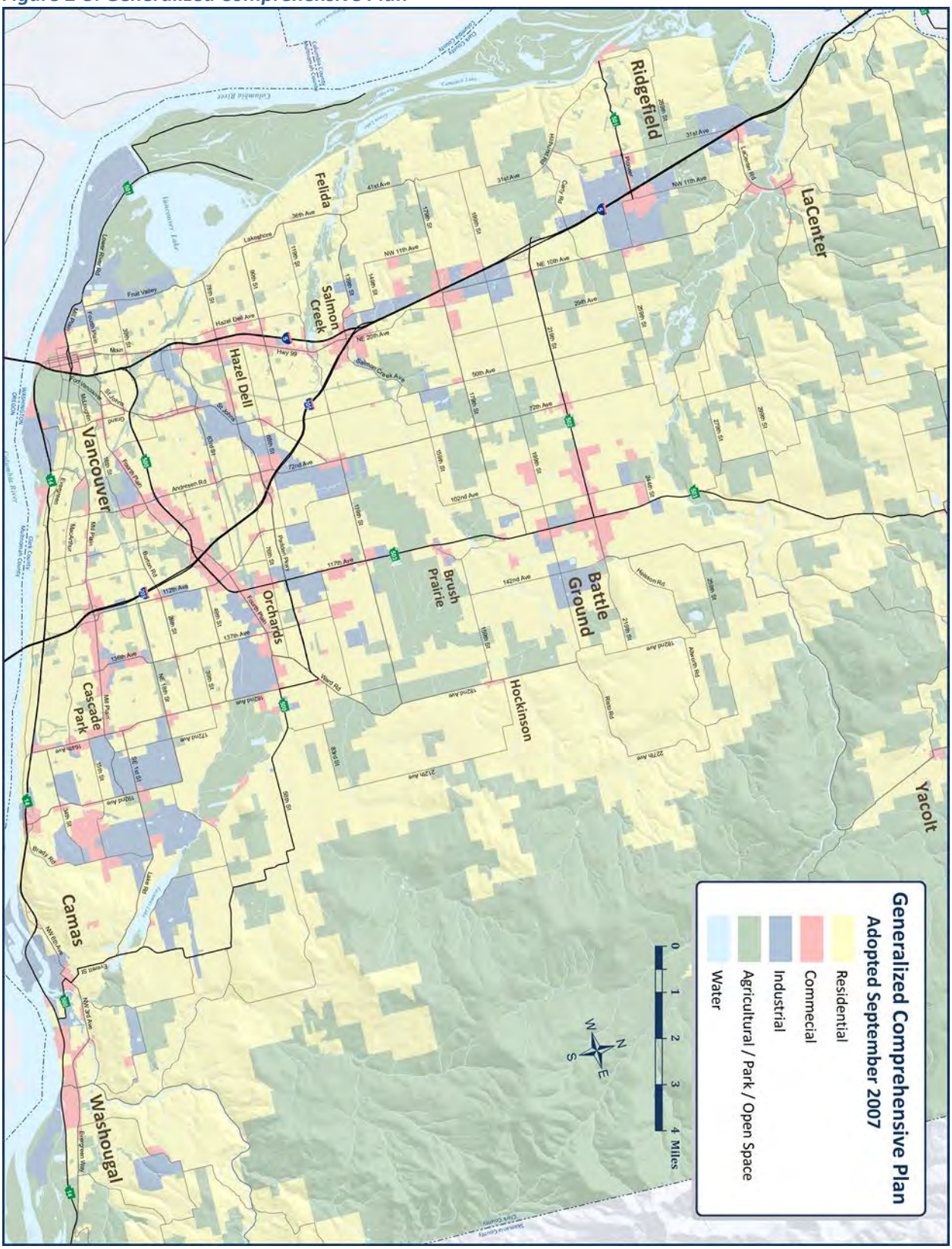
	1980	1990	2000	2011	% Increase 1990-2011	2011 % of Total
Clark County	192,227	238,053	345,238	428,000	80%	100.0%
Unincorporated	134,979	173,844	166,279	204,610	18%	47.8%
Incorporated	57,248	64,209	178,959	223,390	248%	52.2%
Battle Ground	2,774	3,758	9,322	17,780	373%	4.2%
Camas	5,681	6,798	12,534	19,620	189%	4.6%
La Center	439	483	1,654	2,835	487%	0.7%
Ridgefield	1,062	1,332	2,147	4,975	273%	1.2%
Vancouver	42,834	46,380	143,560	162,300	250%	37.9%
Washougal	3,834	4,764	9,595	14,210	198%	3.3%
Woodland *(partial)*	80	94	92	85	-10%	0.0%
Yacolt	544	600	1,055	1,585	164%	0.4%

The Comprehensive Growth Management Plan: Land Use for the Future

Comprehensive plans are the means by which local jurisdictions plan for their future growth and development. Development of these comprehensive plans provides 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.63Under planning provisions contained in the 1990 Growth Management Act, codified in RCW 36.70a and RCW 47.80, local comprehensive plans are the basis for defining and integrating land use, transportation, capital facilities, public utilities and environmental protection elements. Within the comprehensive planning process these elements have to be inter-related and there has to be consistency between them. The GMA legislation requires that land use decisions should not be made without consideration of transportation needs and impacts. A generalized map showing Comprehensive Plan land uses is displayed in Figure 2-3.

Local land use plans drive transportation needs by directing future growth and development.

Figure 2-3: Generalized Comprehensive Plan



Clark County Jurisdictions' Comprehensive Land Use Plans and Zoning: Use in the Regional Transportation Planning Process

The twenty-year Comprehensive Growth Management Plan for Clark County guides the growth of the County toward the future vision. The Comprehensive Plan was first adopted in 1994 with updates in 1997, 2004, and 2007. The Board of Clark County Commissioners adopted the most recent changes to the *Clark County Comprehensive Plan, 2004-2024*, on September 25, 2007 following an in-depth examination that began in 2005. The updated Comprehensive Growth Management Plan establishes 584,310 as the population forecast for 2024 and 230,000[2] jobs as the employment forecast.

Comprehensive plans are used in the regional transportation planning process as the basis for determining future land uses and identifying where future development is likely to occur. The MTP update must be based on the adopted land use plans of local jurisdictions. The MTP's horizon year is 2035 because an MTP must cover at least a 20 year planning period and it is strongly encouraged by federal agencies that the twenty year horizon be maintained throughout the MTP's period of validity before the MTP is again updated. Therefore, a 2035 horizon year was selected for this 2011 update to the MTP for Clark County. 2035 land uses are based on the adopted *Comprehensive Growth Management Plan for Clark County* (Clark County, September 2007) which has a horizon year of 2024, extended a further eleven years to the MTP's 2035 horizon. The 2035 demographic projections and land use allocations were developed by local jurisdictions working in partnership with RTC.

[2] *Bureau of Labor Statistics equivalent employment or 'covered' employment.*

Population will grow 51%, according to the 2035 forecast, while employment grows 102%.

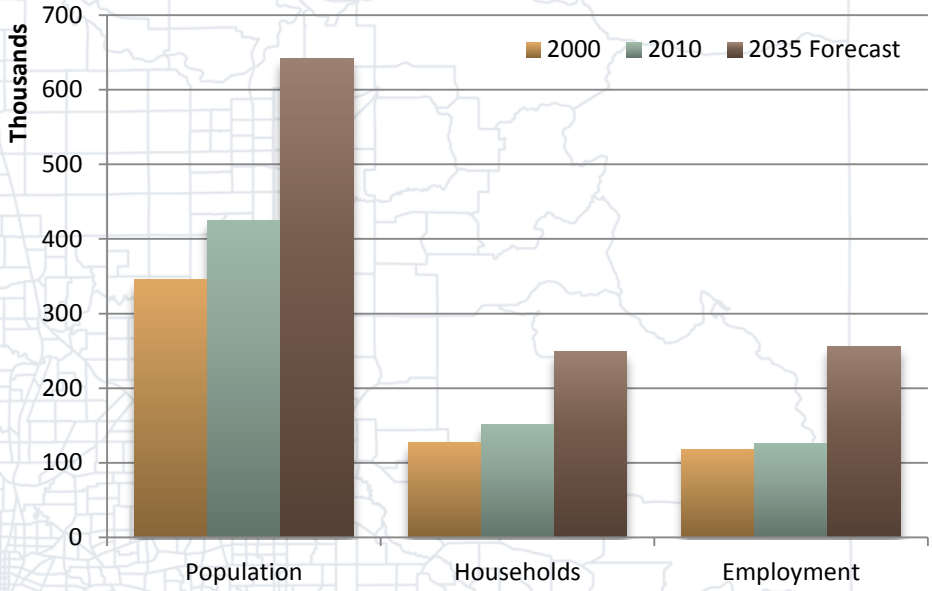
Population and Employment Forecast

The 1990 state Growth Management Act (GMA) requires that local Growth Management Plans support a population forecast developed by the Washington Office of Financial Management (OFM In November 2007, OFM released the GMA County projections to 2030. For Clark County, the OFM-projected 2030 population falls within a range from a low of 493,383 to a high of 673,980 with a mid-range projection of 579,768.

For MTP regional transportation planning purposes, a 2035 population forecast of 641,800 is used, with 2035 household numbers forecast at 248,750 and 2035 employment forecast at 256,200 (refer to Figure 2-4). The 2035 growth forecast remains optimistic despite the economic setbacks experienced from 2008 onward. Planners will continue to track trends to determine whether longer-range growth forecasts should be scaled back and these trends will be reported in the next MTP update.

In the regional transportation planning process the forecast growth in housing and employment for the year 2035 is converted into projections of future travel demand. The comprehensive plan land use designations and existing zoning are used as a basis for distributing 2035 forecasts for housing and employment. The demographic distributions are based on the County Assessor's data, building permit data and on vacant, buildable lands analysis.

Figure 2-4: Growth in Clark County – 2000, 2010 and Forecast 2035



2010 to 2035 forecasts indicate Population will grow 86% and Employment will grow 102%, during that period.

Sources: U.S. Census Bureau, U.S. Bureau of Labor Statistics, WA State Office of Financial Management (OFM), and Clark County

While population grew 104% from 1980 to 2005, the number of registered passenger cars increased by 127%.

The smaller cities of Clark County are planning for denser development and expanded urban boundaries.

Where will future growth locate?

The population of Clark County is forecast to grow by 216,437 people during the planning period from 2010 to 2035 and employment is set to grow by 129,700. In growth management planning, denser patterns of development are to be encouraged along the main transportation corridors where there is transit service. In significant transit corridors, densities and appropriate urban designs are to be encouraged to maximize the efficiencies of land use and transit usage. The 1994 Comprehensive Plan forecast significant development in three growth centers within the Vancouver UGA: Downtown Vancouver, Vancouver Mall and the Salmon Creek/Washington State University vicinity. More recent Comprehensive Plan updates forecast significant growth for the smaller cities within Clark County. The smaller cities of Clark County are planning for denser development and expanded urban boundaries as they become the focus for growth outside of the core urban area of Vancouver.

Demographic and Land Use Trends

Growth in population and employment, development, and resulting distribution of land uses all affect travel demand. Additional factors that influence travel demand include household size, workforce participation, employment patterns and vehicle ownership.

Household Size and Type

Household size is a significant demographic factor that influences land use and demand for transportation services. Decreased household size may result in development pressures for more housing and further expansion of land for residential uses to accommodate the additional houses. Expansion of residential land uses requires improvements and expansion to the transportation system to access new and developing residential areas. Over the past two decades, the ratio of single family to multi-family housing has changed in Clark County with a move toward more multi-family housing. In 1980 81% of the homes in the County were single family (including mobile homes) compared with 19% multi-family housing units. By 2000 these housing numbers had changed to 77% single family and 23% multi-family.

In the decade of the 1980s there was a trend toward smaller household size due to more single-person households and smaller family size. In 1980, the average number of persons per household in Clark County was 2.76 but by 1990 it had fallen to 2.69. The decade of the 1990s saw no change in average household size in Clark County with the 2000 U.S. Census

also recording an average 2.69 persons per household in Clark County. By 2010, indications are that household size is again increasing in Clark County with 2.81 persons per household.

Employment Trends

Employment in Clark County has also changed over time, with a relative decline in traditional, blue-collar, industrial jobs and an increase in service sector employment. There has been growth in "high-tech" employment and a large increase in the retail sector in recent years. The number of jobs is increasing in suburban areas of Clark County and employment is dispersing throughout the region. The "new" suburban places of employment have tended to add to travel demand because of their dispersal. Their design has catered to auto-commuters and they are not as easily served by transit service.

Special Needs Populations

Table 2-2 provides information that compares 1990, 2000 and 2005-2009 (ACS) census demographic data of relevance in the metropolitan regional transportation planning process. This table reports on demographic data of particular relevance in considering environmental justice and special services transportation needs. Several important trends to note include the following: under race Whites continue to be the large majority but have decreased significantly from 94.6% in 1990 to 87.5% in 2009. This Hispanic/Latino population has increased from 5,872 in 1990 to 27,480 in 2009.

Table 2-2: Summary of Clark County Demographics

		1990	Percent	2000	Percent	2005-2009	Percent
Population		238,053	100%	345,238	100%	416,205	100%
Age	Under 65	212,686	89.3%	312,430	90.5%	372,099	89.4%
	65 and Over	25,367	10.7%	32,808	9.5%	44,106	10.6%
Race	White	225,192	94.6%	306,648	88.8%	364,383	87.5%
	Black or African American	2,976	1.3%	5,813	1.7%	7,038	1.7%
	American Indian, Alaska Native	2,296	1.0%	2,910	0.8%	3,012	0.7%
	Asian*	5,670	2.4%	11,095	3.2%	15,676	3.8%
	Native Hawaiian, Other Pacific Islander	see above		1,274	0.4%	1,747	0.4%
	Other*	1,919	0.8%	17,498	5.1%	24,349	5.9%
Origin	Non-Hispanic / Non-Latino	232,181	97.5%	328,990	95.3%	388,725	93.4%
	Hispanic / Latino	5,872	2.5%	16,248	4.7%	27,480	6.6%

* NOTE: Direct comparison between 1990 and 2000 data is not possible for some categories. In 1990, Asian and Pacific Islanders were grouped together and there was no reporting on two of more races.

Increase in the Aged Population

According to the 2010 US Census and the Washington State Office of Financial Management's (OFM's) October 2007 forecast, Clark County's population is forecast to grow by 36% over the next 20 years from 425,363 in 2010 to 579,768 in 2030. However, the population aged over 65 is forecast to grow by 136%, from 46,217 in 2010 to 109,179 in 2030. The senior age group's share of population is forecast to grow from 10.6% in 2010 to 18.8% in 2030. This will have a significant impact on transportation services required with a likely growing demand for C-TRAN paratransit service.

Transportation Modal Trends: Journey to Work

Tables 2-3 provides information that compares 1990, 2000 and 2005-2009 (ACS) census data showing mode used to get to work. Most notable is the increase in numbers working from home as well as the increase in carpool and transit..

Table 2-3: Clark County Journey to Work

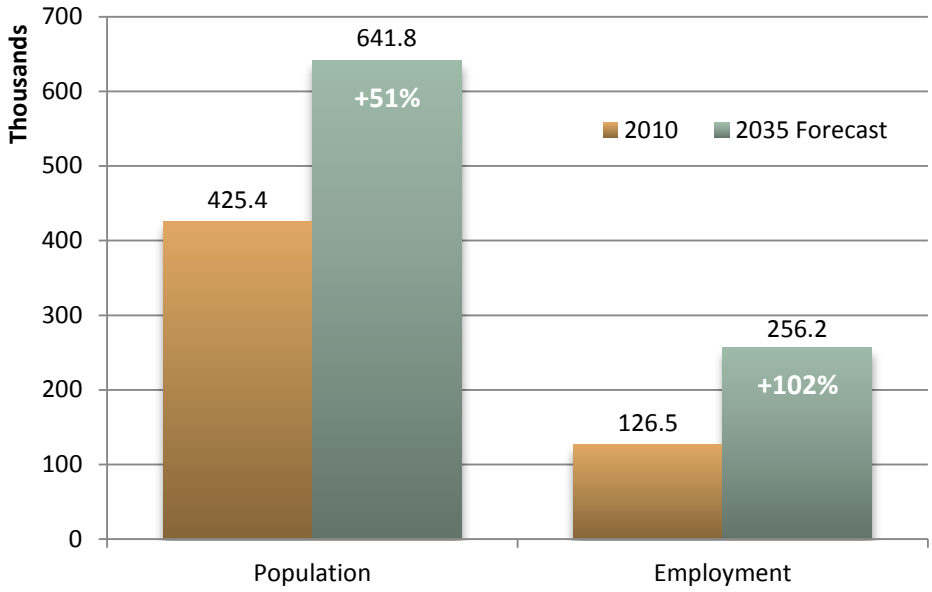
	1990	Percent	**2000**	Percent	**2005-2009**	Percent
Commuters	108,945		161,471		189,117	
Drive Alone	87,748	80.5%	128,014	79.3%	147,559	78.0%
Carpool	12,017	11.0%	18,089	11.2%	20,155	10.7%
Transit	2,275	2.1%	4,228	2.6%	4,699	2.5%
Walked	2,091	1.9%	2,211	1.4%	2,978	1.6%
Other	1,224	1.1%	1,788	1.1%	3,109	1.6%
Worked at Home	3,590	3.3%	7,141	4.4%	10,617	5.6%
Mean Travel Time to Work (those that work outside home)	21.2 min.		24.7 min.		24.9 min.	

Source: U.S. Census Bureau (including 2005-2009 American Community Survey)

Growth in population as well as the other demographic factors described above has resulted in increase in travel demand to be met by Clark County's transportation system. Development of land, growth in population and travel demand requires a combination of expansion of public facilities and service provision and a revision to land use plans to ensure mixed use developments and better balance of jobs and housing throughout the region. One of the goals of the comprehensive plan for the Clark County region, developed under the Growth Management Act (GMA), is to reverse the trend of increased dependence on the automobile. In the comprehensive plan, land uses and transportation have been linked in the planning process and their inter-relationships considered in developing a vision for future

growth and future growth patterns. In assessing future transportation needs for the Clark County region the comprehensive plans of its jurisdictions are used as a basis for analysis of the transportation system. The GMA requires that transportation system improvements be put in place, concurrent with land development.

Figure 2-5: Clark County MTP Growth Forecast, 2010 to 2035



Sources: U.S. Census Bureau, U.S. Bureau of Labor Statistics, WA State Office of Financial Management (OFM), and Clark County

Emerging Issues to Track

When considering demographics, land use and transportation, the following issues and trends should be tracked:

- Analyze 2010 census data as it becomes available.
- Economic trends – will the subdued economy continue and will this have an effect on longer-term growth forecasts for this region?
- Washington Office of Financial Management (OFM) updates to demographic forecasts, including updates to forecast of the growing senior population.
- The work of local jurisdictions on updates to comprehensive plan elements.

New economic trends and changing demographics will impact future transportation decisions.

Chapter 3: The Regional Transportation System; Existing System and Future Performance

Defining the Regional Transportation System

The designated regional transportation system is the focus for transportation planning in the MTP. Consistent with the state's Regional Transportation Planning Program Planning Standards, the designated MTP regional transportation system (refer to Figure 3-1, or download a high-resolution map) includes:

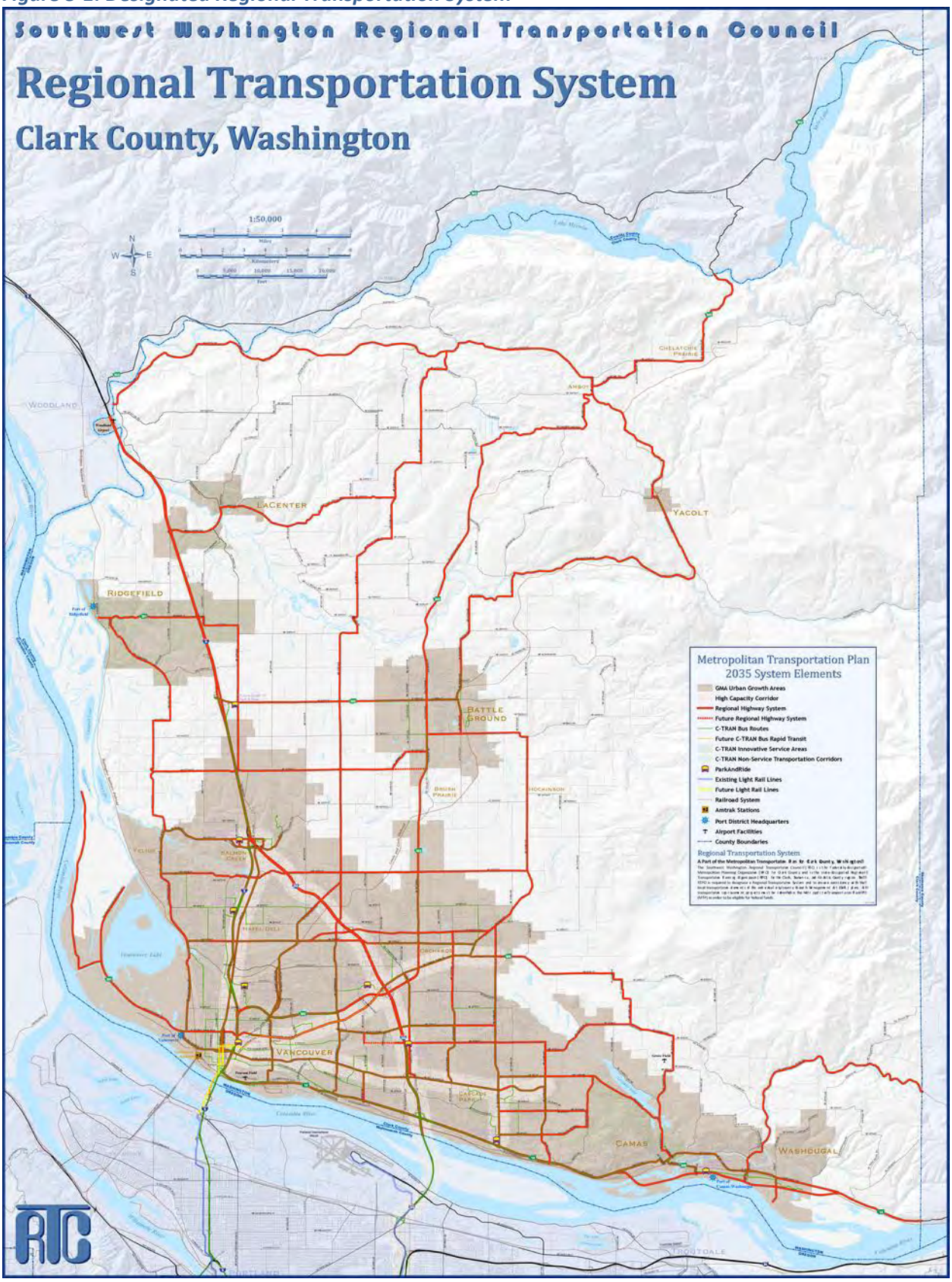
- All state transportation facilities and services including I-5, I-205, SR-14, SR-500, SR-501, SR-502 and SR-503.
- All local freeways, expressways, and principal arterials. Examples include Mill Plain Blvd, Fourth Plain Blvd, N.E. 78th Street, Padden Parkway, N.E. 112th Avenue, SE/NE164th/162nd Avenues and segments of St. John's Blvd and Andresen Road.
- All high-capacity transit systems including the Locally Preferred Alternative identified in the I-5 Columbia River Crossing Project and HCT corridors identified in the HCT System Study (Fourth Plain Blvd, Highway 99, Mill Plain Blvd, and I-205).
- All other transportation facilities and services that the RTPO considers necessary to complete the regional plan including the C-TRAN public Transit System and facilities.

Functional classes describe roadway characteristics based on overall traffic volumes, typical trip lengths, and types of lands accessed.

Arterials: Functional Classification

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 or long-distance traffic. Collector facilities generally provide equal emphasis upon mobility and land use accessibility. Local facilities emphasize access to land.

Figure 3-1: Designated Regional Transportation System



Federal Transportation Boundaries

As a pre-requisite to the federal functional classification of roads, an Urban Area Boundary must be defined (refer to Figure 3-2; Transportation Boundaries). The distinction between urban and rural is important because facilities classified as collector or above in urban areas are eligible for federal funding while in the rural area those facilities classified as major collector and above are eligible.

ISTEA also called for MPO's to establish a Metropolitan Area Boundary marking the area to be covered by MPO regional transportation planning activities. The Metropolitan Area Boundary established for the Clark County region includes the whole of Clark county (refer to Figure 3-2; Transportation Boundaries). With a population of over 200,000 the Portland-Vancouver metropolitan area is designated as a Transportation Management Area (TMA) by the U.S. Secretary of Transportation.

Public Transportation Options

C-TRAN Public Transit System

Clark County Public Transportation Benefit Authority (C-TRAN) provides public transit service in Clark County. C-TRAN's service area is shown on Figure 3-3. All C-TRAN's system and facilities are included as part of the designated regional transportation system. In addition to C-TRAN's fixed route service that provided 6.3 million rides in 2010 and C-VAN paratransit service that provided 218,104 rides in 2010, there are opportunities to connect with TriMet for fixed route transit to Portland, Oregon, connection with Skamania County with service provided by Skamania County Senior Services and connection with Cowlitz County with service provided by Lower Columbia Community Action Council's CAP. All C-TRAN routes use lift-equipped buses, making them easily accessible to people with disabilities.

C-TRAN's system includes three transit centers at 1) Fisher's Landing, 2) 99th Street at Stockford Village and 3) Vancouver Mall as well as nine park and ride lots. Some are operated under a site use agreement. The nine C-TRAN park and ride facilities provide more than 2,200 parking spaces at 1) Andresen, 2) BPA Ross complex, 3) Camas/Washougal, 4) Evergreen, 5) Fisher's Landing Transit Center, 6) La Center, 7) 99th Street Transit Center at Stockford Village, 8) Ridgefield, and 9) Salmon Creek. See Figure 3-4 for map showing C-TRAN fixed routes and transit centers.

C-TRAN publishes a yearly Transit Development Plan (TDP) that documents its service and plans for service within the next six years. The latest TDP, C-TRAN 2011-2016 Transit Development Plan, was published in May 2011.

C-TRAN's plans for future transit service are documented in C-TRAN 2030. However, Plan implementation is contingent on funding being available (see details in MTP's financial plan in Chapter 4).

Figure 3-2: Transportation Boundaries

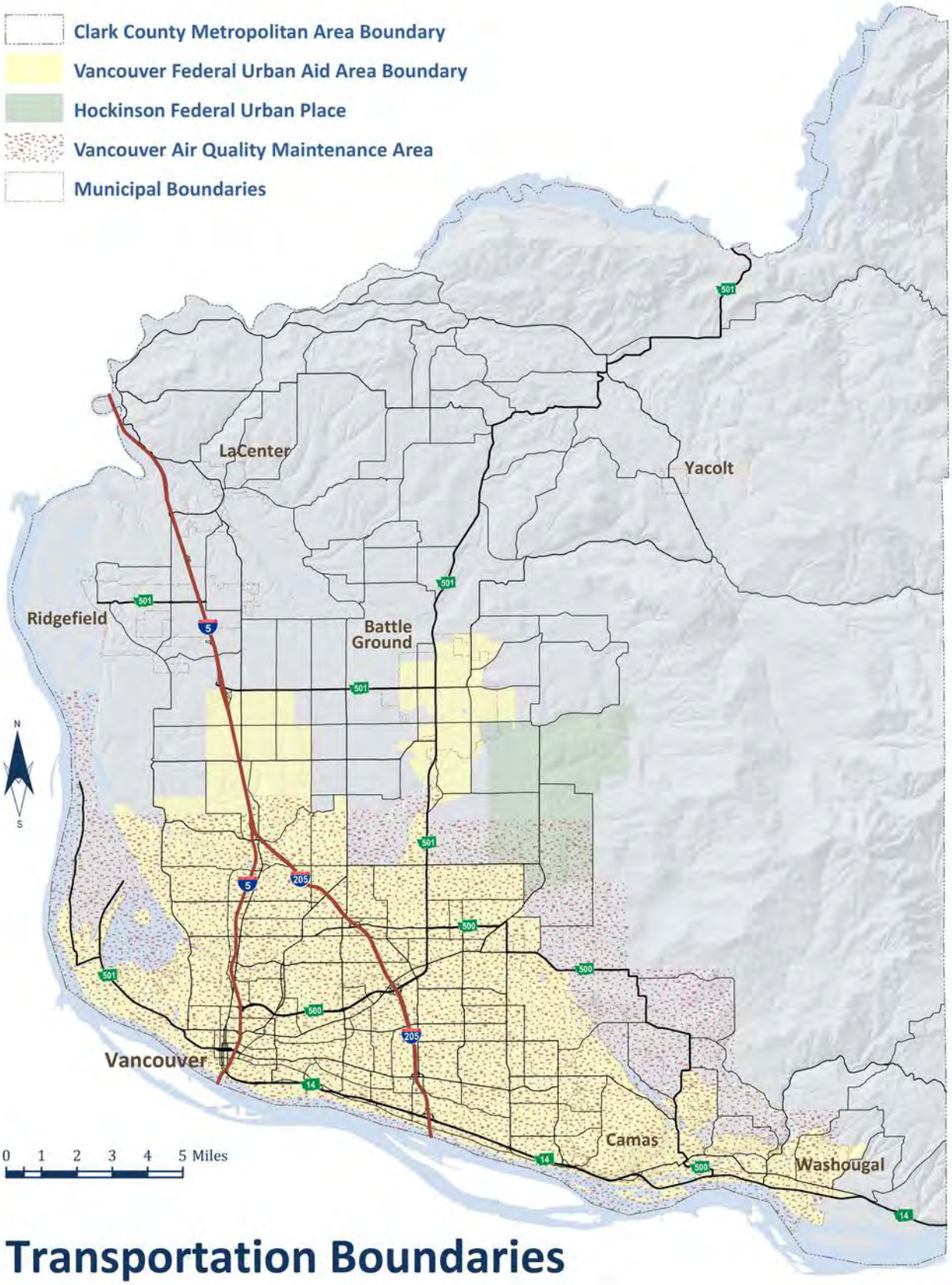
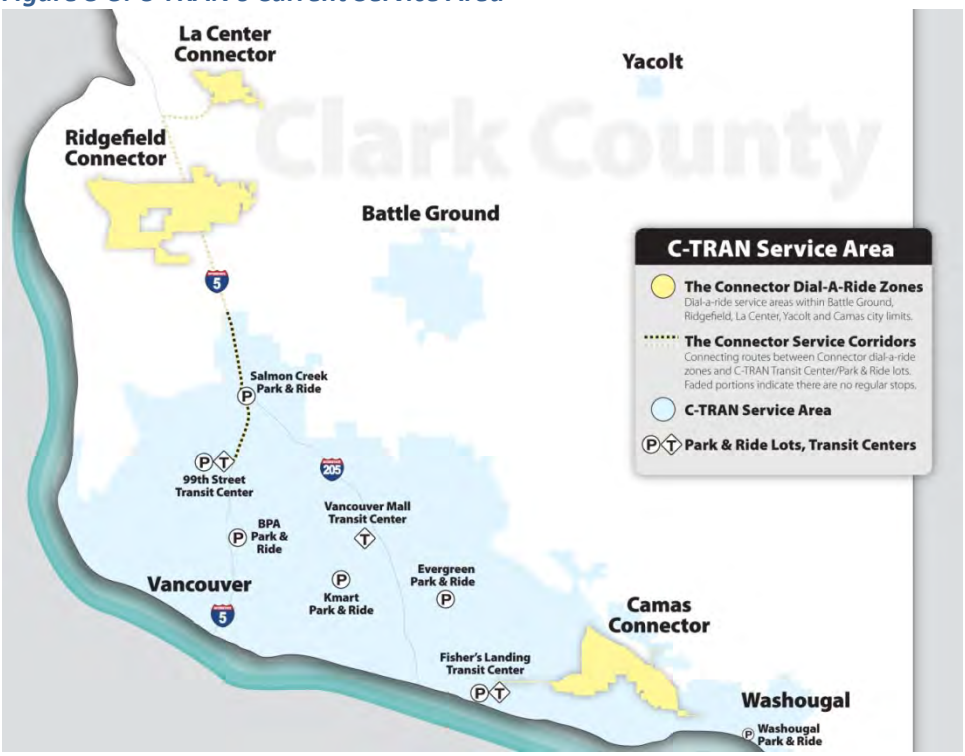


Figure 3-3: C-TRAN's Current Service Area



Other Public Transportation

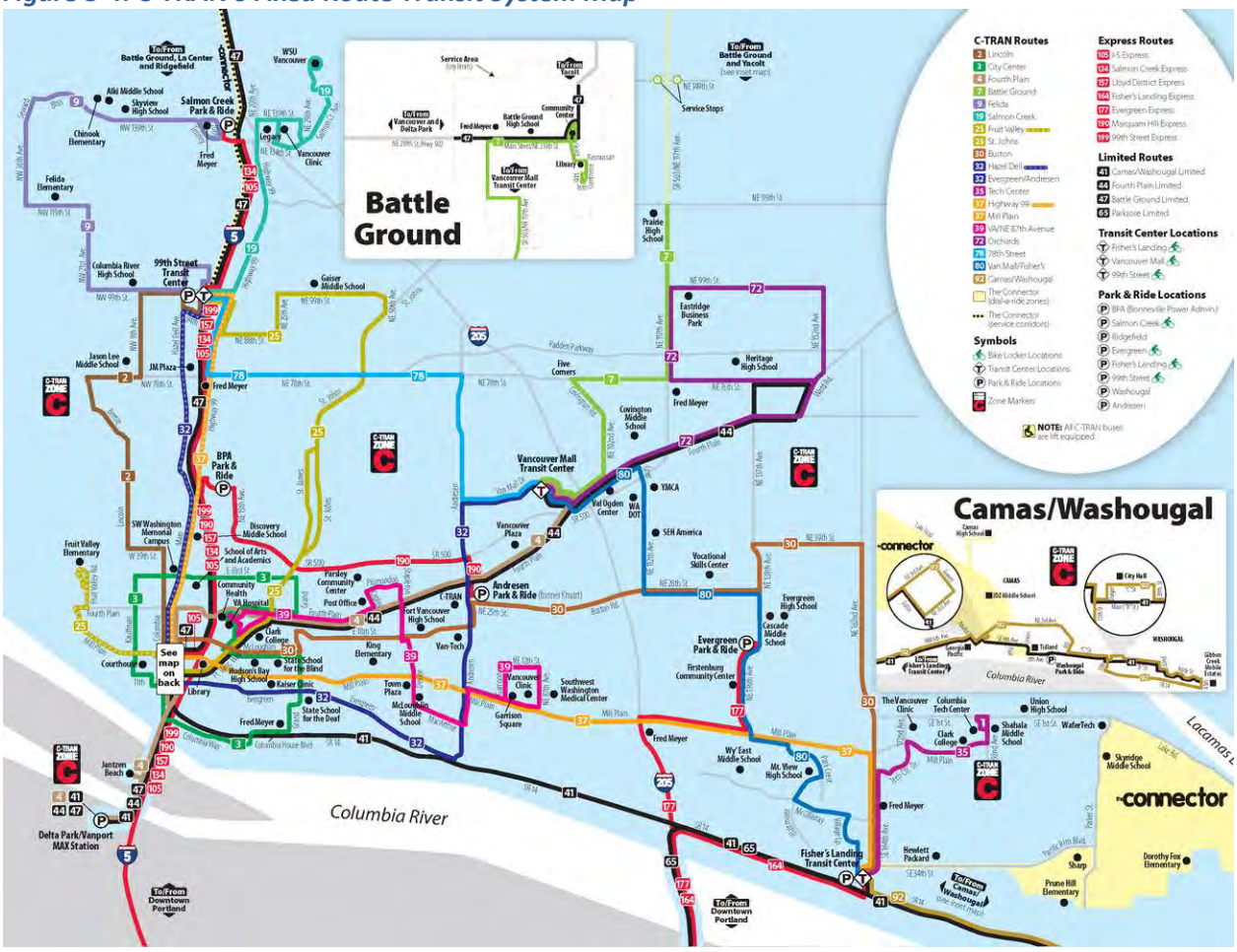
Human Services Transportation

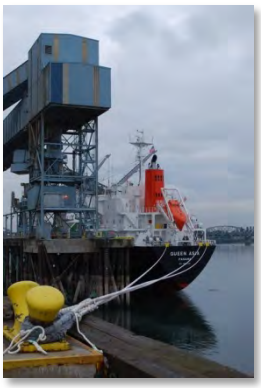
The Human Services Council Transportation Brokerage arranges rides for elderly, low income and people with medical needs and disabilities through contracts and arrangements with a variety of transportation providers. This service is highly valued in the community by people that have no access to C-TRAN or C-VAN services or for people for whom regular transit service does not work. Between January 1, 2010 and June 30, 2010 HSC brokered over 35,500 employment transportation trips and served 960 unique individuals. Continuation of the Brokerage services is dependent on grant funding.

Inter-City Bus

Inter-city bus service to cities throughout the northwest and nation-wide, provided by Greyhound Bus Lines, is no longer available from Vancouver. Vancouver residents now have to travel to Portland, Oregon to access this service.

Figure 3-4: C-TRAN's Fixed Route Transit System Map

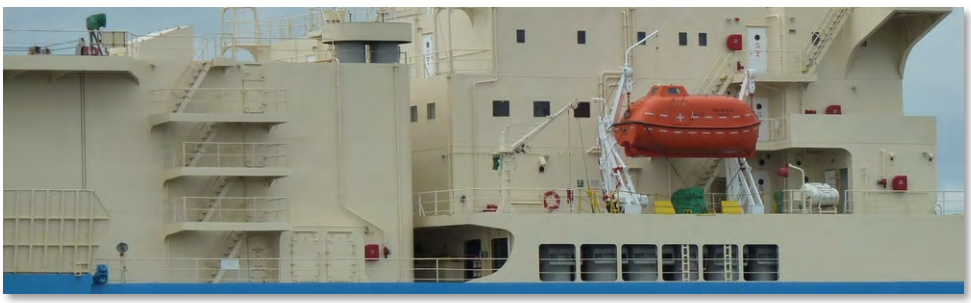




Marine Transportation

The Ports of Vancouver, Camas-Washougal and Ridgefield

The Columbia River provides a navigable waterway for the Clark County region as part of the Columbia/Snake River system. Barge traffic operates from the Portland-Vancouver metropolitan area to eastern Washington and Oregon. Ocean-going ships use the Port of Vancouver, USA. Clark County has three port districts; the Port of Vancouver, the Port of Camas-Washougal and the Port of Ridgefield.



Freight dependent businesses represent 44% of the state's jobs.

Rail

There are two mainline rail lines, both owned by Burlington Northern Santa Fe (BNSF), that run through Clark County. The mainlines carry both freight and passengers. In addition, the Lewis and Clark Railroad is a 33-mile short line railroad owned by Clark County.

The BNSF Seattle/Vancouver line is in excellent condition and has 70 to 80 trains operating in the corridor each day. The BNSF Vancouver/Eastern Washington line is also in excellent condition and handles about 40 trains daily. Union Pacific Railroad operates some freight trains to Tacoma and Seattle on BNSF's lines.

Amtrak has an agreement with BNSF to operate passenger service on the freight carrier's rail lines. Amtrak trains serve Vancouver daily.

Companies move $37 million worth of freight hourly on Washington's roadways.

The Chelatchie Prairie Railroad is a 33-mile short line railroad owned by Clark County. The line diverges from the main BNSF northern line around NW 78th Street and traverses the County via Rye Yard off St John's Road and Battle Ground to its terminus at Chelatchie Prairie. This short line railroad is also known as the Lewis and Clark Railroad or the Clark County Railroad.

Air Transportation

For Air Transportation, Clark County largely relies on the Portland International Airport located in Portland, Oregon to the southwest of the I-205 Glenn Jackson Bridge. This is a regional airport with domestic and international passenger and freight service.

Public and private freight railroads in Washington move 103 million tons of freight annually.

WSDOT's Aviation Division conducts long-term planning to face the challenge of maintaining and improving the aviation system for the future. The WSDOT Aviation Division completed the latest update to the 20-Year Aviation System Plan in 2009 as

part of its long-term air transportation study (LATS) for generation aviation and commercial airports statewide.

Within Clark County, general aviation airfields include Pearson Field and Grove Field. In addition, there are a number of private airfields located in Clark County.

Regional Transportation System Performance

A significant step in developing the MTP is the analysis of transportation system performance.

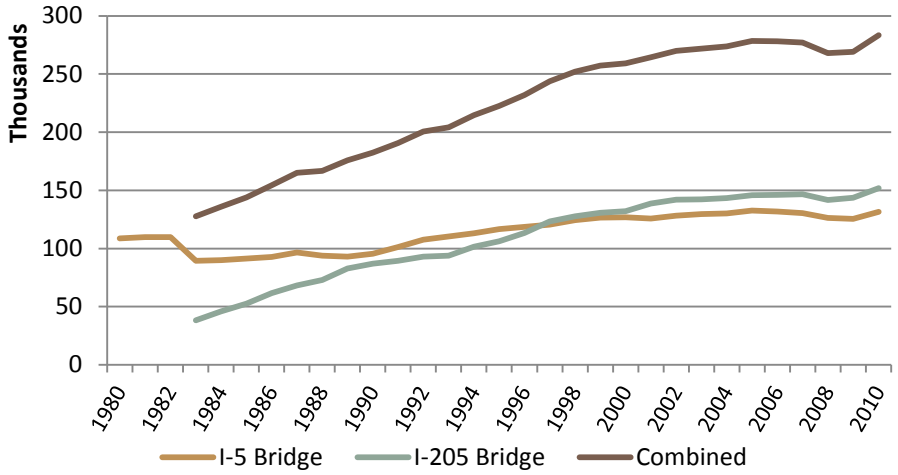
Traffic Counts

Traffic counts are a way to track highway system performance. RTC has had a traffic counting program in place for over 20 years. Data is compiled and made available on RTC's website.

As a result of socio-economic and demographic changes described in Chapter 2 Clark County has seen significant changes in traffic volumes over the last 25 years. Traffic volumes are also affected by where capacity is constrained or additional capacity has been added to the transportation network. The MPO compiles traffic count data from local jurisdictions and other sources, and makes the compiled data available on RTC's website. The economic downturn since 2008 appears to have had an effect on traffic counts with some count locations reporting slightly lower counts in years 2008-2010.

Figure 3-5 shows the average weekday traffic volumes crossing the Columbia River bridges, 1980 to 2010.

Figure 3-5: Average Weekday Columbia River Bridge Crossings



Source: Oregon Department of Transportation

Regional transportation system intersections with the highest traffic volumes, measured in terms of number of vehicles entering intersection, are listed in Table 3-1.

Table 3-1: Highest Volume Intersections in Clark County, 2010

Rank	East-West	North/South	Approx. Volume	Count Year
1	Mill Plain Blvd.	Chkalov Drive	80,000	2008
2	State Route 500/Fourth Plain	State Route 503	71,000	2009
3	State Route 500	St. John's Road	67,000	2010
4	State Route 500	NE 54th Avenue	63,000	2009
5	Padden Parkway	State Route 503	58,000	2009
6	State Route 500	NE 42nd Avenue	58,000	2009
7	Mill Plain Blvd.	136th Avenue	57,000	2009
8	Padden Parkway	Andresen Road	54,000	2008
9	Fourth Plain Blvd.	Andresen Road	52,000	2009
10	NE 134th Street	20th Avenue/Highway 99	50,000	2010
11	NE 78th Street	Highway 99	49,000	2008
12	Mill Plain Blvd.	SE 164th Ave.	48,000	2010
13	Mill Plain Blvd.	123rd / 124th Avenue	48,000	2010
14	State Route 502	State Route 503	47,000	2008
15	NE 76th Street	State Route 503	46,000	2009

Notes: Volumes are based on the total number of vehicles entering an intersection on an average weekday, and are approximate due to the annual variability. Freeway ramp intersections with streets were not considered for this table.
Source: RTC's Regional Traffic Count Program.

Regional Travel Forecasting Model: Forecasting Future Travel Demand and Transportation Needs

The Regional Travel Forecasting Model for the Clark County region is used as a tool to analyze existing and future transportation system performance. It is specifically used to forecast future traffic volumes on the regional transportation system. The regional travel forecast model uses demographic data as a basis for travel forecasts with the basis for the 2035 travel demand forecast model being the underlying forecast 2035 land uses. The travel model process involves trip generation, trip distribution, mode split and trip assignment to the regional transportation system.

In the modeling process, a base year of 2005 was used with forecasting to the year 2035. As described in Chapter 2, the MTP update must be based on adopted land use plans of local jurisdictions. 2035 land uses are based on the adopted Comprehensive Growth Management Plan for Clark County (Clark County, September 2007) which has a horizon year of 2024, extended out to the MTP's 2035 horizon.

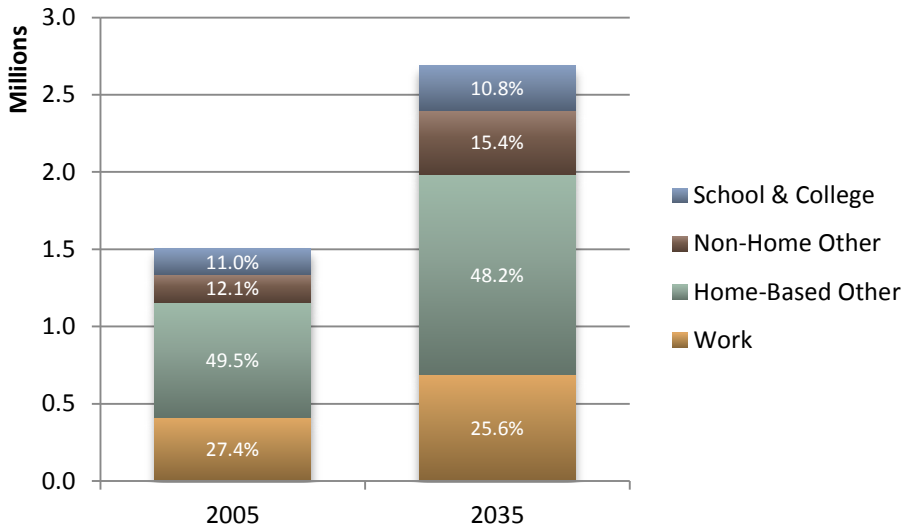
The Regional Travel Forecasting Model for the Clark County region is used as a tool to analyze existing and future transportation system performance.

Trips can be classified according to place of trip production and purpose of trip. The regional travel forecasting model for Clark County categorizes trips into several categories including Home-Based Work, Home-Based Shopping, Home-Based Other, Home-Based Recreation, Non-Home-Based Work, Non-Home-Based Other, and School and College trips. Figure 3-6 summarizes this information to show the proportion of trips in four categories for average weekday Clark County-produced person trips.

Figure 3-6 shows that in the 2005 base year the largest proportion of trips during a 24-hour period are home-based-other trips (50%). This category can include trips from home to the grocery store, home to childcare, home to leisure activities etc. The second highest category is home-based and non-home-based work trips (27%). Non-home-based-other trips make up 12% of the trips. This category can include such trips as shopping mall to restaurant trips. The home-based categories include trips originating at home and going to a destination as well as the return trip to home. School and college trips make up 11% of trips made on a daily basis. The proportions for the year 2035 are forecast to be 48% home-based-other trips, 26% home-based and non-home-based work trips, 15% non-home-based-other trips, and 11% school/college trips.

From 2005 to 2035 there is forecast to be an 80% increase in all-day person trips from around 1.5 million trips per day in 2005 to nearly 2.7 million trips in 2035.

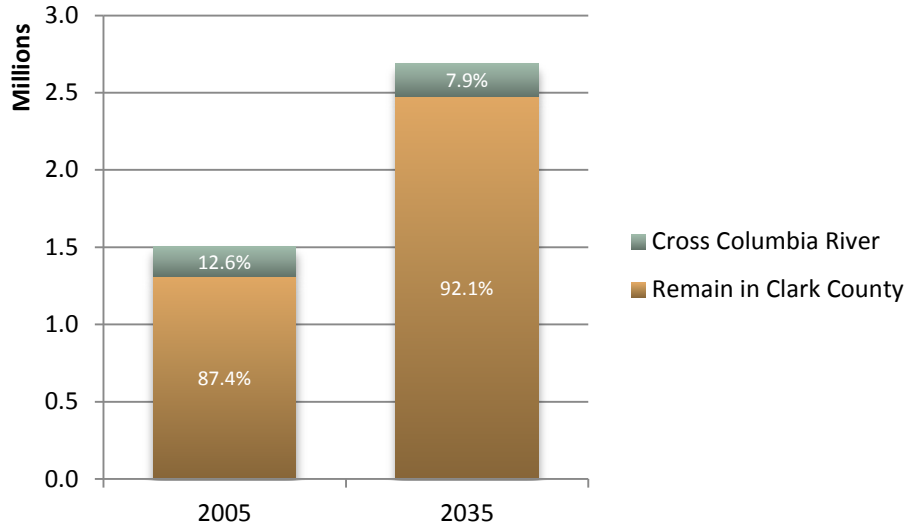
Figure 3-6: Average Weekday Person Trips by Trip Purpose for Clark County



Source: RTC Regional Travel Forecast Model

Trips can also be categorized according to where the trips begin and end. Figure 3-7 shows the proportions of trips that use the Clark County highway system; trips that remain in Clark County (87% of trips in 2005, 92% in 2035) and trips that cross the Columbia River (13% in 2005, 8% in 2035).

Figure 3-7: Distribution of Average Weekday Person Trips for Clark County



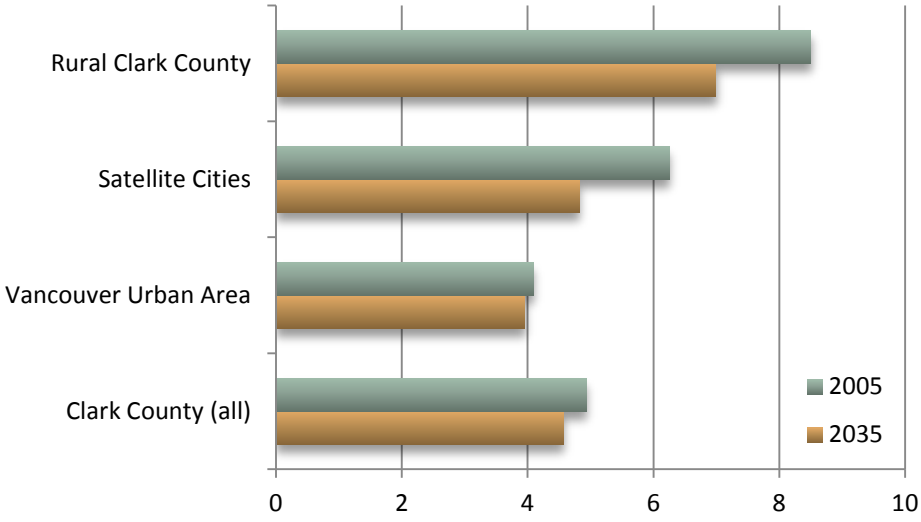
Source: RTC Regional Travel Forecast Model

Needs analysis was then carried out to determine what impact the forecast growth in travel demand might have on the transportation system.

Regional Travel Forecasting Model Analysis

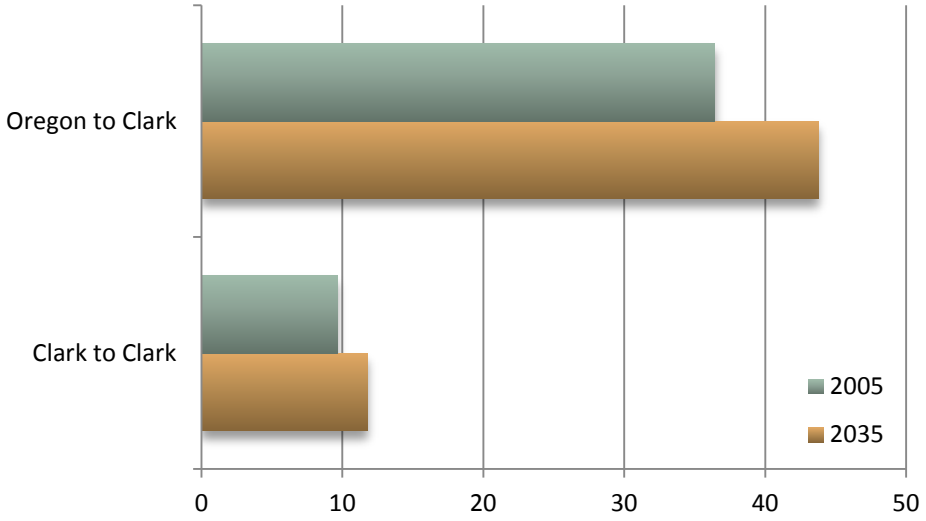
Analysis of the Regional Travel Forecasting Model can yield data for forecast speed on a transportation facility, vehicle miles traveled, lane miles of congestion and vehicle hours of delay. RTC staff uses this information to inform the project identification process. A series of graphics (Figures 3-8 through 3-10) shows some of the forecast results.

Figure 3-8: Average Auto Travel Distance (miles) – All Trips



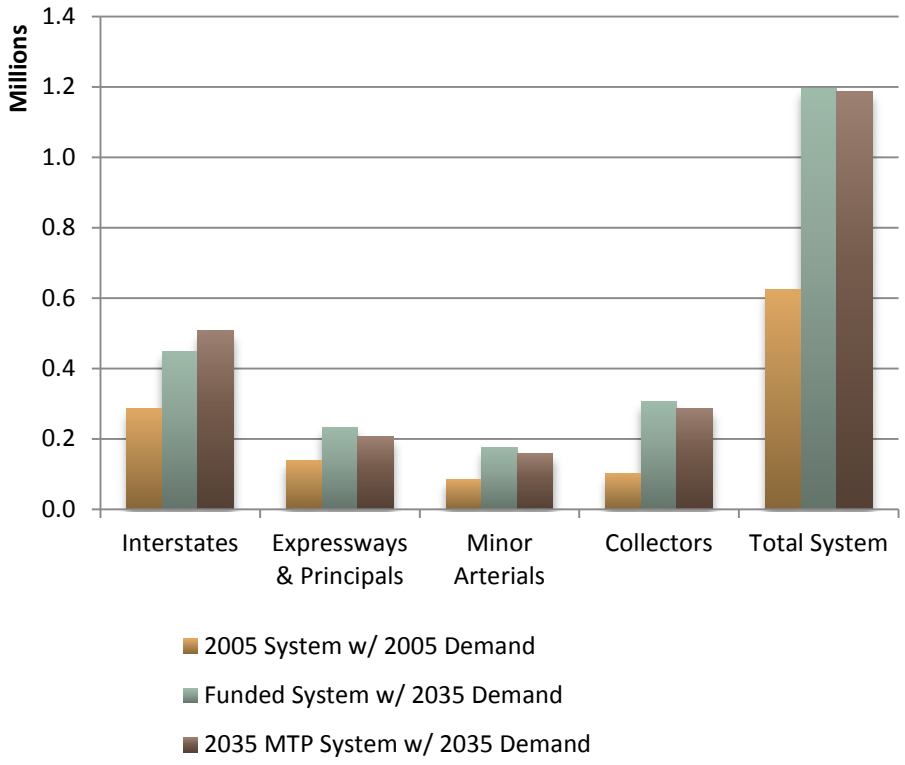
Note: Each group of bars represents trips generated by households located within the corresponding area. Satellite cities include Camas, Washougal, Ridgefield, and Battle Ground.

Figure 3-9: Average Auto Travel Time (minutes) in the P.M. Peak Hour



Notes: Compares average number of minutes for trips originating in Oregon and ending in Clark County, to those that are entirely within Clark County.

Figure 3-10: P.M. Peak Hour Vehicle Miles Traveled



Note: Clark County modeled network.

The GMA requires local jurisdictions to set levels of service standards for transportation facilities.

Levels of Service

Level 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 of the transportation system and can be described by travel times, travel speed, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. The Washington State Growth Management Act states that these standards should be established locally and standards should be regionally coordinated. The standards are used to identify deficient facilities and services in the transportation plan, and are also to be used by local governments to judge whether transportation funding is adequate to support proposed land use developments.

Levels of service are defined as "qualitative measures describing operational conditions within a traffic stream and their perception by motorists and/or passengers." A level of service definition generally describes these conditions in terms of such factors as speed and travel time, volume conditions, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. These levels of service are designated A through F, from best to worst. Level of service E describes conditions approaching and at capacity (that is, critical density).

Level of Service Standards on Highways of Statewide Significance and Highways of Regional Significance

Congestion and Levels of Service continue to be issues of interest for Clark County. In 1998, the Washington State Legislature passed House Bill 1487, otherwise known as the Level of Service (LOS) Bill. The LOS Bill aimed at clarifying how state-owned transportation facilities should be planned for and included in city and county comprehensive plans required under the Growth Management Act.

For Highways of Statewide Significance (HSS) the Bill requires that the transportation element of the comprehensive plan address the land use impact on the state highway facilities. In Clark County these highways are I-5, I-205, SR-14 and part of SR-501 to access the Port of Vancouver. The State sets the LOS for the HSS system and the HSS facilities are exempt from local concurrency analysis. In Clark County, WSDOT has established a LOS 'C' for rural HSS facilities and 'D' for urban HSS facilities.

Highways of Regional Significance, in Clark County include SR-500, non-HSS segments of SR-501, SR-502, and SR-503 must also be addressed in comprehensive plan, and have LOS set in coordination with the RTPO. The law is silent in terms of including or exempting them from local concurrency rules. In December 2001, the RTC Board adopted LOS 'E' or better for non-HSS urban state highway facilities and LOS 'C' or better on rural non-HSS facilities.

Clark County/Vancouver LOS Standards

The Growth Management Act requires local jurisdictions to set levels of service standards for transportation facilities. This ties in with the GMA concurrency requirement that transportation and other infrastructure is available concurrent with development. Levels of Service (LOS) standards are to be regionally coordinated and were coordinated within the region during the GMA planning process in 1994.

Vancouver adopted a corridor-based concurrency ordinance in March 1998 and has made subsequent amendments to its concurrency program and methodology. In fall 2011, Vancouver is in the process of updating its concurrency ordinance, codified in Vancouver Municipal Code Chapter 11.95. The Board of Clark County Commissioners has an adopted Transportation Concurrency Ordinance and related levels of service. Clark County's website has an explanation of the County's implementation of Concurrency. The County's code 40.350.020 provides program details, concurrency corridors and travel speed standards.

Transit LOS Indicators

In 1994, as part of the GMA planning process, C-TRAN also identified LOS indicators to assess the operational quality of the transit system. These indicators include load factor, headways, bus stop spacing, accessibility, span of service, land use densities, and other supporting factors.

Highway System Capacity Analysis

The Regional Travel Forecasting Model is used to analyze highway capacity needs for the Clark County region.

Transportation System Analysis

Highway capacity is not the only consideration in analysis of the regional transportation system. Consecutive federal Transportation Acts, The Intermodal Surface Transportation Efficiency Act (1991), Transportation Equity Act for the 21st Century (TEA-21) and SAFETEA-LU (2005), emphasize the need to develop alternative modes and increase capacity of the existing highway system through more efficient use by, for example, ridesharing, system management, bicycling, walking and transit use. Other alternatives have to be considered before highway capacity expansion is identified as the solution. Such strategies are described in more detail in Chapter 5. In addition, Chapter 5 also addresses the need for maintenance and preservation of the existing regional transportation system, safety of the transportation system, development of non-motorized modes and high capacity transportation systems.

Emerging Issues to Track

There are several emerging issues which will need to be tracked in the short-term. These include:

- Update to the Urban Area Boundary resulting from 2010 decennial U.S. Census results.
- Requested updates to the federal functional classification system resulting from the updated Urban Area Boundary and requests from local jurisdictions to better align the federal and local functional classifications.
- Any changes in forecast funding and the potential deferral and/or cancellation of projects and transit service will have impacts on transportation system performance. The Regional Travel Forecasting Model should be used to analyze the transportation system impacts of any changes.

Chapter 4: Transportation Finance Plan – Investing in the Future

The financial element of the Metropolitan Transportation Plan is a required component of the federal transportation planning process. The MTP's financial plan element includes (1) financial assumptions, (2) revenue sources and projections, and (3) cost estimates for transportation projects and transportation system maintenance and operations that are part of the MTP Designated Regional Transportation System. Federal fiscally constraint provisions require that the MTP must be "fiscally constrained" meaning that "revenues are reasonably expected to be available" to provide for the list of projects identified in the twenty four year timeframe of the MTP. The revenue assumptions for the Columbia River Crossing Project are described in a separate section of this chapter. Its funding strategy and status is addressed as a project of national significance and is supported by its own financial plan.

Achievements and Challenges

The 2011 MTP faces considerable challenges for funding transportation into the future. Over the last several years the economic downturn has had a negative impact on the amount of revenue available to transportation. Sales tax revenue, gas tax and other transportation fees are lower because of decreased purchasing power, a slowdown in residential development and less travel.

It is still unclear when the economic vitality of the region will recover or if the rate of employment and residential growth will return to the vigorous levels of the past. The financial assumptions in this MTP update are a reflection of the comprehensive plans of the local jurisdictions which target levels of population and employment growth based on a return to a healthy economy over the time frame of the MTP. In addition, the future of the fuel tax as the primary road finance strategy is limited. Continual advances in vehicle technology and constant erosion of purchasing power from inflation may indicate the need to find more innovative ways to pay for transportation investments. Under the current transportation funding model, electric, hybrid, and more fuel efficient vehicles generate a smaller share of transportation revenue compared to the miles they drive on the roadway. This makes it even more important that transportation planners and policy makers discuss transportation financing strategies and the benefits of how transportation is paid for.

Electric, hybrid and more fuel efficient vehicles generate a smaller share of federal and state gas revenue compared to their miles driven.

The Metropolitan Transportation Plan has traditionally focused on transportation system capacity expansion. Since adoption of the last MTP update in December 2007, several significant regional transportation system capital improvement projects have been completed amounting to over $390 million in project costs. Many of the major regional transportation projects are receiving funding through the state's Nickel and Partnership packages. Significant projects completed since 2007 include: the I-5/SR-502 Interchange; the first phase of the I-5/SR-501/Pioneer Street Interchange, and the I-205/Mill Plain/112th Avenue Ramp.

This trend is continuing with recently initiated transportation capacity investments that include: the Salmon Creek Interchange Project, the SR-500/St. John's Interchange Project, and the SR-14 Camas-Washougal Widening and Interchange Project. In addition, other capacity projects to be completed over the next five years include the south half of the I-205/18th Street Interchange and widening of SR-502 from I-5 to Battle Ground. These projects and others are now fully funded and amount to another $471 million in improvements.

The last four years has also seen the opening of the 99th Street Park and Ride facility and the relocation and opening of the Salmon Creek Park and Ride in preparation for the Salmon Creek Interchange Project construction.

The region is seeing more than $860 million of investment in transportation infrastructure over a ten year period from 2007 to 2017. However, compared to the last MTP update in 2007, future funding for major capacity improvements is limited. While the 2011 MTP contains significant mainline capacity expansion projects, many of the projects contained in this MTP update consist of modernizing interchanges, adding new ones, or upgrading arterial roadways to urban standards.

The Clark County region is investing more than $860 million in transportation infrastructure over a 10 year period.

Revenues

Revenues for transportation system development are available from federal, state, local and private sources. A full description of current and potential revenue sources and funding programs available for transportation uses is available in Appendix D of the MTP. This section will provide an overview of the current revenue sources available to fund the transportation system.

Current Transportation Revenue Sources

At the federal level, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) was passed in August 2005. The federal funding programs have a multimodal emphasis, especially the Surface Transportation Program which gives regions greater independence to invest in alternate modes of travel including capital transit projects, such as High Occupancy Vehicle (HOV), Light Rail Transit (LRT), and park and ride facilities. Current federal gas tax is 18.4 cents which has been unchanged since 1993.

The State gas tax is the major state revenue source for highway maintenance and arterial construction funding. The base gas tax is 23 cents, however, the State Legislature enacted fuel tax increases in 2003 (the Nickel Package) and 2005 (the Partnership Package at 9.5 cents) which were paired with a fixed list of projects to be constructed over the next 10 to 15 years. After 2017, the set of projects funded by nickel and partnership funds will be completed and future revenue generated by these funds will be dedicated to debt service and will not be available to new projects. Other state funding sources include licenses, permits, and fees as well as a vehicle sales tax.

Local revenue comes from a variety of sources such as property tax for road projects and sales tax for transit projects and operations. Other revenues include moneys from street use permits, gas tax, utility permits, and impact fees. In addition, local governments have authority for a variety of transportation taxing options. Most of these alternatives require voter approval to enact. Local options for transportation funding consist of vehicle license fees, sales tax, and taxes on gas and commercial parking.

Transit systems are also funded by fare box proceeds, federal funds and other local funds. Federal revenue sources described above are intended exclusively for highway investment, but also have the flexibility to be used for transit funding. C-TRAN is the Public Transportation Benefit Area for the Clark County region. As such, it has the authority to impose up to 0.9 percent local sales tax to support operations with majority support from registered voters in the Public Transportation Benefit Authority area. In November 2011 voters approved an additional 0.2 percent sales tax to preserve core bus service and paratransit service bringing the total C-TRAN sales tax rate to 0.7 percent. The cost of light rail transit operations associated with the Columbia River Crossing Project could be an additional 0.1 percent in the sales tax rate.

The cost of a gallon of gas:

9% distribution and marketing

19% refining

19% taxes

53% crude oil

Federal gas tax, unchanged at 18.4 cents per gallon since 1993, makes up 1/3 of the total gas tax paid by residents of Washington.

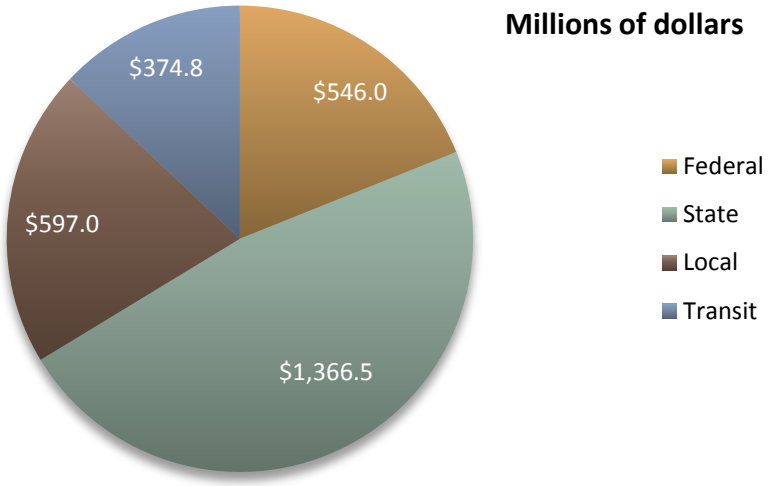
Revenue Assumptions for the MTP

The Finance Plan addresses a twenty-four year period from 2012 to 2035. The estimate of revenues available to fund MTP projects was extrapolated from historical and forecast revenue information for Clark County from the Washington State Department of Transportation Strategic Planning and Finance Division. The Finance Division provided data on state and federal transportation revenues generated in the Clark County region and also made available historic local transportation revenue and expenditure data for Clark County and cities within the County. State gas tax revenue from the nickel and partnership funds go to debt service after 2017 and are not available for new projects. Therefore, the state revenue forecast assumes the equivalent of a new ten cent/gallon gas tax implemented over a six year period beginning in 2015. The increase would start with a five cent gas tax in 2015 and one penny per year after that for the next five years. The adopted C-TRAN 2030 Plan was the basis for determining transit revenue and expenditures out to 2035. This section outlines the assumptions and methodology used for the revenue forecast.

MTP Revenue Estimate

Based on the assumptions described above, the following chart presents a summary of potential transportation revenues that could be available for projects on the designated regional system through 2035.

Figure 4-1: Potential Transportation Revenues through 2035



A total of $2.9 billion is projected from federal, state, local and transit revenue sources over the next 24 years.

Cost Assumptions for the MTP

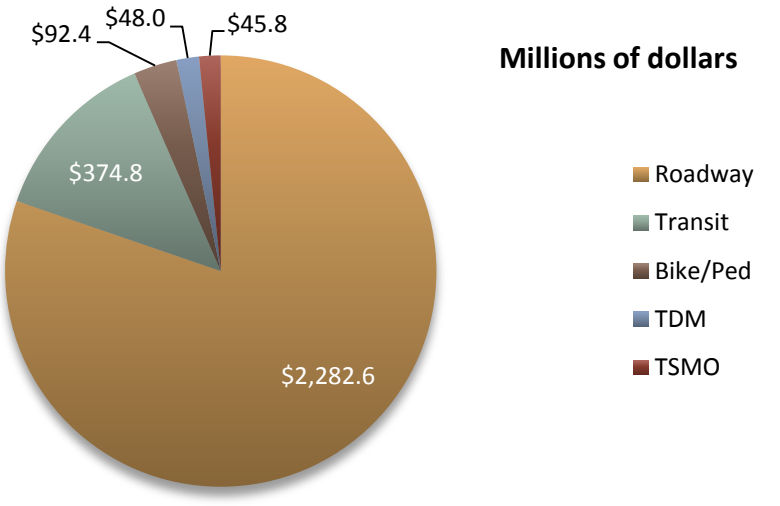
The costs of improvement on the designated regional transportation system are the focus of this section. MTP project cost estimates were taken from WSDOT's *2007-2026 Highway System Plan* and local agencies' and jurisdictions' Comprehensive Growth Management Capital Facilities Plans and from Transportation Improvement Programs and development plans for Clark County and the cities in the County. Costs for pedestrian and bicycle projects as well as costs for Intelligent Transportation System, Transportation System Management improvements and Transportation Demand Management are also included and were derived from a variety of adopted reports.

MTP Designated System Costs

Capital costs of proposed improvements to the designated regional transportation system are addressed in this section. In a rapidly growing region such as Clark County, there is large demand for system expansion. The total cost of projects on the designated regional system is $2.85 billion over a 24-year period. This cost includes highway system expansion, transit capital and other modal elements. The MTP Financial Plan needs to assure that $2.85 billion in revenue can be reasonably assumed to be available to implement these projects and strategies on the regionally designated transportation system.

The following chart summarizes, by mode, capital cost for the regionally designated system.

Figure 4-2: Capital costs by mode



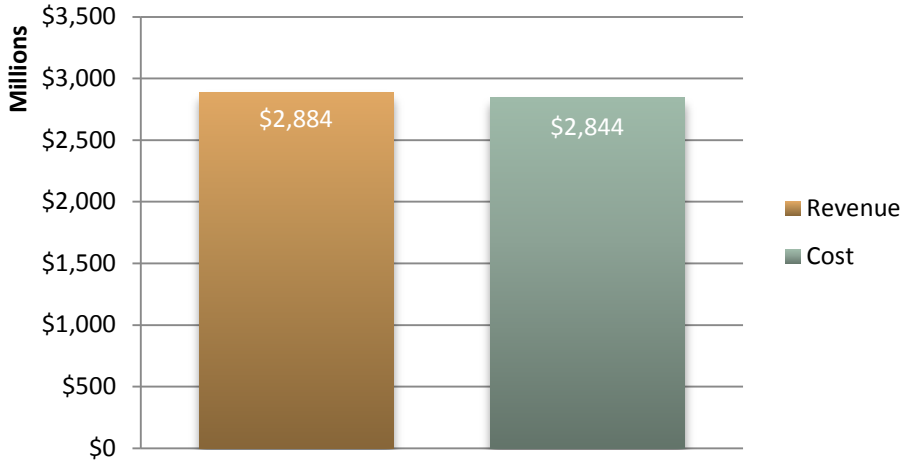
Project costs for all transportation improvement categories are $2.85 billion out to 2035, including transportation demand management and transportation system management and operations.

Transportation expenditures made up 18% of total 2005 household expenditures.

Balancing Revenues and Costs

The "fiscally constrained" test focuses on assuring that there is a reasonable expectation revenues will be available to provide for the list of projects identified on the designated regional transportation system. In comparing revenues available to Clark County to the estimated cost of regional transportation system improvements, it appears that the MTP is fiscally constrained.

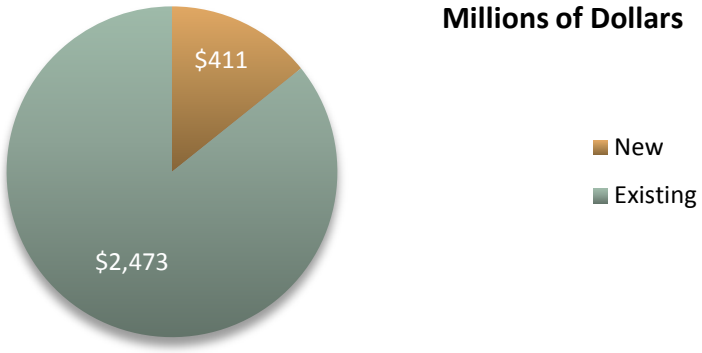
Figure 4-3: Potential revenues and estimated costs



A summary comparing potential transportation revenues and capital costs for the regional transportation system over the next 24 years

As stated earlier, this forecast recognizes the need for new transportation revenue to fund projects in the MTP. The new revenue would be the equivalent of a 10 cent gas tax implemented over six years; however, the new revenue equivalent could be manifested through several different funding strategies. The WSDOT Finance Division is analyzing a wide array of potential options being considered for new state transportation revenue including a new gas tax, gas tax linked to inflation, sales tax on gas, mileage based fees, and tolls.

Figure 4-4: Projected Revenues



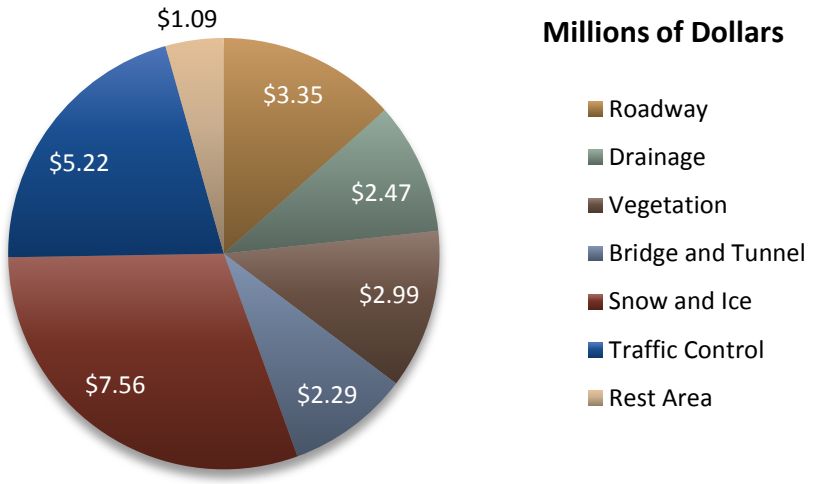
Projected transportation revenues over the next 24 years showing both existing and new revenue needed to fund the regionally designated transportation system.

System Maintenance and Preservation

Maintenance and preservation costs for state and local agencies are being estimated based on historical data from the WSDOT Finance Division and the Southwest Region. In addition to consideration of system expansion, the region needs to ensure that sufficient money is available to adequately maintain, preserve and operate the transportation system already in existence. In 2007, WSDOT reported on maintenance costs for the state highway system. The WSDOT analysis showed that in 2007 State highway maintenance costs about $27.97 per registered vehicle per year.

The following chart shows the maintenance costs by category.

Figure 4-5: Maintenance costs by category



In 2007, the cost to maintain the state highway system was $24.97 per registered vehicle. More than half that cost (52%) was for traffic control and snow and ice removal.

C-TRAN provided over 300,000 hours of fixed route service in 2010. The 2030 Plan calls for a 35% increase to 408,000 hours.

C-VAN service hours will more than double, increasing from 87,000 in 2010 to 201,000 hours in 2030.

It costs, on average, $39.4 million annually to maintain and operate the roadway system in Clark County and, over the last 10 years, Clark County and the cities in the region have spent more than 35% of their local transportation revenue on preservation and maintenance. Much of the region's infrastructure was built many decades ago and will require significant efforts in preservation, or will need to be replaced over the next three decades. Consequently, the proportion of transportation dollars needed to preserve and maintain infrastructure may increase and could require tradeoffs between making capital investment and preserving system integrity.

The estimated annual cost of operating C-TRAN's existing service is about $42.3m which is expected to rise as C-TRAN increases the size of bus fleet and expands its transit facilities in the future. C-TRAN's 2030 Plan, adopted

Maintenance can cost 4 to 8 times more when deferred.

by the C-TRAN Board of Directors in June 2010, preserves existing bus service and looks to future needs by: adding new bus routes; adding frequency on existing bus routes; constructing bus rapid transit in the Fourth Plain Corridor; and expanding paratransit service to meet growing demand.

The following table summarizes preservation and maintenance costs for local and state facilities based on historical expenditures over the last 10 years. Annual transit information is from C-TRAN's 2010 Annual Financial Report. 24-year data is from C-TRAN's 2030 Plan.

Table 4-2: Estimated Preservation and Maintenance Costs

Agency	Annual	MTP 24-years
WSDOT	$9,920,808	$238,099,399
Clark County and Cities	$29,571,880	$709,725,111
Total Roadway	**$39,492,688**	**$947,824,510**
Transit Operations	$42,294,515	$2,244,346,000

Source: WSDOT, C-TRAN

Cost of deferred maintenance

Transportation agencies are responsible for keeping the street, road, and highway system in a state of good repair through regular maintenance. These activities include sealing cracks, repairing pavement, cleaning and repairing drains, fixing signals, and sweeping streets. Major repair, rehabilitation, and reconstruction activities include repaving, reconstructing subgrade and drainage.

Agencies monitor roadway conditions and identify roadway maintenance needs through their regular pavement management systems. The timely preservation of roadway infrastructure can help assure maximizing pavement life and minimizing preservation and maintenance costs. WSDOT has estimated the cost of deferred maintenance drives up long term cost, shortens the life cycle for rehabilitation, and can cost 4 to 8 times more if delayed until pavement is in poor condition.

CRC will replace the Interstate Bridge, improve five miles of I-5, extend light rail into downtown Vancouver, and improve bicycle and pedestrian facilities.

Columbia River Crossing Project Funding Assumptions

The Columbia River Crossing (CRC) Project is a collaboration of Oregon Department of Transportation, Washington State Department of Transportation, Metro, the Southwest Washington Regional Transportation Council, TriMet and C-TRAN as well as the cities of Portland and Vancouver. Each of these sponsoring agencies is responsible for approving all or part of the project to be built. WSDOT and ODOT are leading the preliminary highway design and project management. TriMet and C-TRAN are leading the preliminary transit design and would operate the transit elements of the project. Metro and RTC are the Metropolitan Planning Organizations (MPOs) for the region and maintain the regional and metropolitan transportation plans that include the LPA for the CRC project. The Cities of Portland and Vancouver have specific permitting authority over some elements of the project. The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) are the lead federal agencies for the project.

The LPA includes a variety of transportation improvements throughout the 5-mile project corridor including: a new river crossing over the Columbia River and I-5 highway improvements with reconstruction of seven interchanges, and extension of light rail from the Expo Center in Portland to Clark College in Vancouver. Associated transit improvements include transit stations, park and rides, bus route changes, and expansion of a light rail transit maintenance facility and bicycle and pedestrian improvements throughout the project corridor.

The proposed funding sources and their assumed contributions to the finance plan represent the starting point for an action plan to secure funding for the project. The CRC project has been identified as a Project of National and Regional Significance (PNRS) and anticipates federal discretionary highway funds from the PNRS Program or other discretionary highway funds.

The finance plan anticipates securing FTA Section 5309 New Starts funds to pay for the final design and construction costs of the light rail element of the CRC project. 5309 funding, in part, is based on a ratings process established by FTA. Through this ratings process, the high capacity component of the CRC project has received a medium-high rating from the FTA which awards transit capital construction grants on a competitive basis.

The funding plan also seeks additional funds from ODOT and WSDOT as part of the multi-tiered finance plan. The package of additional ODOT/WSDOT funds must be developed through future state legislative processes and/or allocations of existing funds. Furthermore, the Governors of Oregon and Washington have stated their commitment to work with their respective state legislatures to provide state funds to add to federal funding.

Tolling is another key element of funding and is a necessary tool to help finance the CRC project. The toll rate would vary by time of day according to a set schedule. The exact cost of the toll will be determined based on the cost of the approved project, the amount of revenue provided by other sources, and the type of activities funded by the toll. Actual toll amounts will be set by the Oregon and Washington transportation commissions and legislatures.

The CRC financial analysis in the FEIS includes cost and revenue forecasts for the LPA and LPA with highway phasing project option. The LPA with Highway Phasing option would build most of the LPA in the first phase, but defers the Marine Drive flyover ramp, braided ramps at Victory Boulevard. Estimated costs and revenues for the LPA with Highway Phasing are shown on the following tables.

Table 4-3: CRC Cost Estimate[a], LPA with Highway Phasing

	Medium	High
Transit	$856.3	$944.0
Highway	$2,301.0	$2,563.8
Total	$3,157.3	$3,507.8

In Year of Expenditure, Millions

Source: Columbia River Crossing CEVP Final Report, August 2011.

[a] Medium cost estimate assumes the 60% confidence cost estimate; high cost estimate assumes the 90% confidence cost estimate.

Table 4-4: CRC Finance Plan, LPA with Highway Phasing

Revenue Source	Medium	High
Federal Discretionary Highway	$400.0	$400.0
ODOT/WSDOT: Existing	$147.3	$147.3
ODOT/WSDOT: Additional	$900.0	$900.0
Toll Bond and Loan Proceeds	$901.3	$962.4 to $1,458.4
Section 5309 New Starts Funds	$808.7	$850.0
Total Revenues	**$3,157.3**	**$3,507.8**

In Year of Expenditure, Millions

Source: Columbia River Crossing FEIS Chapter 4, Financial Analysis, September 2011

Emerging Issues to Track

Implementation of projects contained in the 2011 MTP relies on maintaining historical revenue amounts and meeting the new revenue expectations of the financial strategy. Success on this front requires addressing an array of underlying issues facing future transportation finance. These emerging issues in transportation finance include the following:

- As stated previously, the MTP cost and revenue forecast indicates that the equivalent of a 10 cent/gallon gas tax is needed for the MTP to meet the federally-required fiscal constraint test. While it meets the "reasonable" test of federal fiscal constraint provisions to anticipate these additional revenues, needless to say there are many factors that make long range revenue forecast uncertain.

- The MTP's federal transportation revenue is based on the current funding levels authorized under SAFETEA-LU being continued into the future. However, the current debate in Congress points to reduced federal funding levels in the next 6-year federal Transportation Authorization Act.

- The amount of federal and state revenues available to Clark County is affected by the return on investment of revenue generated. Recent trends have seen a return on investment from 81% to 88%.

- Gas tax revenue has been and is expected to be the main revenue source for future transportation system improvements. However, there are a host of factors that affect the amount of gas tax revenues produced. For example, the gas tax is a flat tax that does not keep pace with inflation. More fuel efficient vehicles reduce the amount of gas tax revenues generated. The MTP revenue forecast accounts for the current federal fuel efficiency standard of 27.5 mpg; it does not account for the recent announcement by the Obama Administration that would increase the fleet fuel efficiency standard to 54.5 mpg by 2025.

- In light of this, alternate approaches to collecting user fees merit consideration. In addition to the regular per gallon gas tax, other revenue concepts for examination include: gas tax linked to inflation, sales tax on gas, mileage based fees, and tolls. Technical advances have revolutionized road user fee collection approaches and may someday offer a replacement alternative for fuel taxes.

- Capturing future value in order to make investments today is a significant issue in transportation planning and investment. Historically, transportation systems in the U.S. have been financed on a pay-as-you-go basis, however, funding infrastructure with bonds also limits future flexibility to respond to changing conditions by obligating future transportation revenue for debt service.

- Project preservation and maintenance costs are based on historical data however, transportation agencies anticipate that maintenance and preservation needs may require a greater share of transportation revenues in the future due to expanded road miles to maintain and deferred maintenance.

Chapter 5: Regional Programs and Projects

Development of a Balanced Regional Transportation System

The transportation solutions include both projects and programs that will collectively support the land use goals established in local Comprehensive Growth Management Plans.

After setting a vision for this region's transportation future and assessing forecast future travel demands and transportation system performance, this chapter summarizes the range of transportation programs and transportation projects needed to meet the transportation needs of people and freight in the twenty-plus year future.

The transportation solutions include both projects and programs that will collectively support the land use goals established in local Comprehensive Growth Management Plans in this Clark County region. The mix of transportation programs and projects are also identified to reflect the MTP's transportation goals; Economy, Safety and Security, Accessibility and Mobility, Management and Operations, Environment, Vision and Values, Finance and Preservation (refer to Chapter 1).

There are transportation strategy solutions to address the travel demand side as well as transportation system supply side; strategies to increase the efficiency of the existing regional transportation system as well as strategies to provide for capacity expansion to accommodate growth. There are solutions requiring construction of capital projects and solutions requiring planning applications with consideration for multiple transportation modes.

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

This Chapter considers project and programs as well as the decision-making processes that combine to achieve the MTP's vision.

Maintenance and Preservation is important to protect the heavy investments already made in the transportation system.

Maintenance of the Existing Regional Transportation System

Of prime importance in the planning for the regional transportation system is the need to maintain the existing system. Maintenance addresses 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 incident response, filling potholes, repairing bridges, drainage ditches, guardrails, 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 MTP supports maintenance being given high priority in the programming of transportation funds and reports on funding of these needs in the MTP's Financial Plan chapter 4. The *MTP* supports the routine, regularly-scheduled and necessary maintenance work identified by local jurisdictions.

Preservation of the Existing Regional Transportation System

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, seismic retrofit and rock fall protection. Preservation needs are identified through the Pavement Management System (PMS) and local needs analysis and the MTP is highly supportive of giving prime consideration to such project needs. System maintenance and preservation is addressed in Chapter 4 of this Plan; the Finance Plan chapter.

Bridges

With the many rivers and streams in the region, bridge crossings are a vital part of the transportation infrastructure. Bridge maintenance and preservation needs are identified through the Washington State Bridge Inventory System (WSBIS) kept current by WSDOT's Bridge and Structures Office. Bridge needs can include deck preservation, steel bridge painting, seismic retrofits, movable bridge repair, and scour protection. The I-5 Columbia River Crossing Project's (CRC's) Locally Preferred Alternative (LPA) includes a replacement Interstate-5 bridge. The I-5 bridge crossing the East Fork of the Lewis River is currently on the list of structurally-deficient bridges. This bridge has a weight restriction that affects heavy trucks. Clark County maintains a list of bridges with height and weight restrictions in the County and periodically publishes a Bridge Report.

Safety

Accidents, their number, location, and type, are monitored by WSDOT and local jurisdictions and if there is deemed to be a safety deficiency then remedial measures are considered and corrective action taken. The MTP supports regional system safety projects identified through Safety Management System (SMS) planning and local plans and programs to correct safety deficiencies on the regional transportation system. The WSDOT "Strategic Highway Safety Plan: Target Zero" (SHSP; updated August 2010) was developed to identify Washington State's traffic safety needs and to guide investment decisions in order to achieve significant reductions in traffic fatalities and disabling injuries. WSDOT has identified both crossover accidents and run off the road accidents as two safety areas to focus on. RTC completed a Safety Management Assessment for Clark County in April 2011 as a tool to help identify the safety needs for the region. This report introduces the general purpose and requirements for safety planning, identifies priority factors involved in traffic fatalities, and identifies high collision intersection locations and planned improvements.

Economic Development and Freight Transportation

Economic development is linked to prevailing market conditions as well as policies that can spur economic development, such as provision of infrastructure to support new businesses. Therefore, the prosperity of a region is somewhat dependent on the provision of transportation infrastructure to support its economic development. In RTC Board discussion, economic development emerged as a prime evaluation criterion for prioritizing MTP projects. Economic development is also a significant focus of the updated Comprehensive Growth Management Plan for Clark County (September 2007) and the Board continues its commitment to have transportation system development be supportive of economic development in the region.

Freight Transportation

Approximately 55 tons of freight per person was moved in the USA in 2010

Approximately 55 tons of freight per person was moved in the USA in 2010 emphasizing the importance of freight transportation. At the statewide level, freight transportation is recognized as a vital component for Washington's economic health. The WSDOT Freight Systems Division supports Washington's freight systems by providing strategic planning for all state freight investments and directly managing the state's rail programs. Washington's Transportation Plan or WTP (Washington State Transportation Commission; December 2010) addresses freight

transportation needs. As a trade-dependent state, Washington relies heavily on an efficient freight transportation network. Forty-six percent of Washington jobs are in freight-dependent industries. Goods are shipped into, out of, and around Washington by truck, rail, air, pipeline, and water.

At the local level, the Clark County Freight Mobility Study was carried out in 2009/2010. The Clark County Freight Mobility Study was initiated to provide an understanding of the key elements of freight movement and to explain why freight and goods movement is important to Clark County's economy and employment. The Study was viewed as a first effort to describe and define the regional freight transportation system with significance for supporting industrial lands and jobs in the County. Information and data was collected, inventoried and analyzed and a good foundation laid for continuing our consideration of freight transportation as part of the metropolitan transportation planning process required of RTC, as part of the local comprehensive planning process, and as part of planning efforts of local Port districts. Work included preparation of a series of task reports to evaluate freight traffic movement, identify transportation system deficiencies related to freight and to point the way to identify future infrastructure needs as well as policy issues to support freight mobility in Clark County.

The Clark County Freight Mobility Study Summary Report provides an overview of the work conducted for the Study and its key recommendations as outlined in Table 5-1.

Table 5-1: Summary of Clark County Freight Mobility Study Strategies and Future Action Items

Process	Strategies to Support Freight Transportation
Regional Freight System and Economic Development	Invest in freight mobility to support industrial development goals and job creation
Identify Needs and Projects	Support road improvements that benefit freight mobility Support rail improvements
Design	Develop model design guidelines for complete streets and freight Plan and design for local truck access to Clark County business sectors
Land Use and Transportation Integration	Land use and transportation coordination: protect viability of industrial lands and livability of residents Manage access to industrial areas
Funding	Position projects for funding

Figures 5-1 and 5-2 are maps showing industrial and commercial lands in Clark County and the transportation system that connects these lands to their markets. Figure 5-1 shows the MTP's Designated Regional Transportation System with Comprehensive Plan designated industrial and commercial lands in the County. These are lands which need to be served by freight transportation. Figure 5-2 shows WSDOT's Freight and Goods Transportation System (FGTS) with the Clark County designated industrial and commercial lands.

Figure 5-1: MTP's Designation Transportation System and Clark County Commercial and Industrial Lands

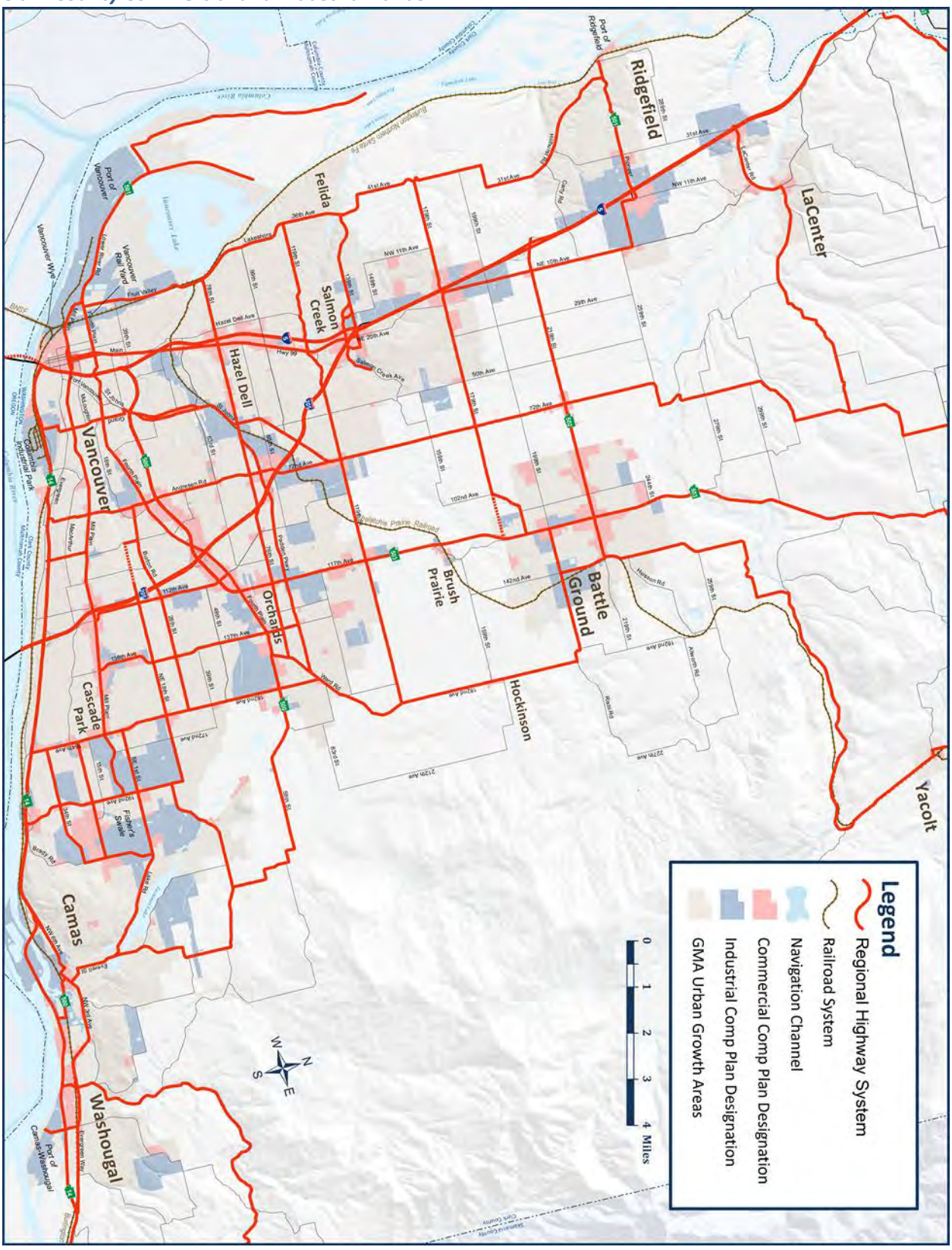
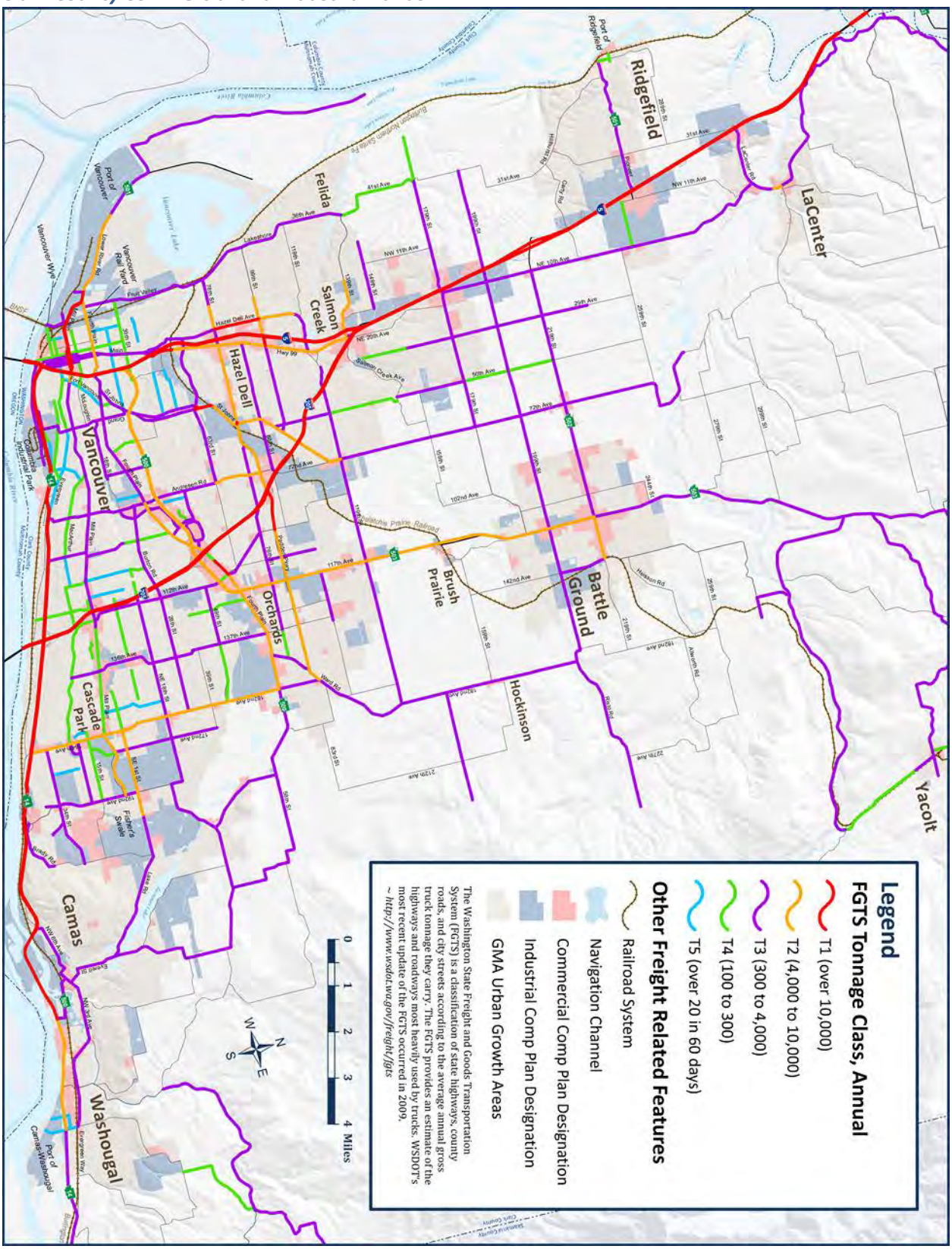


Figure 5-2: WSDOT Freight & Goods Transportation System and Clark County Commercial and Industrial Lands



The total freight tonnage moved by the rail system in Washington State is expected to increase by about 2 to 3 % annually over the next 20 years.

Freight Rail

In Washington State, freight rail needs are addressed in Washington State Department of Transportation's (WSDOT's) Washington State 2010-2030 Freight Rail Plan (WSDOT State Rail and Marine Office, December 2009). The Plan meets both federal requirements (Public Law 110-432, Division B) and the state requirements of RCW 47.76.220 and serves as a blueprint for investment in the rail system. The Study notes that Washington State requires a robust rail system that will provide effective and efficient transportation critical to maintaining our economy, environment and quality of life. The Plan is designed to support Washington's economic competitiveness and economic viability, preserve the ability of the state's freight rail system to efficiently serve the needs of its customers, facilitate freight system capacity increases to improve mobility and reduce congestion and take advantage of freight rail's modal energy efficiency to reduce the negative environmental impact of freight movement in Washington.

The total freight tonnage moved by the rail system in Washington State is expected to increase by about 2 to 3 % annually over the next 20 years which will mean many more rail lines operating at or above their practical capacity.

The "Portland and Vancouver International and Domestic Trade Capacity Analysis" (Port of Portland et al; 2006) also provides an assessment of the outlook for rail. The Study concluded that while the tonnage of goods will double between 2006 and 2035, the rail's share of total tonnage is forecast to drop because of the continuing structural shift in the economy toward industries and trade that generate lighter, higher-value, freight shipments. Nevertheless, rail tonnage will increase. The Pacific Northwest (Washington and Oregon) will grow faster than the national average. Therefore, the region will see a doubling or more of freight demand. In the Portland/Vancouver region, total freight tonnage is expected to grow from about 300 million tons today to 600 million tons in 2035. Demand for rail will grow more slowly than truck, but rail will carry about 50% more tonnage than it does today. The Portland/Vancouver region generates about 35 million tons for rail today and this will grow to over 56 million tons by 2035.

The Vancouver Rail Project, to add new Vancouver Yard rail bypass tracks, funded as one of the state "nickel package" projects, is scheduled for completion in 2013 and the 39th Street Bridge over the rail tracks is complete. The intent of the Vancouver Rail Project is to increase safety, reduce rail congestion, and improve the on-time performance of Amtrak's passenger rail service. The Port of Vancouver continues to plan for and implement the West Vancouver Freight Access Project to support the Port's development, improve freight rail access to the Port and open up the Port's Gateway area. A project to provide a grade-separated crossing of the main BNSF north/south rail-line to improve access to the Port of Ridgefield is included in this MTP.

Marine Freight

Freight also travels to and from our region via the Columbia River. The primary marine port in Clark County is the Port of Vancouver, located on the Columbia River. The Port emphasizes the importance of channel depth to its activities so that sizeable ocean-going vessels are not precluded from use of the Port. In November 2010, the final portion of the 110 mile lower Columbia River navigation channel from the Port of Vancouver to the mouth of the Columbia River was deepened to 43 feet. This deeper channel allows larger ships to import and export cargo more efficiently that benefits trade in the region. Nearly 40 percent of the nation's wheat is exported down the Columbia River so this transportation corridor impacts both farmers in the region and across the nation.

Air Freight

As noted in Chapter 3, the Clark County region relies heavily on access to the Portland International Airport in Oregon for air freight needs.

Active Transportation: Non-Motorized Modes

The Metropolitan Transportation Plan supports the development of pedestrian and bikeway facilities to both access the transit system and for use as healthy, alternative transportation modes. Local jurisdictions program projects to provide for better connectivity in the pedestrian and bicycling facilities throughout Clark County. Local transportation elements of the Comprehensive Plans for the County and each city include recommendations for active transportation modes.

Clark County Bicycle and Pedestrian Master Plan

In November 2010, the Board of Clark County Commissioners approved the Clark County Bicycle and Pedestrian Master Plan to make it safer and more convenient for people to get to major destinations in our region on foot or by bicycle. The plan identifies ways to improve the transportation network by integrating existing sidewalks, bike lanes and trails. The Plan points out this will require design standards that work well with Clark County's transportation network for motor vehicles. The Plan's Executive Summary outlines this 20-year vision and implementation strategy that seeks to increase the number of people walking and bicycling while improving safety throughout the County.

Walking and cycling are healthy transportation modes.

However, there are challenges in implementing the Bicycle and Pedestrian Master Plan because of interstate freeway barriers, discontinuous networks, topography and funding. A list of priority pedestrian and cycling infrastructure projects are identified in the Bicycle and Pedestrian Master Plan.

Regional Trail and Bikeway System Plan

The Clark County Regional Trail & Bikeway Systems Plan was approved in 2006 and is intended to guide development and design of an interconnected trail and bikeway system within Cark County. The Plan provides recommended improvement to the existing and proposed regional trail corridors. The 2006 Plan encompasses 16 regional trails. The Plan envisions a trail network of nearly 240 miles of regional trails and bikeways in Clark County and is the next step toward providing citizens and visitors transportation alternatives to daily vehicle trips and safer, more accessible opportunities for a healthier lifestyle. The Plan notes it has "one foot in the transportation system and one foot in the parks system and it needs both feet to work". Trails outlined in the Plan are: Lewis & Clark Discovery Greenway, Chelatchie Prairie Railroad, Lake to Lake, Salmon Creek Greenway, Padden Parkway, I-5 Corridor, I-205 Corridor, East Fork of the Lewis River, Battle Ground/Fisher's Landing, Washougal River Corridor, North Fork of the Lewis River Greenway, Whipple Creek Greenway, North/South Powerline, East Powerline, Livingston Mountain Dole Valley, Camp Bonneville and Lower Columbia River Water Trail. The Plan seeks to develop a seamless trail and bikeway system throughout the region. As such, the developed and planned trail and bikeway facilities were reviewed to complete a gap analysis of the existing system. The Plan also contains design guidelines and notes the cultural and historic resources this region possesses that can be enjoyed through trails development.

The Intertwine works on bi-state planning for regional trails. Intertwine publishes the Portland-Vancouver Bi-State Regional Trails System Plan.

Access to Transit by Walking and Bicycling

Also of regional significance is improvement of pedestrian and bicycle facilities that will improve access to transit facilities. There are many areas where coordinated efforts to improve pedestrian facilities will improve access to transit. Bike racks are already provided on C-TRAN fixed-route buses and bike lockers are provided at C-TRAN Transit Centers and Park and Rides.

Walking or cycling to school is an option when the route is safe.

Bicycle and Pedestrian System Design Standards

Local jurisdictions have adopted design standards for arterials that include sidewalks and bicycle facilities. Both bicycle and pedestrian facilities are integral design elements in road projects. As roads are upgraded throughout the County then bicycle and sidewalks are added.

Safe Routes to School

Local jurisdictions work in partnership with School Districts on a Safe Routes to Schools Program to identify transportation improvements that can improve safe access to schools. These improvements can include signage, curb cuts, sidewalks, crosswalks, bike lanes and bike paths. They should also include enforcement of traffic rules to ensure a safe journey to school and encouragement of bike and walk modes for school students.

Transportation Demand Management (TDM)

TDM is about reducing auto trips, shortening some, eliminating others and making our transportation system more efficient. The MTP supports TDM as a strategy to maximize the efficiency of the existing transportation system. Transportation demand management strategies to reduce vehicle trips on the regional transportation system can include use of transit, carpooling, vanpooling, working of flexi-hours and/or compressed work week, and working from home with use of communications technology, known as telecommuting. There are numerous TDM strategies that can be put into place to increase transportation system efficiencies.

Commute Trip Reduction

In 2006, the Commute Trip Reduction Efficiency Act (RCW 70.94.527) was passed by the Washington legislature. The 2006 law took the place of the Commute Trip Reduction law passed by the Washington State legislature in 1991. Following the 2006 law, the CTR program is now designed to ensure that CTR plans and employer goals are coordinated with transportation and growth plans. The CTR program now focuses on Urban Growth Areas (UGAs) with the most congested state highways. These Urban Growth Areas are the areas with greatest need and potential benefit to be derived from CTR programs. Within Clark County, these Urban Growth Areas are Vancouver, Camas and Washougal as well as the unincorporated Clark County portion of the Vancouver UGA. The overall goals of the CTR program are to improve transportation system efficiency, conserve energy, and improve air quality by decreasing the number of commute trips made by people driving alone.

The Washington State CTR program requires that local jurisdictions, Regional Transportation Planning Organizations (RTPOs), major employers, transit agencies, WSDOT, and the CTR Board work collaboratively. During 2007, Commute Trip Reduction Plans were developed for jurisdictions and the region. Guidance on implementation and update of the Plans is provided through Washington Administrative Chapter 468-63. In early October 2007, the RTC Board of Directors

adopted the Southwest Washington Regional Transportation Council, Draft Regional Commute Trip Reduction Plan, endorsed the local CTR Plans for the City of Vancouver, Unincorporated Clark County, City of Camas and City of Washougal, and certified the Downtown Vancouver Growth and Transportation Efficiency Center voluntarily developed by the City of Vancouver. (RTC Board Resolution 10-07-21)

The Clark County Smart Commuter website provides access to information for people interested in CTR, in finding alternative transportation solutions and in ride matching solutions. Also, within the Portland/Vancouver Metropolitan area, Drive Less Connect provides additional information.

Local CTR Plans

The local CTR plans developed by the City of Vancouver, Unincorporated Clark County, City of Camas and City of Washougal analyze local conditions, establish goals and suggest a funding plan and program recommendations to achieve compliance with performance goals in the Act. All local CTR Plans in the Clark County region set the goals of a 10% reduction in trips, the equivalent of a 13% reduction in vehicle miles traveled. Local jurisdictions must update ordinances to reflect their CTR plans and local comprehensive Plan updates are expected to reflect the requirements of the CTR program and to support its successful implementation.

Regional CTR Plan

Under the CTR Efficiency Act, the MPO/RTPO is required to develop a regional CTR plan. The purposes of the Regional CTR plan are to:

1. Describe Regional Land Use and Transportation Conditions,
2. Establish Minimum Criteria for Growth and Transportation Efficiency Centers,
3. Establish Regional Program Goals and Targets,
4. Describe how Progress will be Measured,
5. Describe Planned Local Services and Strategies for Achieving Goals and Targets and
6. Provides a Sustainable Financial Plan.

The overall goals of the CTR program are to improve transportation system efficiency, conserve energy, and improve air quality by decreasing the number of commute trips made by people driving alone.

RTPOs with a regional CTR plan have to submit an annual progress report to the CTR Board. The report includes description of progress toward achieving the regional CTR goals and targets.

Currently, there are fifty-eight CTR affected worksites in Clark County. Another seven worksites participate voluntarily in the CTR program. The Clark County Commute Trip Reduction report card for 2005 to 2007 indicated the CTR program resulted in 4,372,745 fewer vehicle miles traveled. The program in 2005 to2007 also reduced CO_2 emissions by 2,076 tons per year and saved 212,491 gallons of fuel. 2009 to 2011 report card data will be available shortly.

Growth and Transportation Efficiency Centers (GTECs)

Under the CTR law, local jurisdictions have the option to propose Growth and Transportation Efficiency Centers (GTECs) that allow flexibility in implementing CTR programs. RTPOs, such as RTC, have to certify GTECs proposed by local jurisdictions before they can be forwarded to the state for funding eligibility consideration. The City of Vancouver analyzed two potential GTECs in Downtown Vancouver and the area of Columbia Tech Center in east Vancouver and in 2007 year submitted the Downtown Vancouver GTEC for state funding consideration. The GTEC proposal is voluntary on the part of City of Vancouver but outlines a higher goal for trip reduction in an area where employment is concentrated.

Transportation System Management and Operations (TSMO)

Transportation System Management and Operations are also strategies to maximize the efficiency of the existing transportation system. In June 2011, the RTC Board adopted RTC's first Transportation System Management and Operations Plan.

The long range Transportation System Management and Operations plan formulates the first ever set of transportation system management goals and objectives, strategies, and performance measures for the Clark County region. The TSMO Plan itself builds upon the long and successful track record of the Vancouver Area Smart Trek program by updating the VAST Intelligent Transportation System Strategic Plan, and the ITS architecture. The adopted plan establishes a set of system operation strategies to promote an efficient and cost-effective use of existing transportation facilities. The plan seeks to increase the coordination of investment decisions across transportation system investments such as: capacity expansion, transportation demand management, and access management. The plan also establishes a transportation data archive to make transportation data easily accessible and provide information to support performance measurement, monitoring of system operations, and analysis of improvement strategies.

The adopted TSMO Plan establishes a set of system operation strategies to promote an efficient and cost-effective use of existing transportation facilities.

The purpose of the TSMO Plan is to enhance the active management and operations of the existing regional transportation system. TSMO goals include the following: improve travel time reliability, reduce crashes, and improve transit on-time performance. By reducing travel delay, fuel consumption and air pollution are also improved. TSMO strategies focus on lower cost operational and multimodal projects that are regionally coordinated and which better utilize existing transportation facilities. These strategies can include a wide range of projects such as: traveler information, freeway management, arterial management, coordinated

incident management, and transit signal priority. The Plan identifies a set of TSMO corridors where the application of operational strategies can be effective tools to improve reliability and performance. An important part of the TSMO Plan is to monitor the effectiveness of TSMO strategies and other improvements through the use of performance measures. A Clark County transportation data warehouse is established to provide the transportation data needed to monitor TSMO improvements and system performance.

10-Year TSMO Implementation Plan

The Regional TSMO Implementation Plan provides the connecting bridge in the TSMO planning process between plan and project implementation (see Implementation Plan cost summary tables on TSMO Plan report pages 95, 96). The TSMO corridors and associated operational strategies are identified to achieve the TSMO Vision. The Implementation Plan is linked to the TSMO corridors and strategies by identifying the technology and equipment needed to implement the operational strategies, and therefore, guides the deployment of projects necessary to carry out the region's TSMO vision. Figure 5-3 is a map of the TSMO Corridors. The map also shows "corridor readiness" which indicates how much infrastructure is already in place or programmed and how much additional is needed to implement the 10-year Plan. Table 5-2 is a summary listing of TSMO strategies by transportation corridor.

Figure 5-3: TSMO Corridors

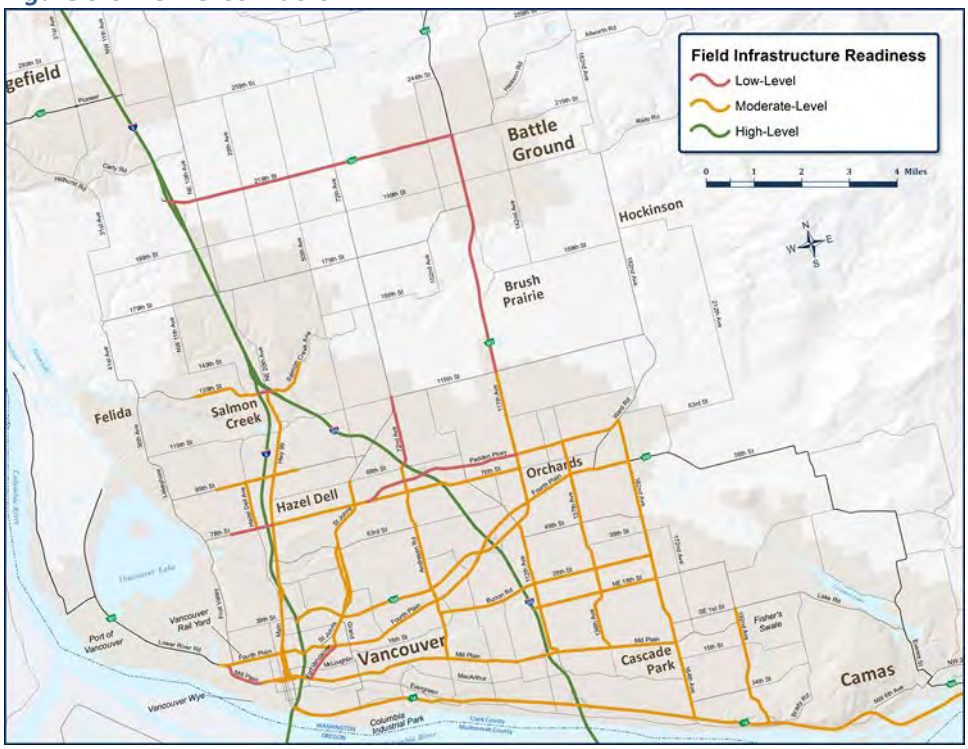


Table 5-2: TMSO Strategies by Corridor, 10-Year Implementation Plan

TSMO Corridor	Cost	ITS Infrastructure Readiness	Communications backbone	Transit Signal Priority	Truck Signal Priority	Video Surveillance-CCTV	Ramp meters	Data Collection	Signal technology upgrades	Variable Message Signs
I-5	$1,300,000	H					*			*
SR-14	$1,142,500	M	*			*		*	*	*
I-205	$65,000	H				*				
SR-500	$1,005,250	M	*			*		*	*	*
Other East/West Facilities	$6,422,000	L/M	*	*	*	*		*	*	
Other North/South Facilities	$5,753,000	L/M	*	*		*		*	*	
Total Costs	**$15,687,750**									

H/M/L refers to "high", "moderate", and "low" levels of infrastructure readiness.

Intelligent Transportation System (ITS)

Like TSMO, ITS is a part of the transportation tool kit to better manage the transportation system. The key difference is that ITS uses real time information to integrate and manage conventional transportation system components such as roads, transit, ramp meters, traffic signals, and managing incidents for more efficient operations and performance. ITS uses advanced technology and information to improve mobility and productivity and enhance safety on the transportation system. ITS includes

1. Communications infrastructure,
2. Traveler information such as websites, variable message signs, kiosks, television, radio, phone, and highway advisory radio using both static and real-time information,
3. Incident management with early incident detection and a coordinated effort to respond to and clear roadway incidents able to greatly reduce their impact on congestion and delay,
4. Transportation management including the operation of all functions, devices and systems installed or developed for managing freeways and arterials such as transportation management centers for the freeway and arterial network for the coordinated management of the transportation system,
5. Transit Priority providing priority for buses at traffic signals under certain conditions to make transit more efficient and attractive to travelers,
6. Transit Operation and Management including transit traveler information systems delivering real-time bus arrival information to transit patrons using changeable message signs, the internet and other communication devices and transit agency operations and management.

C-TRAN's VAST projects include automatic vehicle locators, automatic passenger counters, and automated ADA call-outs, real time next bus information at transit centers, and computer aided dispatch.

C-TRAN provides mobility options to connect people to jobs, education, healthcare, shopping and entertainment.

"Public Transit Takes Us There!"

Transit

Transit system improvements are supported in the MTP. The transit transportation mode supports the land use goals established in local Comprehensive Plans developed under the Growth Management Act; plans that envision denser, transit-oriented developments in growth centers and in primary transportation corridors. Transit service expands transportation corridor capacity by providing more person throughput, helping the transportation system operate more effectively along transit corridors. Transit is also important in meeting the mobility needs of those unable to drive automobiles because of age, infirmity, disability, or low income. In addition, transit provides a viable option for those who have automobiles but choose the convenience and cost savings of using transit for their commute and other local trips.

C-TRAN adopted a 20-Year Transit Development Plan, C-TRAN 2030, in June 2010. C-TRAN 2030 provides the framework on which to build public transportation to support the future transportation needs of Clark County. It sets in place a plan to preserve existing service levels with improvements that include two new bus routes in east Vancouver, increased frequencies on many existing bus routes, meeting the growing demand for paratransit service for people with disabilities (C-VAN), two new park and rides (one at I-205/18th Street vicinity and one at I-5/219th Street vicinity) with increased commuter service to downtown Vancouver and Portland, C-TRAN's first bus rapid transit line with service along Fourth Plain Boulevard, and operations and maintenance costs of light rail in downtown Vancouver as part of the Columbia River Crossing Project. The 20-Year TDP includes transit routes, platform hours, and assumed capital and operating costs. The assumed improvements are now incorporated into the MTP's regional transportation system map and into the Regional Travel Forecasting Model. C-TRAN service improvements are described in MTP Chapter 4, Financial Plan.

High Capacity Transit (HCT)

Prior to adoption of C-TRAN 2030 (C-TRAN, June 2010), the RTC Board adopted the Clark County High Capacity Transit System Study in December 2008 following a two-year planning process. The HCT Plan provides a blueprint for C-TRAN and the Clark County region to move High Capacity Transit improvements forward in identified HCT corridors. The HCT System Study is based on the assumption that traffic volumes will increase as planned growth and economic development continues. The constrained ability to expand highway capacity in a number of key regional transportation corridors is expected to cause traffic congestion to worsen thus increasing the need to develop a transportation alternative. The HCT System

The Human Services Transportation Plan provides a framework for identifying the transportation needs of the aged, people with disabilities and low income workers.

Study's Executive Summary is incorporated into C-TRAN 2030 as outlined in the Transit section above and is available as part of the C-TRAN 2030 Plan.

The HCT System includes a set of the most promising HCT corridors now included in the MTP's Regional Transportation System map as a framework element. A key finding of the study is that while design of a good HCT system is critical, it is not enough to ensure successful HCT project implementation. A well designed set of HCT facilities needs to be complemented by policies that address:

1. Transit supportive land use strategies,
2. Collaboration among public agencies,
3. Commitment to the project at both political and staff levels,
4. Continued public engagement and support, and
5. Actions by public agencies to amend and implement HCT policies.

The HCT System Plan provides a long-term framework for C-TRAN and the Clark County region to move forward to implement transportation improvements in identified HCT Corridors. However, before any HCT project can move forward, final mode and alignment issues would be determined through the defined Federal Transit Administration's New Starts process which includes alternatives analysis as part of the process. The HCT project element now included in the fiscally-constrained MTP is alternatives analysis planning for the Fourth Plain Transit Improvement Project, from downtown Vancouver to Vancouver Mall vicinity. The MTP also includes the I-5 Columbia River Crossing Project's Locally Preferred Alternative (LPA, June 2008) to construct a replacement Interstate-5 Bridge and extend Light Rail Transit into Clark County with a terminus in the vicinity of Clark College.

Coordinated Human Services Transportation Plan (HSTP)

SAFETEA-LU-required that a Human Services Transportation Plan be developed to expand on the existing Job Access and Reverse Commute (JARC) program to address the needs of the aged, people with disabilities as well as low income workers. By identifying the transportation needs of the aged, low income and people with disabilities, the HSTP provides a framework for project identification and development to meet these transportation needs. Development of an HSTP is a condition for receiving formula funding under three Federal Transit Administration (FTA) programs:

1. Section 5310, Special Needs of Elderly & Individuals with Disabilities,
2. Section 5316(g), Job Access and Reverse Commute, and
3. Section 5317(f), New Freedom.

The JARC program is to fill gaps in employment transportation to provide access to jobs for previous welfare recipients and low-income workers and to provide transportation for those who may live in the city core and work in suburban locations. New Freedom funds are to support new public transportation services and transportation alternatives for individuals with disabilities. New Freedom funds should be used for transportation services beyond those required by the Americans with Disabilities Act. The RTC Board adopted the first HSTP for the region in January 2007 (RTC Board Resolution 01-07-02) and updated the Human Services Transportation Plan for Clark, Skamania and Klickitat Counties Plan in December 2010 (RTC Board Resolution 12-10-25).

Aging Readiness

With the growing numbers of population aged over 65 in Clark County, the County took a pro-active step to plan for a future with this changing demographic. Clark County is anticipating rapid growth in our aging residents. By 2025, one in four residents will be 60 or better and people older than 85 will increase by 50 percent. Ideas gleaned from workshops, surveys, and best practices from other communities were used to develop a Draft Aging Readiness Plan. The plan assesses the county's readiness to serve as a home for an aging population and identifies necessary resources and services not in place at this time.

Commuter Rail / Rail Capacity Issues

RTC completed a Commuter Rail Feasibility Study in May 1999. The purpose of the Study was to determine if commuter rail has the potential to serve as a low cost option to improve bi-state travel mobility by making more effective use of the existing Burlington Northern Santa Fe rail transportation corridor between Vancouver and Portland. Commuter rail provides passenger service by shared use of rail tracks with freight operators and other rail users. The Study examined critical issues in the implementation of commuter rail and included: schedule reliability, operations, the impact of shared use with freight and inter-city passenger needs, capital and operating costs, and ridership. The findings of this feasibility study indicate that a commuter rail system should not be pursued unless a major rail investment necessary to support future intercity passenger and freight rail growth in the corridor is to be made.

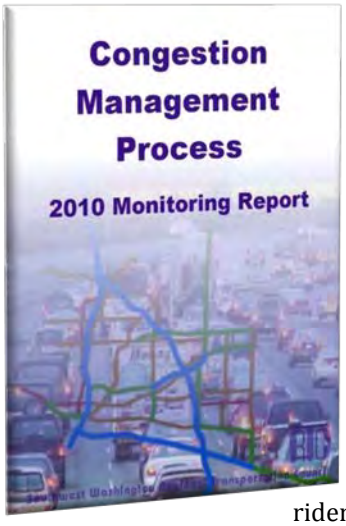
In 2002 the question of commuter rail was again revisited as part of the I-5 Partnership. Findings concluded that commuter rail service cannot operate effectively on the freight rail network over the next 10 to 20 years, even with the identified incremental and additional network improvements. Commuter rail service could be instituted only on a separated passenger rail-only network. A separate passenger rail-only high speed rail system would improve intercity passenger rail service and could drive the feasibility of commuter rail. The cost of separated passenger network could be of the order of magnitude of $1.5 to $1.7 billion.

Transportation Management Areas (TMA's)

The Clark County region was designated as a Transportation Management Area under the federal Transportation Act, ISTEA, in 1991. The region is designated as a TMA because it has a population greater than 200,000. In addition to meeting all the specified metropolitan transportation planning process requirements, MPO's representing Transportation Management Areas must meet additional requirements. In TMAs, the MPO must have a Congestion Management Process that provides for the effective management of new and existing facilities through the use of travel demand reduction and operational management strategies. In air-quality non-attainment TMAs, highway capacity expansion projects that result in a significant increase in single occupancy vehicles can only be programmed if consistent with the Congestion Management System. The CMP serves as the process for identifying deficient regional travel corridors, for evaluating non-SOV alternatives to address congestion, and for managing the performance of the system.

Congestion Management Process (CMP)

SAFETEA-LU requires development of a Congestion Management Process. RTC's Congestion Management Process was first adopted by the RTC Board in April 2006. The Congestion Management Process includes:



In 2010, RTC issued its eleventh annual Congestion Monitoring Report which continues the collection and reporting of baseline transportation data.

1. Identification of congestion management network,
2. Monitoring and analysis of system performance to identify needs, and
3. Implementation of identified needs.

In September 2011, the RTC Board endorsed the *2010 Congestion Management Report*. The Congestion Management Monitoring project focuses on delivering improved transportation system performance information to decision-makers who must identify the most cost-effective strategies for addressing transportation congestion and improving mobility. Prior to 2000, the transportation system performance reported in the Congestion Monitoring Report focused on a single corridor congestion index for each of the congestion management corridors. Over time, the report has been expanded to include travel time, speed, vehicle occupancy, transit ridership, bus capacity, intersection delay, areas of concern, and other transportation system related information. The 2010 Congestion Monitoring Report is the eleventh year for publication and continues the collection and reporting of baseline data.

Transportation Planning and the Environment (including environmental mitigation)

The interrelationships between transportation planning, project development and both natural and human environments are acknowledged in federal, state, regional and local policies and practices. Regional MTP policies include a policy that specifically addresses the environment, "Protect environmental quality and natural

resources and promote energy efficiency". Provision of a transportation system to meet travel needs should be balanced with the need to protect the environment and provide for a healthy community. Environmental considerations and stewardship include air quality, climate change, stormwater, noise, curbing urban sprawl, habitat, cultural resource protection, historic preservation, environmental justice, active living, and neighborhood structure. As transportation projects are developed, environmental analyses are carried out to ensure that identified environmental impacts can be avoided, minimized and/or mitigated.

Air Quality

Mobile emissions are a significant source of air pollution. Mobile source emissions can be minimized through increased use of non-motorized transportation modes, through increased transit use, through transportation systems management measures (such as inter-connecting traffic signals and enhanced timing of signals) and travel demand management techniques (such as flex-time work, parking charges, carpooling and vanpooling programs); all supported by the MTP. Mobile emissions can also be reduced through technology-based transportation command and control measures, such as enhanced emissions testing (I/M) programs, expansion of I/M and fuel requirements.

Under the 1997 8-hour federal Ozone standard, the Vancouver/Portland Air Quality Maintenance Area (AQMA) was reclassified from "maintenance" to "unclassifiable/attainment" for Ozone and no longer needs to demonstrate regional air quality conformity for Ozone. The implementation plan currently in effect for ozone is the 2006 Ozone Maintenance Plan for Vancouver, Washington. The plan demonstrates compliance with the 8-hour ozone standard through 2015 and contains an ozone contingency plan to prevent or correct any measured violation of the 8-hour ozone standard.

The Vancouver AQMA is currently designated as a Carbon Monoxide maintenance area. The 2007 second 10-Year Limited Maintenance Plan for Carbon Monoxide in the Vancouver AQMA is approved by EPA (73 FR 36439; June 27, 2008). Based on the population growth assumptions contained in the Vancouver Limited Maintenance Plan and the LMP's technical analysis of emissions from the on-road transportation sector, it was concluded that the area would continue to maintain CO standards. Therefore, regional conformity is presumed and regional emissions analyses and emission budget tests are no longer required.

While areas with approved maintenance plans are not subject to the budget test, they are subject to meeting other transportation conformity requirements of 40 CFR part 93, subpart A, which include timely implementation of SIP transportation control measures, transportation plans and projects that comply with the fiscal constraint requirement, interagency consultation and that conformity determinations should be made at least every four years. Projects are still subject to air quality conformity analysis to ensure they do not cause or contribute to any new localized carbon monoxide violations.

Mobile emissions are a significant source of air pollution.

The SIP for Washington State includes an enhanced I/M vehicle emissions testing program for the Vancouver portion of the Portland-Vancouver Air Quality Maintenance Area. Washington's vehicle emission inspection program was added to the Vancouver urban area in 1993 and expanded to Brush Prairie, Battle Ground, Ridgefield and La Center in 1997. The program will continue through the end of the 20-Year CO Maintenance period unless it is removed from the SIP.

The Limited Maintenance Plan does not include mobile source Transportation Control Measures (TCMs) for the Vancouver Air Quality Maintenance Area, however, several tiered contingency measures are listed in the LMP that could be triggered in the event that the triennial emission inventory shows that annual county-wide on-road mobile emissions have increased over 2005 levels. The escalating responses include: confirmation of emissions inventory methodology, evaluation of "other" source categories, temporary CO "hot spot" monitoring, and reinstitution of oxygenated fuels.

Air Quality Conformity Determination

It is determined that the 2011 update to the Metropolitan Transportation Plan (MTP) for Clark County does not contribute to violations of ozone or carbon monoxide emission standards.

Water Quality

Transportation projects must address water quality impacts. Water quality is a significant issue in the Pacific Northwest. Transportation projects often include measures to mitigate for the construction of impervious surfaces. Bioswales and street trees are becoming part of the design for many transportation projects. Another issue that relates to water quality is the listing of certain species, such as the Pacific salmon species, under the Endangered Species Act.

Greenhouse Gases (GHG) and Climate Change

Executive Order 09-05, Sections 2(a) and 2(b):

On May 21, 2009, Governor Gregoire signed Executive Order 09-05: Washington's Leadership on Climate Change. Sections 2(a) and 2(b) related to RTC as one of the four largest Regional Transportation Planning Organizations in the state. RTC has been an active participant in both the process for developing the Section 2(a) report submitted on December 29, 2010, and in the Section 2(b) process which will be completed with a report delivered to the Governor by December 1, 2011.

WSDOT established an Executive Order Working Group to work collaboratively with the four largest RTPO's as well as the Departments of Ecology and Commerce. The working group was charged with the following:

The MTP identifies the multi-modal capital projects to meet the region's 2035 needs.

1. Estimate current and future statewide levels of VMT,
2. Evaluate changes to the VMT benchmarks, RCW 47.01.440, as needed to address the emergence of low or no-emission vehicles, and
3. Develop additional strategies to reduce greenhouse gas emissions from the transportation sector.

RTC was an active member of the working group.

Greenhouse gas reduction strategies from the transportation sector fit into four broad categories:

1. Operating the system more efficiently,
2. Advancing vehicle technology,
3. Improving fuels and
4. Reducing VMT.

WSDOT's analysis suggests that there is no silver bullet and major contributions from each of the strategies will be needed to reduce GHG emissions.

The development of the 2011 MTP Update has addressed the section 2(b) requirements. The focus has been on identifying which strategies in the MTP will help to reduce statewide GHG emissions and help to meet statewide VMT reduction benchmarks. It is important to clarify that the Executive Order calls for a voluntary effort on the part of the RTPO's. The RCW's for both GHG emission reductions and VMT reduction benchmarks are charged to the state, not to any region. The report to the Governor is directed toward what strategies the regional transportation plans have and/or are developing regarding GHG reduction and which strategies have the greatest potential to help the state achieve the VMT benchmarks. RTC's MTP update does not nor is it required to include any specific GHG emissions or VMT reductions. However, consistent with local, regional, state and national transportation policies, the plan does include strategies and project recommendations that support GHG and VMT reductions.

In addition to the listing of GHG and VMT reduction strategies, the final report on EO Section 2(b) will address which strategies appear to have the greatest potential to achieve the VMT benchmarks and which policy and funding issues need to be resolved before leading to possible implementation.

MTP Regional System Improvements

Figure 5-4 is a map showing identified capacity improvements on the regional transportation system. The map shows the location of transportation capital projects identified as needed through the metropolitan transportation planning process to address safety and/or level of service issues. This map locates projects listed in Tables 5-3 and 5-4. Table 5-3 includes identified projects on the MTP's designated regional transportation system (described in MTP Chapter 3) that are already funded but are not yet constructed which amount to over $448 million.

Table 5-4 includes projects on the MTP's Designated Regional Transportation System which do not yet have a funding source but for which funds are likely to be available during the term of the MTP to year 2035; in other words, they are "fiscally-constrained" projects. These MTP projects amount to over $2.8 billion. Combined, MTP regional system projects in Tables 5-3 and 5.4 total to over $3.2 billion needed within Clark County in regional transportation infrastructure investment over the next 24 years.

In addition to projects on the MTP's designated regional transportation system, local transportation projects are also included in RTC's Regional Travel Forecasting Model so the model is reflective of the whole transportation system.

There is a wide array of transportation system programs and improvements which will contribute to the development of a balanced regional transportation system. Even with the extensive list of transportation improvements, increased congestion can be expected on Clark County's transportation system by the year 2030. In many of the transportation corridors, further system expansion through widening of existing highways will not be feasible. Therefore, it is imperative that this region continue to develop a more balanced transportation system to create transportation options for its residents and to encourage use of alternative transportation modes.

Transportation solutions identified in the Metropolitan Transportation Plan (MTP) require programming for funding. It is in the regional Metropolitan Transportation Improvement Program (MTIP) that federal funds are programmed. Decisions on funding and phasing of regional transportation projects are made during the development process for the Metropolitan Transportation Improvement Program (MTIP) and projects that use local funding are programmed in the local Transportation Improvement Programs developed each year by individual local jurisdictions.

Figure 5-4: MTP Regional System Improvements

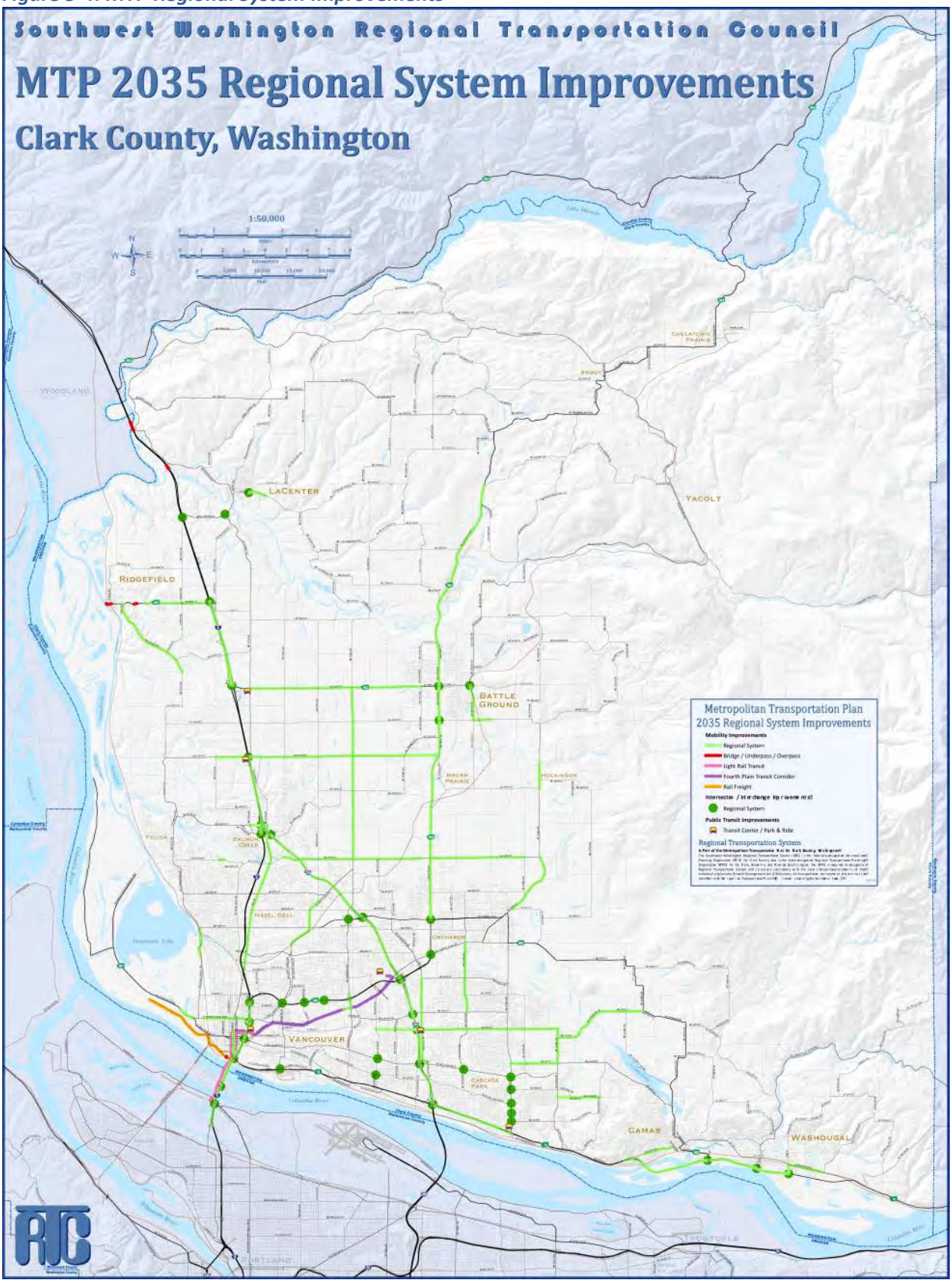


Table 5-3: Funded Projects, MTP Designated System

	Cross Streets	Project Description	Existing Condition	Est. Year of Completion	Jurisdiction/ Agency	Project Cost Estimate
I-5	The Salmon Creek Interchange Project (SCIP) at 134th/139th Street	Construct NE 139th St. from NE 20th Ave. to NE 10th Ave. Reconstruct interchange with ramps added at 139th St. Auxiliary lanes I-205 to 179th St. NE 10th Ave. Improve NE 10th Ave. from 134th to 149th St. with turn lanes	Interchange	2014	WSDOT Clark Co	$111,000,000
I-205	Mill Plain to NE 18th St	18th St. Ramps/Frontage Road between Mill Plain and 18th Streets	No interchange at 18th/28th	2016	WSDOT	$101,100,000
SR-14	NW 6th Av. to 6th St.	Widen to 2 lanes each direction with split diamond interchange at Union St. and 2nd St.	1 lane each direction	2013	WSDOT	$50,563,000
SR-500	St. Johns Interchange	New Interchange	Intersection	2013	WSDOT	$48,628,000
SR-500	at SR-503/Fourth Plain	Construct turn lanes	Intersection	2012	WSDOT	$807,000
SR-502	NE 10th Avenue to Battle Ground	2 lanes each direction	1 lane each direction	2015	WSDOT	$88,769,000
119th Street	72nd Avenue to 87th Av.	2 lanes ea. Direction	1 lane each direction	2014-2018	Clark County	$26,220,000
119th Street	NE 50th Avenue Intersection	1 lane ea. direction, w/turn lanes	1 lane each direction	2012	Clark County	$4,300,000
I-5/SR 501 Interchange Phase 2	56th Ave and 65th Ave	2-lane Roundabouts	N/A	2012	Ridgefield	$4,700,000
138th Avenue	28th Street to 49th Street	1 lane ea. direction, w CTL and access management	1 lane each direction	2012	Vancouver	$8,000,000
164th Avenue	SE 1st to SE 34th St	Reconstruct intersections to improve traffic flow	Unimproved intersections	2012	Vancouver	$4,500,000
TOTAL						**$448,587,000**

Note: Table5-3 includes identified projects on the MTP's designated regional transportation system that are already funded but are not yet constructed.

Table 5-4: 2035 MTP Project List (for adoption in 2011), MTP Designated System

Facility	Cross Streets	Project Description	Existing Condition	Est. Year of Completion	Jurisdiction/ Agency	Project Cost Estimate
I-5	Columbia River Crossing (CRC). SR-500 in Vancouver, Washington to Columbia Boulevard in Portland, Oregon	Replacement I-5 river crossing and reconstructed interchanges, Light Rail Transit with terminus in Clark College vicinity.	3 lanes each direction	2018	WSDOT	$3.2 to $3.5 Billion
I-5/I-205	Salmon Creek Interchange Phase II	Improve access to I-205 with flyover from 134th St to I-205 southbound		2013-2020	WSDOT	$35,000,000
I-5	LaCenter Rd. Interchange	Rebuild Interchange	Interchange	2011-2015	WSDOT	$40,000,000
I-5	179th Street to SR-502	Auxiliary lane in each direction	3 lanes each direction	2016-2025	WSDOT	$22,000,000
I-5	179th Street Interchange	Reconstruct Interchange	Interchange	2016-2025	WSDOT	$40,000,000
I-5	SR 500	Build Direction Connection	Partial Interchange	2018-2025	WSDOT	$120,000,000
I-5	East Fork Lewis River Bridge	Replace Bridge Structure	Bridge	2020-2025	WSDOT	$72,000,000
I-5	North Fork Lewis River Bridge	Replace Bridge Structure	Bridge	2020-2025	WSDOT	$85,000,000
I-205	I-205/SR14 Interchange to Mill Plain	Rebuild Interchange and Construct Braided Ramps	Interchanges	2025-2035	WSDOT	$140,000,000
I-205	18th St to SR 500	Construct 28th St. Ramps and Connector Roads	Overpass/Underpass	2016-2025	WSDOT	$100,000,000
I-205	SR-500	WB SR-500 to SB I-205 Flyover	Interchange	2025-2035	WSDOT	$33,000,000
I-205	Padden Parkway Interchange	Rebuild interchange	2 lanes each direction	2020-2030	WSDOT	$30,000,000
I-205	SR-500 to Padden Parkway	3 general purpose and 1 auxiliary lanes each direction	2 lanes each direction	2016-2025	WSDOT	$58,000,000
I-205	Padden Parkway to 134th Street	3 lanes each direction	2 lanes each direction	2016-2025	WSDOT	$90,000,000
SR-14	I-205 to 164th Avenue	3 lanes ea. direction	2 lanes each direction	2016-2025	WSDOT	$35,000,000
SR-14	West Camas Slough Bridge	Rebuild Bridge	1 lane each direction	2016-2025	WSDOT	$28,000,000
SR-14	2nd Street to 32nd Street	Add lanes and construct interchanges (for safety and capacity)	1 lane each direction with intersections	2016-2025	WSDOT	$100,000,000
SR-500	42nd and 54th Avenue	Construct Interchange and Grade-Separated Crossing	Intersection	2016-2025	WSDOT	$65,000,000

Facility	Cross Streets	Project Description	Existing Condition	Est. Year of Completion	Jurisdiction/ Agency	Project Cost Estimate
SR 500	Fourth Plain	Construct SR 500 Flyover	Intersection	2025-2035	WSDOT	$50,000,000
SR-503	at SR-502	Intersection improvement	Intersection	2011-2016	WSDOT/Battle Ground	$1,050,000
SR-503	at Padden Parkway	Add Interchange	Intersection	2020-2035	Clark County/ WSDOT	$32,000,000
SR-503	Padden to SR-502	Add Lanes, 3 lanes each direction	2 lanes each direction	2025-2035	WSDOT	$132,000,000
SR-503	SR-502 to Gabriel Road	Add Lanes, 2 lanes each direction	1 lane each direction	2020-2030	WSDOT	$34,000,000
Bus Stop Replacement	System Wide	Replace and upgrade signage	Follow replacement schedule, add vehicles as needed to provide service	2013	C-TRAN	$771,000
Transit Enhancements	System Wide	Improvements/amenities at bus stops, super stops, and transit centers - new and existing	Continuation of existing programs	Ongoing	C-TRAN	$42,440,000
Administration, Operations, and Maintenance Facility	65th Street & 18th Street	Expansion/redevelopment	Current facility is 20 years old and over capacity	2019-2020	C-TRAN	$22,725,000
Fisher's Landing Transit Center Expansion	164th Avenue & SR 14	Expansion of park & ride facility on property already owned by C-TRAN	Existing park and ride is approaching capacity	2015-2016	C-TRAN	$7,500,000
Bus Rapid Transit Improvements	Fourth Plain	Develop and construct BRT project	N/A	2014	C-TRAN	$78,000,000
18th Street Park & Ride	18th Street & I-205	Relocation of existing Evergreen Park & Ride	Current park and ride lacks visibility and easy access to I-205. Relocation will support service improvements	2021-2022	C-TRAN	$14,600,000
219th Street Park & Ride	I-5 & SR-502	Park & Ride facility at new interchange	N/A	2020-2030	C-TRAN	$16,200,000
Fleet Replacement and Expansion	System Wide	Purchase replacement and expansion vehicles for fixed route, paratransit, and vanpool service	Continue ongoing program	Ongoing	C-TRAN	$135,588,000
ITS Deployment	System Wide	Deploy ITS Phase 2 and 3, including digital radio system and transit signal priority	Phase 1 complete	Ongoing	C-TRAN	$10,378,000
Facility Capital Maintenance				Ongoing	C-TRAN	$30,900,000
Miscellaneous Capital Repair & Replacement				Ongoing	C-TRAN	$15,666,000
119th Street	87th Avenue to 110th Av.	2 lanes ea. direction, w/turn lane	1 lane each direction	2017-2035	Clark County	$28,000,000
119th Street	Salmon Creek Av. to 72nd Ave.	1 lane ea. direction, w/turn lane	1 lane each direction	2017	Clark County	$10,912,000
119th Street	NW 7th Av to NW 16th Av	1 lane ea. direction, w/turn lane	1 lane each direction	2013-2030	Clark County	$8,655,000

Facility	Cross Streets	Project Description	Existing Condition	Est. Year of Completion	Jurisdiction/ Agency	Project Cost Estimate
179th Street	Delfel Rd to NE 15th Ave.	2 lanes ea. direction, w/turn lane	1 lane each direction	2014	Clark County	$25,000,000
179th Street	NE 15th to NE 29th Avenue	2 lanes ea. direction, w/turn lane	1 lane each direction	2017-2035	Clark County	$25,000,000
179th Street	NE 29th Avenue to NE 72nd Av.	1 lane ea. direction, w/turn lane	1 lane each direction	2017-2035	Clark County	$37,700,000
179th Street	NE 72nd Avenue to Cramer Road	1 lane ea. direction, w/turn lane	1 lane each direction	2017-2035	Clark County	$20,358,000
179th Street	Cramer Road to NE 112th Av.	2 lanes ea. direction, w/turn lane	None	2017-2035	Clark County	$5,881,200
179th Street	Fairgrounds Entrance to NW 11th Avenue	2 lanes ea. direction, w/turn lane	1 lane each direction	2017-2035	Clark County	$14,550,000
Andresen	Padden Parkway	Add Interchange	Intersection	2017-2035	Clark County	$52,000,000
Highway 99	NE 99th Street to NE 107th Street	2 lanes ea. direction, w/turn lane	2 lanes each direction	2017 - 2020	Clark County	$13,936,000
Highway 99	NE 107nd Street to NE 117th Street	2 lanes ea. direction, w/turn lane	2 lanes each direction	2017 - 2020	Clark County	$20,730,000
Highway 99	122nd to 129th Street	2 lanes each direction w/ turn lane	2 lanes each direction	2017-2035	Clark County	$11,310,000
Highway 99	South RR Bridge (Ross Street) to NE 63rd Street	2 lane ea. Direction w/ bike/ped facilities	2 lanes each direction	2017-2035	Clark County	$5,460,000
Highway 99 Amenity Incentives	Various locations			*2012-2035*	*Clark County*	$1,500,000
NE 119th Street	SR-503 to NE 172nd Avenue	1 lane ea. direction, w/turn lane	1 lane each direction	2017-2035	Clark County	$19,113,000
NE 182nd Avenue	NE 159th to NE 174th St	Turn lanes at intersections	1 lane each direction	2017-2035	Clark County	$3,016,000
NE 72nd Avenue	NE 133rd to NE 219th St	2 lanes ea. direction, w/turn lane	1 lane each direction	2017-2035	Clark County	$55,159,000
NE Ward Rd.	NE 88th Street to NE 172nd Ave	2 lanes ea. direction	1 lane each direction	2017-2035	Clark County	$5,000,000
NE Ward Rd.	NE 172nd Avenue to Davis Rd	1 lane ea. direction, w/turn lane	1 lane each direction	2017-2035	Clark County	$11,344,000
NE Ward Rd.	NE Davis Rd to NE 182nd Avenue	1 lane ea. direction, w/turn lane	1 lane each direction	2017-2035	Clark County	$18,850,000
Padden Parkway	SR-503	Add Interchange	Intersection	2020-2035	WSDOT/Clark Co	See WSDOT section

Facility	Cross Streets	Project Description	Existing Condition	Est. Year of Completion	Jurisdiction/ Agency	Project Cost Estimate
St. John's Blvd.	NE 68th St to NE 50th Av.	2 lanes ea. direction, w/turn lane	1 lane each direction	*2017-2035*	Clark County	$16,328,000
Grace Avenue	Grace Av/East Main St	Align S Grace and N Grace	Unaligned intersections	2017	Battle Ground	$3,239,000
SE Eaton Blvd	SE Grace to East City Limits	1 lane ea. direction, w/turn lane, bicycle and pedestrian facilities	1 lane each direction	2014-2018	Battle Ground	$1,425,000
SE Grace Avenue	SE Rasmussen Blvd to SE Eaton Blvd	1 lane ea. direction, w/turn lane, bicycle and pedestrian facilities	1 lane each direction	2012-2013	Battle Ground	$5,000,000
SE Grace Avenue	E Main St to SE Rasmussen Blvd	1 lane ea. direction, w/turn lane, bicycle and pedestrian facilities	1 lane each direction	2015	Battle Ground	$3,000,000
SR-502 and W 12th Avenue	Reconfigure roadway system and signal removal	1 lane ea. direction, w bicycle and pedestrian facilities	Signalized intersection	2014-2018	Battle Ground	$220,000
SR-503 and SW Eaton Blvd		Improve intersection - add turn lanes		2014-2018	Battle Ground	$525,000
SR-503 and SW Rasmussen Blvd		Add east legs of intersection and signalize	No intersection	2014-2018	Battle Ground	$815,000
SR-502 and W 15th Avenue	Reconfigure roadway system and add turn lanes	1 lane ea. direction, w bicycle and pedestrian facilities	Signalized intersection	2014-2018	Battle Ground	$450,000
SR-503	at SR-502	Add turn lanes to intersection	Intersection	2014-2018	Battle Ground/ WSDOT	$2,100,000
SR-503 and NW 5th Way		Add right-in/right-out intersection	None	2019-2028	Battle Ground	$250,000
NE 179th Street,	NE 112th Avenue to SR 503	Construct urban minor arterial with bike lanes and sidewalks	none	2019-2028	Battle Ground	$2,253,000
S Eaton Blvd	SW 20th Avenue	Signalize, add left turn lanes on all approaches	none	2014-2028	Battle Ground	$890,000
NW 38th Av/SE 20th St	192nd Av to Armstrong St	1 lane each direction w/ turn lane, bike and pedestrian	Partially 1 lane each direction, partially none	2013	Camas	$3,550,000
NE 18th St	Goodwin to 192nd Av	2 lanes each direction w/ turn lane, bike and pedestrian	None	2016-2022	Camas	$9,340,000
NE Goodwin Rd	18th St to 232nd Av	2 lanes each direction w/ turn lane, bike and pedestrian	1 lane each direction	2016-2022	Camas	$20,530,000
SR-500/ Everett Rd	Lake Rd to NE 4th St	1 lane each direction w/ turn lane, bike and pedestrian	1 lane each direction	2023-2029	Camas	$12,710,000
NW 6th Av	Ivy to Division	Add turn lanes	2 lanes each direction	2016-2022	Camas	$1,200,000

Facility	Cross Streets	Project Description	Existing Condition	Est. Year of Completion	Jurisdiction/ Agency	Project Cost Estimate
E 4th Street	Stonecreek Drive	Brezee Creek Crossing Pedestrian/bicycle Improvements	Old Culvert, no bike lanes, 1 sidewalk	2016-2020	La Center	$3,248,000
E 4th Street	Highland to E. City Limits	Urban upgrade	Unimproved road segment	2016-2021	La Center	$1,635,000
La Center Road	at Timmen Road	Construct left turn lanes	Unimproved intersection	Partly complete in 2012. Rest in 2016-2021.	La Center	$1,450,000
E 4th Street	Cedar Avenue	Create downtown couplet.	urban road with sidewalks.	2014-2017	La Center	$101,500
SR-501 Deceleration Lane	SR-501 and NW 26th Street	Add deceleration lane on north side of SR-501	1 lane each direction	2009	Port of Vancouver	
West Vancouver Freight Access	Southwest Vancouver	Construct new freight rail entrance to the Port from the BNSF Railway mainline, a grade separated entrance to T-5 and improves internal rail storage to accommodate unit trains	Hill track access from BNSF mainline, internal rail system. No service to Columbia Gateway	Phased, 2011-2017	Port of Vancouver	$150,000,000
Hillhurst Road	Sevier Rd to 229th extension	Upgrade to 5 lane principal arterial	1 lane each direction	2015	Ridgefield	$14,693,000
Hillhurst Road	SR-501 to Sevier Rd	1 lane each direction w/ turn lane	1 lane each direction	2013	Ridgefield	$5,414,000
I-5	219th St. to SR-501	NB auxiliary lane along I-5	None		Ridgefield/ WSDOT	$8,600,000
I-5	SR-501 to 219th St.	SB auxiliary lane along I-5	None		Ridgefield/ WSDOT	$7,900,000
Pioneer Street Bridge	over Gee Creek	Bridge Replacement	2 lane bridge	2020	Ridgefield	$2,671,500
Pioneer St (SR 501) at 9th Ave/Hillhurst Rd	N/A	Signalized Intersection improvement	Unsignalized Intersection	2015	Ridgefield	$345,000
Pioneer St (SR 501)	Reiman Road to 35th Ave Roundabout	Widen, 1 lane each direction w/ turn lane	1 lane each direction	2020	Ridgefield	$5,581,000
Pioneer St (SR 501) at 35th Ave	N/A	2-lane Roundabout	2-way stop-controlled intersection	2014	Ridgefield	$1,268,000
Pioneer St (SR 501)	35th Ave to 45th Ave	Widen, 2 lane each direction w/ turn lane	1 lane each direction	2015	Ridgefield	$3,530,000
Pioneer St (SR 501) at 51st Ave	N/A	2-lane Roundabout	N/A	2015	Ridgefield	$1,268,000
Pioneer St (SR 501)	45th Ave to 51st Ave	Widen, 2 lane each direction w/ turn lane	1 lane each direction	2018	Ridgefield	$2,194,000
Pioneer St (SR 501)	51st Ave to 56th Ave	Widen, 2 lane each direction w/ turn lane	1 lane each direction	2018	Ridgefield	$2,194,000
Extend Pioneer St (SR 501) to Port	Main Ave to Division St	Railroad Overcrossing, new road	N/A	2018	Ridgefield	$12,500,000

Facility	Cross Streets	Project Description	Existing Condition	Est. Year of Completion	Jurisdiction/ Agency	Project Cost Estimate
Hillhurst Road at S. Royle Road	N/A	Signalized Intersection improvement	N/A	2018	Ridgefield	$964,000
112th Avenue	Mill Plain to 49th Street	2 lanes ea. direction, w/turn lane	2 lanes each direction	2020-2035	Vancouver	$7,000,000
137th Avenue	49th Street to Vancouver City Limits	2 lanes ea. direction, w/turn lane	1 lane each direction	2015-2025	Vancouver	$8,000,000
18th Street	162nd Avenue to 192nd Avenue	2 lanes ea. direction, w/turn lane	1 lane each direction	2020-2035	Vancouver	$12,000,000
18th Street	97th Avenue to NE 138th Avenue	2 lanes ea. direction, w/turn lane		2012-2025	Vancouver	$21,000,000
18th Street	138th Avenue to 162nd Avenue	2 lanes ea. direction, w/turn lane	1 lane each direction	2015-2025	Vancouver	$15,000,000
18th Street	87th Avenue to 97th Avenue	Extend existing street 1 lane ea. direction, w/turn lane	No street	2015-2025	Vancouver	$9,000,000
192nd Avenue	SE 1st Street to NE 18th Street	2 lanes ea. direction, w/turn pockets	1 lane each direction	2015-2025	Vancouver	$7,000,000
E. Mill Plain	136th Ave. Intersection	Intersection improvement	Substandard	2011	Vancouver	$2,500,000
Fourth Plain	I-5 to Railroad Bridge	Corridor improvements with targeted widening for capacity	1 lane each direction with center turn lane	2020-2035	Vancouver	$15,000,000
Fourth Plain Boulevard/ Andresen	Intersection Influence Area	Reconstruct Fourth Plain in vicinity of 65th/66th Avenue to Andresen		2017-2025	Vancouver	$5,000,000
Fruit Valley Rd	Whitney to 78th Street	1 lane ea. direction, w/turn lane	1 lane each direction	2017-2035	Vancouver	$28,000,000
Lieser Road/ NE 87th Avenue	Lieser to E 5th St	Intersection improvement	Offset intersection	2017-2035	Vancouver	$7,500,000
Main Street	5th Street to McLoughlin	Reconstruct from 5th to 16th	One-way street	2017-2030	Vancouver	$10,000,000
Main Street	5th Street to Columbia Way	Re-connect to waterfront S. of rail berm	No street	2016	Vancouver	$9,000,000
NE 28th Street	142nd Avenue to 162nd Avenue	1 lane ea. direction, w/turn lane	1 lane each direction	2017-2025	Vancouver	$6,000,000
SE 1st Street	164th Avenue to 192nd Ave.	2 lanes ea. direction, w/turn lane	1 lane each direction	2015-2025	Vancouver	$20,000,000
SE 20th Street	192nd Ave. to Camas City Limits	New urban minor arterial roadway	No Street	2012-2017	Vancouver	$1,750,000
SE 5th Street	*Blandford to East Reserve*	*Upgrade to 3-lane Modified Collector*	*1 lane each direction*	*2017-2035*	*Vancouver*	*$1,200,000*

Facility	Cross Streets	Project Description	Existing Condition	Est. Year of Completion	Jurisdiction/ Agency	Project Cost Estimate
Andresen Rd.	MacArthur Blvd Intersection	Intersection operational upgrade	4-way stop control	2017-2025	Vancouver	$1,000,000
Main Street	39th St. Intersection	Intersection capacity and operational upgrade	substandard lane width, inadequate storage, inadequate turn lanes	2017-2025	Vancouver	$3,500,000
Mill Plain Blvd	104th/105th Intersection	Intersection offset removal	offset intersection north/south of Mill Plain	2017-2035	Vancouver	$4,000,000
32nd Street	SR-14 to Evergreen Way	Widen to 3 lanes - striping only	Completed	2007	Washougal	
32nd Street	Evergreen Way to 34th Street	Widen to 3 lanes, plus bike lanes and sidewalk	1 lane each direction	2018-2024	Washougal	$5,476,000
Evergreen Way	32nd Street to Sunset View Rd	Widen to 3 lanes, plus bike lanes and sidewalk	1 lane in each direction	2018-2024	Washougal	$8,117,000
SR 14 Access & Interchanges	Washougal River Road to 32nd Street			2011-2017	(Washougal) (Port of Camas Washougal) (WSDOT)	$24,334,000
Evergreen @ 32nd Street	Intersection Influence Area	Intersection reconstruct including radius and turn lanes		2011-2017	Washougal	$840,000
Washougal River Road	Shepherd Road, 18th/O, 25th	Intersection improvements, bike ped. and trail crossing		2018-2024	Washougal	$2,482,000
Evergreen Way And Sunset View Road	Intersection Influence Area	Intersection improvement		2018-2024	Washougal	$1,963,000
Evergreen @ 39th intersection	*Evergreen and 39th St.*	*Evergreen @ 39th St. Signalization and intersection improvements*	*no signal*	*2025-2030*	*Washougal*	*$1,081,000*
County-wide	County Wide	Pedestrian & Bicycle Projects and Programs		Continuing	County-wide	$92,400,000
County-wide	County Wide	Demand Management		Continuing	County-wide	$48,000,000
Various	System Wide	Transportation System Management and Operations		Continuing	County-wide	$45,800,000
Total						**$2,843,617,200**

Note: Table 5-4 includes projects on the MTP's Designated Regional Transportation System which do not yet have a funding source but for which funds are likely to be available during the twenty-plus year term of the MTP (to year 2035). These projects are the MTP's "fiscally-constrained" projects.

Bi-State Transportation

Bi-State Coordination Committee

The Bi-State Transportation Committee was established in 1999 to ensure that bi-state transportation issues are addressed. This Committee was reconstituted in 2004 to expand its scope to include both transportation and land use according to the Bi-State Coordination Charter. The Committee is now known as the Bi-State Coordination Committee. The Committee's discussions and recommendations continue to be advisory to the Southwest Washington Regional Transportation Council (RTC), and Metro's Joint Policy Advisory Committee on Transportation (JPACT) and Metro Council on issues of bi-state transportation significance. On issues of bi-state land use and economic significance, the Committee advises the appropriate local and regional governments.

Columbia River Crossing Project

The Columbia River Crossing (CRC) Project is a collaboration of Oregon Department of Transportation, Washington State Department of Transportation, Metro, the Southwest Washington Regional Transportation Council, TriMet and C-TRAN as well as the cities of Portland and Vancouver. Each of these sponsoring agencies is responsible for approving all or part of the project to be built. WSDOT and ODOT are leading the preliminary highway design and project management. TriMet and C-TRAN are leading the preliminary transit design and would operate the transit elements of the project. Metro and RTC are the Metropolitan Planning Organizations (MPOs) for the region and maintain the regional and metropolitan transportation plans that include the LPA for the CRC project. The Cities of Portland and Vancouver have specific permitting authority over some elements of the project. The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) are the lead federal agencies for the project.

The LPA includes a variety of transportation improvements throughout the 5-mile project corridor including: a new river crossing over the Columbia River and I-5 highway improvements with reconstruction of seven interchanges, extension of light rail from the Expo Center in Portland to Clark College in Vancouver, along with associated transit improvements, including transit stations, park and rides, bus route changes, and expansion of a light rail transit maintenance facility and bicycle and pedestrian improvements throughout the project corridor.

Emerging Issues to Track

The following issues should be pursued following completion of the 2011 MTP update:

- Recognizing we are in a period of transition in Clark County, the focus should turn to transportation performance and plan monitoring with development of a 10-year project priorities strategy to reflect changes in financial and budgetary conditions.
- Update modal elements of the plan, as necessary.

Chapter 6: System Performance Monitoring, Plan Development and Implementation

Transportation system performance requires ongoing monitoring.

System Performance Monitoring

The transportation planning process requires that monitoring of system performance take place. The elements of system monitoring activities are described in this chapter.

GMA and Concurrency Management

Monitoring of the regional transportation system's performance is an ongoing activity for RTC and local jurisdictions. The GMA-required Concurrency Management System necessitates monitoring of transportation system performance to measure its performance against established Level of Service standards. Requests for future development have to be considered in light of the established Levels of Service for transportation facilities. If Level of Service standards cannot be met, then development can be halted or mitigation measures required. Concurrency management requires not only monitoring of transportation system performance but also tracking of development in the region and update of transportation modeling tools to ensure accuracy of data.

Regional Travel Forecasting Model

RTC uses a regional travel forecast model to forecast future transportation needs. Performance measures, in terms of speed, vehicle miles traveled, lane miles of congestion and vehicle hours of delay are calculated within the model.

Travel Behavior and Household Activity Survey

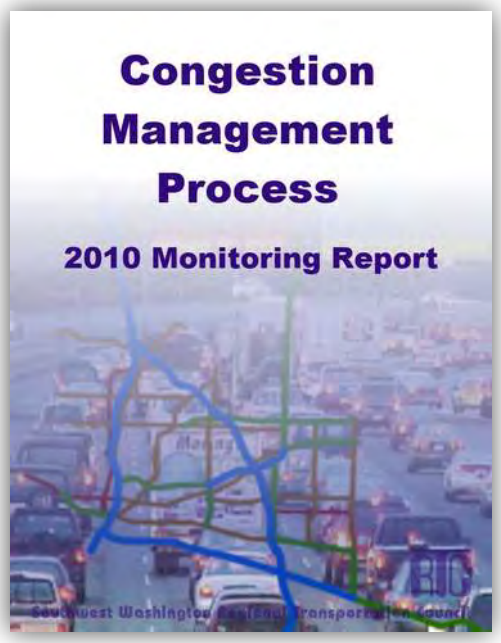
Results from travel behavior and household activity surveys provide valuable information that can be used to refine and update the regional travel forecast model. In the Portland-Vancouver region, surveys were fielded in 1977, 1985, 1994 and a phased survey in year 2009 to 2011. The Clark County

Mobile source emissions are a significant source of air pollution

household travel survey was fielded between August and November 2009 and the Portland, Oregon part of the region was surveyed beginning in 2010 and continuing in 2011. Travel behavior and household activity surveys conducted in other regions can also provide useful information. The American Community Survey (U.S. Census Bureau) now provides annual update to questions on journey to work including travel time and transportation mode used.

Congestion Management Process

The federal Intermodal Surface Transportation Efficiency Act (ISTEA), passed in 1991, required the development of a Congestion Management System (CMS) to be used as a tool for monitoring traffic congestion and for identifying improvement strategies to alleviate the congestion. The *Southwest Washington ISTEA Transportation Management Systems, Phase II Final Report* (May 1995), which contains the CMS, was adopted by the RTC Board on May 2, 1995 (RTC Board Resolution 05-95-14). The CMS network is a sub-set of the regional transportation highway network. The CMS network is now comprised of 30 transportation corridors to be monitored and evaluated on an ongoing basis as part of the Congestion Management Process required by the federal transportation act, SAFETEA-LU (2005).



Air Quality Monitoring

Air quality has a direct relationship to the transportation system and its performance because mobile source emissions are a significant source of air pollution. With the Vancouver/Portland Air Quality Maintenance Area's (AQMA's) reclassification from "maintenance" to "unclassifiable/attainment" for Ozone, the region no longer needs to demonstrate air quality conformity for Ozone. Similarly for carbon monoxide, regional conformity is presumed and regional emissions analyses and emission budget tests are no longer required. However, RTC continues to consult with clean air partners and agencies, such as the Southwest Clean Air Agency, Washington State Department of Ecology, and the federal Environmental Protection Agency, to develop a methodology for mobile source emissions analysis, use of the regional travel model data to provide data needed to develop mobile source emissions inventories and to determine a regional air quality determination.

Commute Trip Reduction Law Implementation

Monitoring of the success of the Commute Trip Reduction (CTR) program is carried out to ensure that the 10% trip reduction goal is being met or being actively worked toward. CTR affected worksite surveys are conducted every two years with data analysis carried out by WSDOT. Within the Clark County region, Urban Growth Areas that must have CTR plans under the 2006 CTR Efficiency Act (RCW 70.94.527) are Vancouver, Camas and Washougal as well as the unincorporated Clark County portion of the Vancouver UGA.

Plan Development and Implementation

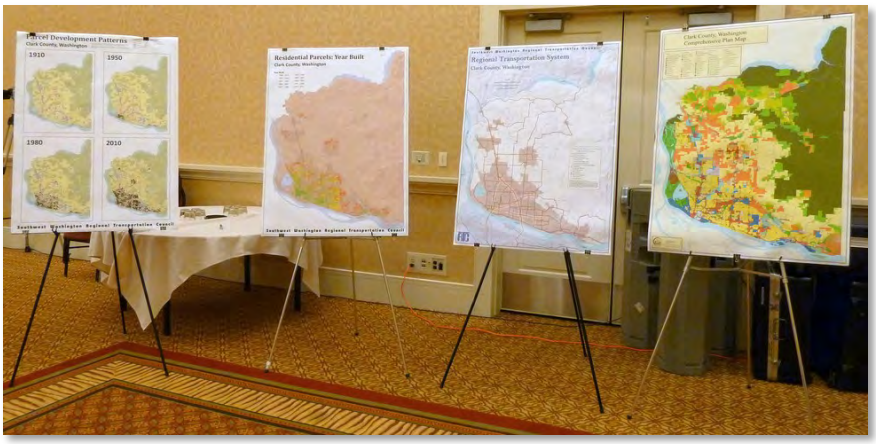
The public participation process is directed toward ensuring that the public's values and interests are reflected in regional transportation decisions.

Public participation is an important part of the regional transportation decision-making process carried out by RTC.

Public Participation in Metropolitan Transportation Planning Process

RTC's Public Participation Plan outlines a broad range of opportunities for the public and stakeholders to participate in the region's transportation planning process. In the Plan, RTC continues its commitment to publish, or make available for public view, transportation plans and Transportation Improvement Programs (TIPs), and to hold meetings at convenient and accessible times and locations. RTC also commits to use maps, charts, graphics and website information in order to help explain the metropolitan transportation planning process and to make metropolitan transportation planning information available to the public. The latest update to RTC's Public Participation Plan was adopted by the RTC Board in 2007 (RTC Board Resolution 08-07-15).

Transportation issues, studies, plans and programs are outlined and reported on at RTC's web site. The adopted MTP is available for reference at the web site. Also, draft update elements of the Plan are posted to the web site and public comments are invited. The public is given opportunity to make formal comments on both the MTIP and the MTP at monthly RTC Board meetings which are advertised in the local media and which are open to the public. Board meetings agenda and minutes are posted to RTC's web site. Updates and amendments to the MTP are presented to the RTC Board for their consideration and adoption.



Metropolitan Transportation Planning Program: Implementation of Required Planning Factors

Under the provisions of the Federal Transportation Act, SAFETEA-LU, Metropolitan Planning Organizations (MPOs) are required to consider eight planning factors in the development of transportation plans and programs. These factors are outlined below:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency
- Increase the safety of the transportation system for motorized and non-motorized users
- Increase the security of the transportation system
- Increase the accessibility and mobility options available to people and for freight;
- Protect and enhance the environment, promote energy conservation, and improve quality of life
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
- Promote efficient system management and operation
- Emphasize the preservation of the existing transportation system

MTP Implementation

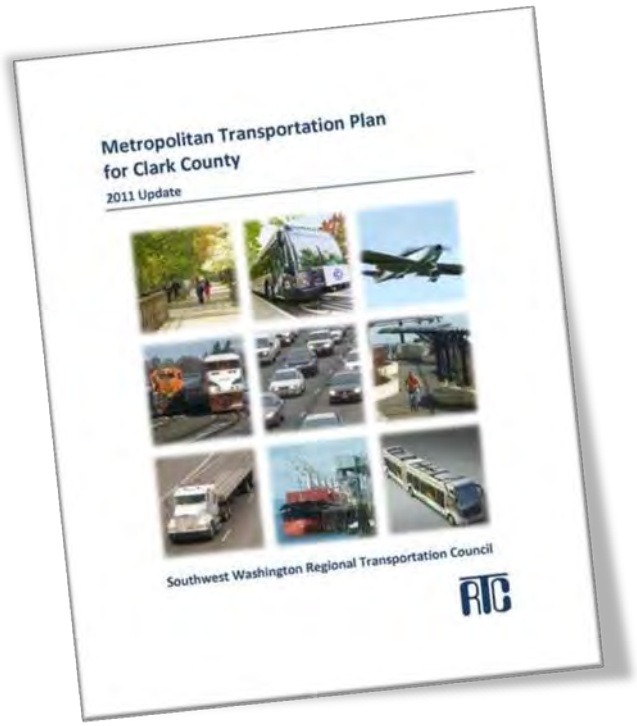
Programming Projects in the Metropolitan Transportation Improvement Program (MTIP)

Implementation of regional transportation goals, policies and actions established by the MTP are carried forward through the regional decision-making process that takes place in development of the regional Metropolitan Transportation Improvement Program (MTIP). It is in the MTIP that transportation needs identified in the MTP can be programmed for receipt of federal funding.

MTP Update Process

The MTP must be updated at least every four years.

The state's Growth Management Act requires that the MTP be reviewed for currency every two years. Under the federal Intermodal Surface Transportation Efficiency Act (1991) and Transportation Equity Act for the 21st Century (TEA-21), MTP update was required at least every three years. The federal transportation reauthorization act, SAFETEA-LU, has revised requirements for update of regional transportation plans requiring update at least every four years instead of every three years in air quality maintenance areas. The MTP must comply with all the revised requirements for the planning process established in SAFETEA-LU. The revised requirements under SAFETEA-LU include expanded consultation requirements, discussion of potential environmental mitigation activities developed in consultation with Federal, State and Tribal wildlife, land management and regulatory agencies, and changes to public participation requirements. The Plan is required to have at least a twenty-year horizon. Should changing policies, financial conditions or growth patterns warrant, then Plan amendments can take place subject to the public participation requirements, air quality consideration and fiscal constraint.



Emerging Issues to Track

When considering emerging system performance monitoring, plan development and implementation issues, the following issues and trends should be tracked:

- Continue to work with planning partners in local jurisdictions, U.S. and state Departments of Transportation, and transit agencies as plans for future transportation system developments are developed.
- Continue to monitor system performance through RTC's Congestion Management Process (CMP).
- Continue to develop and analyze Regional Travel Forecasting Model to support system needs identification.
- Consider updating the MTP once an updated federal transportation act is in place.
- Address transportation system priorities through a shorter-term, 10-year, planning effort beginning in 2012.