Metropolitan Transportation Plan for Clark County

Southwest Washington Regional Transportation Council

METROPOLITAN TRANSPORTATION PLAN FOR CLARK COUNTY

TABLE OF CONTENTS

Update: RTC Board Resolution 12-05-24 (December 6, 2005), *Metropolitan Transportation Plan Update*

CHAPTER 1 1-1

INTRODUCTION: MTP Vision, Purpose and Goals 1-1

Framework and Vision 1-1
Purpose 1-1
MTP Goals 1-2
Figure 1-1: RTP Goals 1-4
Scope 1-5
Figure 1-2: Clark County Washington (location map) 1-6
Transportation Issues Addressed in MTP 1-7
Statutory Requirements 1-7
Federal 1-7
State 1-10
Washington State's Regional Transportation Planning Program 1-12
Intergovernmental Coordination - Clark County MTP Update Development Process 1-14
Figure 1-3: RTC Agency Structure 1-15
Bi-State Coordination 1-15
Level of Service Standards 1-16
Clark County Metropolitan Transportation Plan Update: Work Plan 1-16
Figure 1-4: MTP Process 1-17
Outline of MTP Chapters 1-18

CHAPTER 2 2-1

LAND USE, GROWTH AND TRANSPORTATION 2-1

Land Use and Transportation 2-1
Figure 2-1: Land Use/Transportation Cycle 2-1
Growth and Development 2-2
Growth in Clark County 2-2
Figure 2-2: Growth in Clark County, 1980-2000 2-3
Existing Land Uses in Clark County 2-3
Figure 2-3: Incorporated and Unincorporated Population, 1980 and 2000 2-5
Table 2-1: Growth in Population of Clark County Cities, 1990 to 2005 2-7
Land Use: Plans for the Future 2-7
Clark County Jurisdictions' Comprehensive Land Use Plans and Zoning - Use In The Regional Transportation Planning Process 2-7
Population and Employment Forecast 2-8
Transportation Analysis Zones 2-9
Distribution of Future Growth 2-9
Figure 2-4: Growth in Clark County, 2000 to Forecast 2030 2-10
Figure 2-5: Population, Housing and Employment in Clark County, 1980 to 2000 & Forecast 2030 2-10
Demographic and Land Use Trends 2-11
Figure 2-6: Registered Passenger Cars & Population in Clark County, 1980-2000 2-12
Table 2-2: Clark County Demographic Data, 1970, 1980, 1990 and 2000 2-12
Table 2-3: Summary of Clark County Demographics 2-13
Table 2-4: Clark County Journey to Work 2-13
Table 2-5: Summary of Clark County Growth Forecasts 2-14

CHAPTER 3 3-1

IDENTIFICATION OF REGIONAL TRANSPORTATION NEEDS 3-1
INVENTORY OF THE EXISTING REGIONAL TRANSPORTATION SYSTEM 3-1
Federal transportation boundaries 3-1
Figure 3-1: Transportation Boundaries 3-2
Functional Classification of the Regional Highway System 3-3
Principal Arterials 3-3
Minor Arterials 3-4
Collectors 3-4
Local Streets 3-4
Rural Principal Arterials 3-4
Rural Minor Arterials 3-4
National Highway System (NHS) 3-5
Table 3-1: Designated NHS Facilities; Clark County 3-5
Highways of Statewide Significance (HSS) 3-5
Figure 3-2: 2023 Regional Transportation System 3-6
Designation Of The RTP Regional Transportation System 3-8
Table 3-2: State Route Mileage in Clark County 3-10
Table 3-3: C-TRAN Fixed Route System 3-12
Table 3-4: C-TRAN; Paratransit Service 3-14
Table 3-5: C-TRAN Connector Service 3-14
Table 3-6: C-TRAN Transit Centers (September 2005) 3-15
Table 3-7: C-TRAN Park & Ride Facilities (September 2005) 3-16
Table 3-8: CTRAN Bicycle Facilities (September 2005) 3-16
Table 3-9: Aircraft Operations Estimates 3-20
REGIONAL TRANSPORTATION SYSTEM PERFORMANCE 3-20
Growth in Traffic Volumes 3-20
Table 3-10: Traffic Volumes; 1985 to Current Years 3-21
Figure 3-3: I-5, I-205 Average Weekday Bridge Crossings 3-22
Table 3-11: Highest Volume Intersections in Clark County, 2004 3-23
Regional Travel Forecasting Model: Forecasting Future Travel Demand and Transportation Needs 3-23
Figure 3-4: Average Weekday Trip Types, Clark County Produced Person Trips 3-25
Figure 3-5: Distribution Patterns of Clark County Produced Person Trips, Average Weekday 3-26
Table 3-12: P.M. Peak Hour Speed 3-27
Table 3-13: Peak Hour Vehicle Miles Traveled 3-27
Table 3-14: Peak Hour Lane Miles of Congestion 3-28
Table 3-15: Peak Hour Vehicle Hours of Delay 3-28
Levels of Service 3-29
Table 3-16: Level of Service Definitions (HCM) 3-30
Level of Service Standards on Highways of Statewide Significance and Highways of Regional Significance 3-31
Clark County/Vancouver LOS Standards 3-32
Table 3-17: City of Vancouver Concurrency Measurement Corridors 3-33
Table 3-18: Clark County Concurrency Measurement Corridors 3-34
Transit LOS Indicators 3-34
Table 3-19: C-TRAN Level of Service Indicators (Summer 2005) 3-35
Highway System Capacity Analysis 3-35
Transportation System Analysis 3-36

METROPOLITAN TRANSPORTATION PLAN FOR CLARK COUNTY
UPDATED: DECEMBER 2005.
TABLE OF CONTENTS (CONTINUED)

CHAPTER 4 4-1

Financial Plan 4-1
- Overview 4-1
- Finance Issues Since Last MTP 4-1
- Assumptions 4-2
- Current Revenue Sources 4-2
  - Federal Funding 4-2
  - State Funding 4-8
  - TIB Urban Funding Programs 4-8
  - TIB Small City Funding Programs 4-9
    - Table 4-1: TIB Funding Provided to the Clark County Region, 1989 to 2003 4-10
  - Local Funding 4-12
  - Transit Revenues 4-13
- Potential Transportation Revenues 4-14
- MTP Revenues 4-15
  - Table 4-2: Potential Revenues Generated in Clark County 4-15
- MTP Costs 4-16
  - Assumptions 4-16
  - System Maintenance, Preservation and Operations 4-16
  - System Improvements 4-16
    - Table 4-3: MTP List Of "Fiscally Constrained" Projects 2005-2030 4-17
    - Table 4-4: Projected Costs Of MTP Transportation System Needs 4-25
- Consistency Between MTP And State Systems Plan and Local Plans 4-25
- Revenues and Costs 4-25
- Funding Strategies 4-27
- Fiscal Constraint and the MTP 4-27

CHAPTER 5 5-1

System Improvement and Strategy Plan 5-1
- Overview: Development of a Balanced Regional Transportation System 5-1
- Maintenance of the Existing Regional Transportation System 5-1
- Preservation of the Existing Regional Transportation System 5-1
- Bridge Deficiencies 5-1
- Safety Deficiencies 5-2
- Economic Development and Freight Transportation 5-2
- Freight Transportation 5-2
- Freight Rail 5-3
- Marine Freight 5-3
- Air Freight 5-3
- Non-Motorized Modes 5-4
  - Bicycle Transportation 5-5
  - Pedestrian Transportation 5-5
- Transportation Demand Management (TDM) 5-5
  - Table 5-1: Outline of Transportation Demand Management Strategies 5-6
- Transportation System Management (TSM) 5-7
- Intelligent Transportation System (ITS) 5-8
- Transit 5-9

Jobs Access/Reverse Commute (JARC) and Welfare to Work 5-10
High Capacity Transportation (HCT) 5-10
Commuter Rail/Rail Capacity Issues 5-11
Transportation Management Areas (TMA's) 5-12
Congestion Management System (CMS) 5-12
Environmental Issues 5-13
Air Quality 5-13
Water Quality 5-14
MTP Regional System Improvements and Prioritization Process 5-14
Bi-State Transportation 5-16
Bi-State Coordination Committee 5-16
Columbia River Crossing Project 5-16
Figure 5-1: MTP Regional System Improvements 5-17

CHAPTER 6 **6-1**

Performance Monitoring 6-1
GMA and Concurrency Management 6-1
Regional Travel Forecasting Model 6-1
Congestion Management System 6-1
Table 6-1: Corridor Congestion Index Report 6-2
Air Quality Monitoring 6-3
Commute Trip Reduction (CTR) Law Implementation 6-3

CHAPTER 7 **7-1**

Plan Development and Implementation 7-1
Public Involvement in Metropolitan Transportation Planning Process 7-1
Metropolitan Transportation Planning Program: Required Planning Factors Implementation 7-2
Table 7-1: RTC's Implementation of Planning Factors, Status Report 7-2
MTP Implementation 7-6
MTP Update Process 7-6
Table 7-2: Chronology of MTP Update and Amendment, 1994 to 2005 7-9

METROPOLITAN TRANSPORTATION PLAN FOR CLARK COUNTY
UPDATED: DECEMBER 2005.
TABLE OF CONTENTS (CONTINUED)

MTP APPENDIX A
TRANSPORTATION CAPACITY IMPROVEMENTS ASSUMED IN MTP NETWORK AND AIR QUALITY ANALYSIS A-1
Table A-1: Metropolitan Transportation Plan (MTP) Update (2005) A-2
Projects Assumed to be Completed by 2030 ..... A-2
Table A-2: Other Transportation System Development Elements A-17

APPENDIX A-1 ..... A-20
Table A-3: Regional Prioritization of Corridors and Projects (will be revised in 2006) A-20

APPENDIX A-2 ..... A-21
Table A-4: Measures to Implement TDM and TSM A-21

Clean Air Conformity Determination A-22
AIR QUALITY CONFORMITY STATEMENT A-22
Background A-22
Air Quality Status A-22
Applicable State Implementation Plan A-22
Consultation Process A-22
Air Quality Conformity Methodology and ResultsA-23 ..... A-23
Table A-5: 2005 Metropolitan Transportation Plan: Air Quality Conformity Results Daily Emissions Estimates for Clark County AQ (maximum emissions) A-23
Status of Transportation Control Measures A-23
Table A-6: Air Quality Conformity: Key Assumptions A-23
Figure A-1: RTC Travel Model Process for Mobile Source Emissions Estimates A-26

APPENDIX B B-1

THE STRATEGIC METROPOLITAN TRANSPORTATION PLAN (MTP) B-2
A) Columbia River Crossing B-3
B) High Capacity Transit Corridors B-4
C) Port of Vancouver's Economic Development & Conservation Plan B-5
D) The Regional Transportation System: Future Needs B-5

MTP APPENDIX C
Community Framework Plan C-1
5.0 County-wide Planning Policies C-1

MTP GLOSSARY

SOUTHWEST WASHINGTON REGIONAL TRANSPORTATION COUNCIL

RTC MEMBER JURISDICTIONS

Clark County	Klickitat County
Skamania County	Washington State Dept. of Transportation
Oregon Department of Transportation	Metro (Portland, Oregon)
C-TRAN	City of Battle Ground
City of Camas	City of Ridgefield
City of Stevenson	City of Vancouver
City of Washougal	City of White Salmon
City of La Center	Town of Yacolt
City of North Bonneville	City of Bingen
City of Goldendale	Port of Ridgefield
Port of Vancouver	Port of Camas-Washougal
Port of Skamania County	Port of Klickitat

RTC Board of Directors

City of Vancouver	Mayor Royce Pollard
Cities East	Council Member Helen Gerde (Camas)
Cities North	Council Member Bill Ganley (Battle Ground) [Vice Chair]
City of Vancouver	Pat McDonnell (City Manager)
Clark County	Commissioner Betty Sue Morris
Clark County	Commissioner Steve Stuart
Clark County	Commissioner Marc Boldt
C-TRAN	Lynne Griffith (Executive Director/CEO)
ODOT	Matthew Garrett (Region One Manager)
Ports	Commissioner Arch Miller (Vancouver) [Chair]
WSDOT	Donald Wagner (Southwest Regional Administrator)
Metro	Metro Councilor Rex Burkholder
Skamania County	Commissioner Paul Pearce
Klickitat County	Mayor Brian Prigel (Bingen)
15th District	Senator Jim Honeyford
15th District	Representative Bruce Chandler
15th District	Representative Dan Newhouse
17th District	Senator Don Benton
17th District	Representative Jim Dunn
17th District	Representative Deb Wallace
18th District	Senator Joseph Zarelli
18th District	Representative Richard Curtis
18th District	Representative Ed Orcutt
49th District	Senator Craig Pridemore
49th District	Representative Bill Fromhold
49th District	Representative Jim Moeller

Regional Transportation Advisory Committee Members

WSDOT Southwest Region	Brian McMullen
Clark County Public Works	Bill Wright
Clark County Planning	Mike Mabrey
City of Vancouver, Public Works	Matt Ransom
City of Vancouver, Community Development	Bryan Snodgrass
City of Washougal	Scott Sawyer
City of Camas	Jim Carothers
City of Battle Ground	Sam Adams
City of Ridgefield	Justin Clary
C-TRAN	Ed Pickering
Port of Vancouver	Becky Eisiminger
ODOT	Thomas Picco
Metro	Mark Turpel
Regional Transportation Council	Dean Lookingbill

METROPOLITAN TRANSPORTATION PLAN

FOR CLARK COUNTY

Adopted: December 6, 2005
RTC Board Resolution 12-05-24

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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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Agenda Item VI
Resolution 12-05-24

STAFF REPORT

TO: Southwest Washington Regional Transportation Council Board of Directors
FROM: Dean Lookingbill, Transportation Director
DATE: November 29, 2005
SUBJECT: **2005 Metropolitan Transportation Plan Update, Resolution 12-05-24**

BACKGROUND

The Metropolitan Transportation Plan (MTP) for Clark County is the long-range regional transportation plan for the region, which must have at least a twenty-year planning horizon. The MTP represents the collective strategy for developing a regional transportation system that provides mobility and accessibility for personal travel and freight movement. The transportation plan supports local land uses and existing and planned economic development. The MTP identifies future travel needs, recommends policies/strategies, and identifies implementation programs to meet future 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. The Plan has been subject to annual review and since 1994 has undergone three major updates and five amendments. A further MTP update is anticipated once the 2006 update to the Comprehensive Growth Management Plan for Clark County is finalized. The Regional Transportation Advisory Committee (RTAC) reviewed the draft 2005 Metropolitan Transportation Plan update at its November 2005 RTAC 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 to enable these agencies to complete the air quality conformity determination.

Key elements of the MTP that have been reviewed during 2005 are listed below. The 2005 RTC Board meetings at which the Plan elements were reviewed and discussed are noted in parentheses.

- MTP Framework, Purpose, and Goals (Jan., Feb., Mar., Oct.)
- 2030 Horizon Year: Demographic Forecast (Jan., Feb., Mar., Aug.)
- 2030 Travel Demand Forecast (Jun., Aug.)
- Transportation System Needs, Projects and Strategies (Feb., Mar., Apr., May, Jun., Aug., Oct., Nov.)
- Designated Regional Transportation System (Jun., Oct.)

- Financial Plan: Revenue Forecast and Cost Estimates (Nov.)
- Air quality conformity update consistent with Clean Air Act Amendments of 1990 (Nov., Dec.)
- Strategic Plan (Nov.)

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. Throughout 2005, there have been public outreach efforts to inform the public of the Plan's update process and to solicit public comments. These efforts have included an event at Westfield Shoppingtown, Vancouver, in July 2005 and a transportation booth at the Clark County Fair in August 2005. In addition, RTC staff made presentations at neighborhood, community and civic meetings during the course of the year. The current, adopted MTP, as well as the draft MTP update, are available at RTC's web site at http://www.rtc.wa.gov/programs/mtp/outline.htm. Involvement of the public in regional transportation planning builds from local efforts. During 2005, public outreach has included meetings hosted by C-TRAN on service boundary change, fare increase and service changes. There have been meetings hosted by WSDOT on specific projects funded as part of the state's "nickel package" and on the SR-14 corridor planning study. Meetings on the comprehensive plan update and on specific transportation topics have been hosted by local jurisdictions. 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 on the agenda at all meetings of the RTC Board during 2005.

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). 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. RTC continues to work with local jurisdictions on development of the transportation elements of local comprehensive plans. This helps to ensure consistency between state, regional and local plans. Completion of the RTPO certification process is anticipated following the 2006 updates to the Clark County Comprehensive Growth Management Plan and Metropolitan Transportation Plan (MTP) for Clark County.

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 sources of revenue. After revenues are set aside for system maintenance, preservation and operating costs, the remaining revenues are available to fund capital improvements to the regional transportation system identified in the MTP.

ACTION REQUESTED

Adoption of Resolution 12-05-24, "2005 Metropolitan Transportation Plan Update".

ADOPTED this 6th day of December 2005,

by the Southwest Washington Regional Transportation Council.

SOUTHWEST WASHINGTON
REGIONAL TRANSPORTATION COUNCIL

Arch Miller
Chair of the Board

ATTEST:

Dean Lookingbill
Transportation Director

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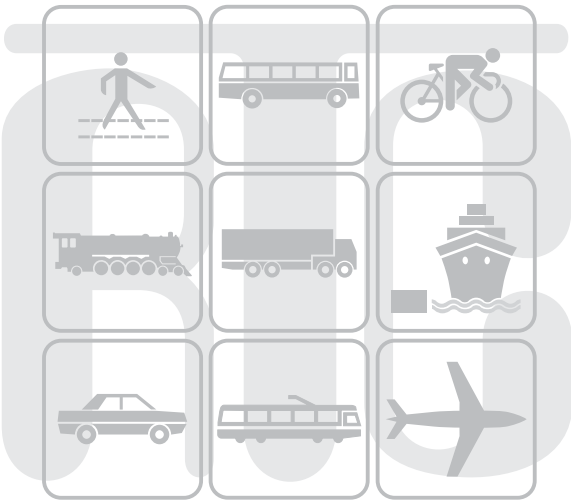

CHAPTER 1

INTRODUCTION: MTP VISION, PURPOSE AND GOALS

The Metropolitan Transportation Plan (MTP) for Clark County is the region's principal transportation planning document. It represents a regional transportation plan for the metropolitan area of Clark County developed through a coordinated process between local jurisdictions in order 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 adopted to comply with the requirements of the federal Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 was adopted in December 1994. Significant updates were adopted in 1996, 1999 and 2002 and minor amendments to the Plan adopted in 1997, 1998, April 1999, December 2000 and December 2003[1]. The 2005 update to the MTP uses 2030 as the horizon year. The MTP update incorporates land uses and growth allocations resulting from the update to the local Comprehensive Growth Management Plans adopted in 2004. The MTP also includes updated transportation data and includes recommendations from recent transportation studies. Projects and/or planning concepts whose scale, financial structure and economic importance are beyond the 20-year list of projects contained in the "fiscally constrained" MTP are included in the Strategic MTP section of the MTP's Appendix. 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 years. This introductory chapter presents the vision, purpose, goals, scope, statutory requirements and decision-making process involved in development of the MTP for Clark County.

FRAMEWORK AND VISION

Development of the transportation system is one component required to support the land uses defined in local Comprehensive Growth Management Plans. 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 facilitate 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 accessibility 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 region has to plan for a future regional transportation system that can adequately support the population and employment growth projected for Clark County. 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. Intermodal connecting points are a vital part of the system.

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[1] A summary of MTP update and amendment activities can be found in Appendix C.

The MTP's goals, objectives and policies help to guide jurisdictions and agencies involved in planning and programming of transportation projects throughout Clark County.

MTP GOALS

The MTP is a long-range plan that outlines how transportation system and services will provide for the mobility and accessibility of people and freight within and through the region. The Goals of the MTP are outlined below:

- **Maintain, preserve and improve the existing regional transportation system.**

  It is important to protect the significant investment already made in the existing transportation system by maintaining and preserving the system to keep it usable. Both the structural and operational integrity of the system need to be maintained and preserved as well as the system's capacity to meet travel needs. This is a priority transportation policy at federal, state and local levels.

- **Provide a safe and secure transportation system that allows for the movement of people and freight.**

  Transportation systems must be safe and secure for users. Transportation safety is a priority concern for all transportation modes and users including vehicle drivers and passengers, bicyclists and pedestrians. Transportation system safety relates to safety features and design for all users, behavior of the user and to transportation system policing and enforcement. Transportation system security has also become a prominent concern for all transportation modes that use road, rail, air or water.

- **Support economic development and community vitality.**

  There is a significant link between transportation investment and benefits to a region's economic development and vitality. Transportation system investment can help the region's economic stability and sustainability.

  The goal relates to the strategic use of funds for transportation system investment to support new businesses that will increase the number of family wage jobs within the County.

  The goal also relates to sustaining established businesses already located in the community that currently provide jobs for Clark County workers.

- **Provide an efficient, balanced, multi-modal regional transportation system including highway, bus transit, high capacity transit, rail, aviation, marine, bicycle and pedestrian modes as well as transportation demand management and transportation system management strategies.**

  The region's transportation system must be balanced and multi-modal to accommodate transportation choices and options for people and freight. Providing connections between modes is also important as well as managing the system to make it most efficient.

- **Provide an acceptable level of mobility for personal travel and freight movement throughout the regional transportation network and adequate access to locations throughout the region.**

The transportation system must perform to provide mobility and access. This goal ranges from meeting overall travel demand, easing movement through the region, providing access to land uses throughout the region and to providing an accessible system with removal of barriers to personal mobility.

- **Provide a transportation system that is sensitive to the quality of the environment and natural resources.**

  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 include air quality, stormwater, noise, sprawl, habitat, cultural resource protection, 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.

- **Provide for the development of a financially viable and sustainable transportation system.**

  The region must be able to afford the transportation system that is planned for in the MTP or, in other words, the region needs to be able to implement the Plan.

  There are limited revenues available for transportation system development. Federal law requires that the MTP be "fiscally constrained". There must be a reasonable expectation that revenues will be available to maintain and operate the existing system as well as implement transportation projects and strategies recommended for the next 20 years.

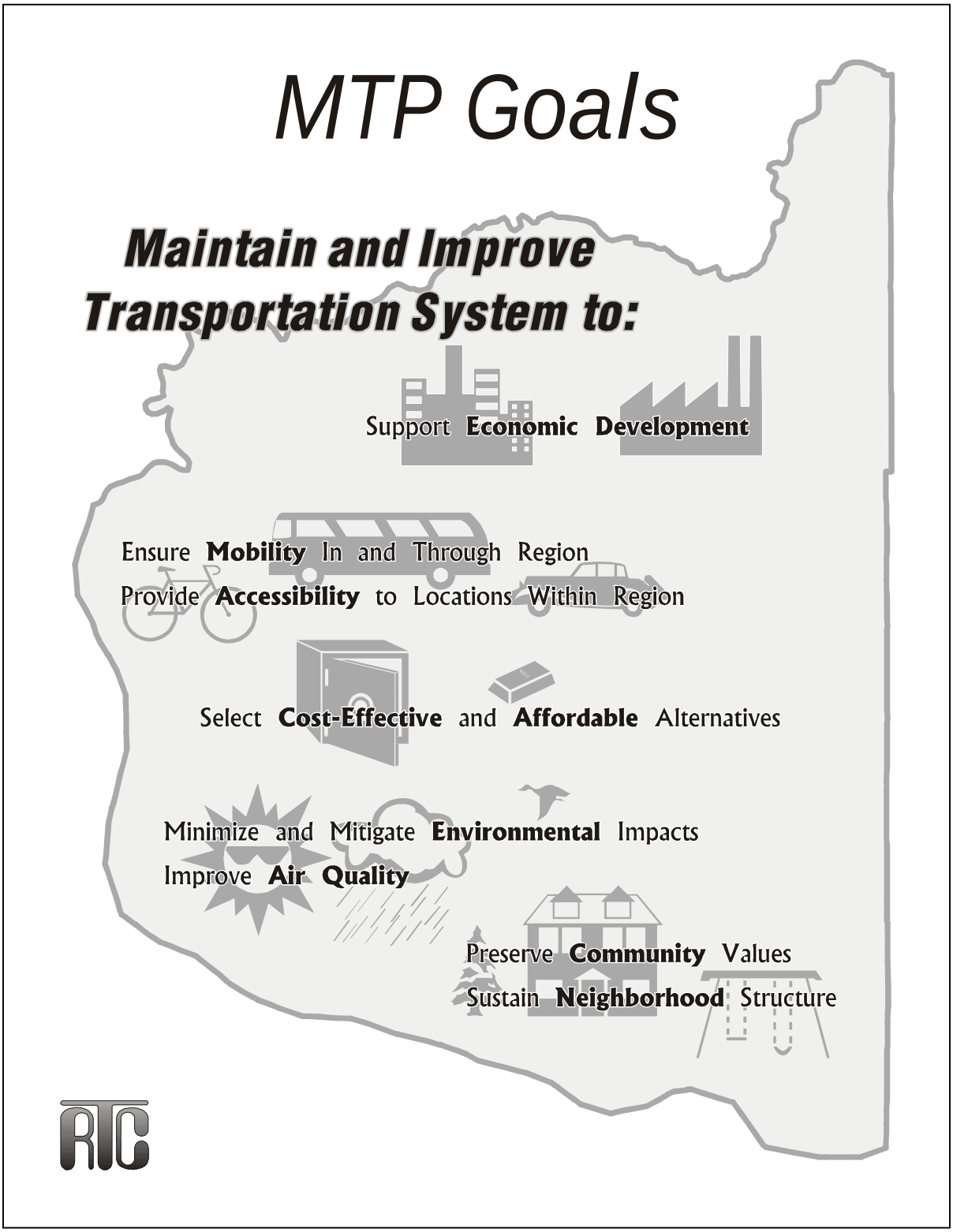
  Least cost planning, benefit/cost analysis and value engineering are some of the tools employed in Washington State to aid the decision making process relating to financial viability.

- **Provide a transportation system that reflects community vision and community values.**

  The MTP identifies a transportation system that reflects the views, values and vision of the community. As its basis, the MTP uses the community vision of local Comprehensive Plans. The MTP also reflects the community's willingness to invest in the transportation system. During the MTP development process, public comment will be sought and will be reflected in the adopted Plan.

Figure 1-1 provides an overview of MTP Goals.

Figure 1-1: RTP Goals



There is general consistency between the MTP goals outlined above and the policies established by local jurisdictions and agencies working together through the state's Growth Management Act (GMA) planning process. These planning policies constitute the Principles and Guidelines with which the transportation elements of local comprehensive plans required under the Growth Management Act are reviewed for certification purposes. Excerpts from the adopted County-wide Planning Policies relating to Transportation found in Chapter 5, Transportation Element, of the 2004 Comprehensive Growth Management Plan are re-printed in the MTP's Appendix C.

SCOPE

The MTP for Clark County takes the year 2030 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 1-2). Clark County is located in the southwestern part of the state of Washington at the head of the navigable portion of the Columbia River. The Columbia River forms the western and southern boundaries of the county and provides over 41 miles of river frontage. The county's northern boundary is formed by the Lewis River and to the east are the foothills of the Cascades. Urban Clark County is part of the northeast quadrant of the Portland, Oregon metropolitan area.

People and goods move throughout the regional transportation system without consideration for city, county, and state boundaries. Transportation problems extend beyond jurisdictional boundaries so the MTP analyzes the future transportation needs for the entire region and, at the same time, provides a cooperative framework for coordinating the individual actions of a number of jurisdictions.

Figure 1-2: Clark County Washington (location map)

TRANSPORTATION ISSUES ADDRESSED IN MTP

- Transportation system maintenance, preservation and safety.
- Emphasis on existing regional corridors to minimize neighborhood disruption.
- Development of corridors to improve economic development potential.
- The role of transit in serving peak hour commuters and in serving general transportation needs in both peak and non-peak hours.
- The future role for high capacity transit alternatives in Clark County.
- Accessibility across the Columbia River in terms of capacity, economic development, corridor location, connecting roadways.
- Encouragement of non-motorized transportation modes.
- The role of system management (TSM) and demand management (TDM) techniques in transportation provision.
- Federal, state, local and private sources of revenue for transportation capital and maintenance projects.
- Air quality impacts of regional transportation system improvements.
- The role of the private sector in transportation system development.
- Intermodal transportation facilities, such as ports, rail terminals and airports.

STATUTORY REQUIREMENTS

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

FEDERAL

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 Southwest Washington Regional Transportation Council, as the MPO, in cooperation with the Washington State Department of Transportation and C-TRAN, Clark County's transit operator, is responsible for carrying out federal transportation planning requirements. Federal requirements include the development of a long-range Metropolitan Transportation Plan.

The first RTP for Clark County was developed by the MPO and was adopted in December 1982. It established regional transportation policies and provided consistency with the regional Transportation Improvement Program (TIP). This MTP version provides a bench-mark document for local decision-makers and meets federal requirements of the FHWA and FTA. Prior to the development of the 1982 RTP, the Portland-Vancouver Metropolitan Area Transportation Study (PVMATS) served as the long-range plan for Portland and Vancouver. PVMATS was carried out by the Columbia Regional Association of Governments (CRAG) and listed a number of highway projects needed in the region by 1990.

The federal government requires the MPO to develop a Metropolitan Transportation Plan, to meet the requirements of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and its successor Act, the Transportation Equity Act for the 21st Century (TEA-21) of 1998. The current federal transportation act, SAFETEA-LU (the Safe, Accountable, Flexible, Efficient Transportation Equity Act, A Legacy for Users) builds upon the previous transportation acts. It was signed into law by President George W. Bush in August 2005. SAFETEA-LU authorizes the Federal surface transportation programs for highways, highway safety, and transit for the 5-year period 2005-2009. 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. However, before the MTP can be prepared under the new update cycle, the Plan must comply with all the revised requirements for the planning process established in SAFETEA-LU. MPOs have until July 1, 2007 to comply with the revised SAFETEA-LU requirements. Plan updates should confirm the Plan's validity and its consistency with developing trends in transportation system use and conditions.

The MPO must also select and prioritize transportation projects for programming in a **Transportation Improvement Program** (TIP). SAFETEA-LU requires that metropolitan TIPs be updated at least every 4 years and must contain at least 4 years of projects and strategies. The TIP specifies federally funded transportation projects to be implemented during the next four years. Projects are listed in the TIP based upon a realistic estimate of available revenues. Projects programmed for funding in the TIP have to be consistent with the adopted MTP.

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.

The urban transportation planning process to be followed in the development of a transportation plan shall include:

- consideration of the social, economic and environmental effects in support of Intermodal Surface Transportation Efficiency Act (1991) and the Clean Air Act,
- provisions for citizen participation,
- no discrimination on the grounds of race, color, sex, national origin, or physical disability under any program receiving federal assistance,
- special efforts to plan public mass transportation facilities and services for the elderly and for people with disabilities,
- consideration of energy conservation goals and objectives,
- involvement of appropriate public and private transportation providers, and
- the following activities as necessary, and to the degree appropriate, for the size of the metropolitan area and the complexity of its transportation problems:
    - analysis of existing conditions of travel, transportation facilities, vehicle fuel consumption and systems management,
    - projections of urban area economic, demographic, and land use activities consistent with urban development goals, and projections of potential transportation demands based on these activity levels,
    - evaluation of alternative transportation improvements to meet area-wide needs for transportation and make more efficient use of existing transportation resources and reduce energy consumption,
    - refinement of transportation plan by corridor, transit technology, and staging studies; and subarea, feasibility, location, legislative, fiscal, functional classification, institutional, and energy impact studies, and
    - monitoring and reporting of urban development, transportation and energy consumption indicators and a regular program of reappraisal of the transportation plan,

The MTP is to meet federal planning requirements outlined above and comply with provisions set forth in SAFETEA-LU, 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 directed every federal agency to make environmental justice a part of its mission. ISTEA outlined sixteen planning factors which were to be incorporated into the regional transportation planning process in non-attainment areas for carbon monoxide or ozone. TEA-21 legislation consolidated

these planning factors into seven broad areas to be considered in the planning process and SAFETEA-LU now requires security of the transportation system be a stand-alone planning factor. The growing importance of operating and managing the transportation system is recognized as a focal point for transportation planning as well as an increase in importance from prior legislation for security which previously was coupled with safety in the same planning factor. The eight planning factors are listed below and RTC's implementation of the factors as part of the metropolitan transportation planning program is reported in Chapter 7. The planning factors are:

1. Support the **economic vitality** of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency;

2. Increase the **safety** of the transportation system for motorized and non-motorized users;

3. Increase the **security** of the transportation system for motorized and non-motorized users;

4. Increase the **accessibility** and **mobility** options available to **people** and for **freight**;

5. Protect and enhance the **environment**, promote **energy conservation**, and improve **quality of life**;

6. Enhance the integration and **connectivity** of the transportation system, across and between modes, for people and freight;

7. Promote efficient **system management** and **operation**; and

8. Emphasize the **preservation** of the existing transportation system.

STATE

Metropolitan Transportation Plans are expected to be consistent with the policy framework and objectives described in Washington's Transportation Plan (WTP) 2003-2022 (WSDOT; February 2002). The WTP is required by state and federal law to be regularly updated. The update currently underway will be adopted by the Transportation Commission and will cover the period 2007-2026. It will be the basis for an investment proposal to the legislature in 2007. The 2005 update to the Washington Transportation Plan (WTP) is a blueprint for transportation programs and investments. The plan covers all modes of Washington's transportation system: roadways, ferries, public transportation, aviation, freight rail, passenger rail, marine ports and navigation, bicycles and pedestrians. The 2005 update is addressing nine key transportation issues as follows:

- **System Preservation**

  Fundamental issue: What will it take to make sure that the elements of the transportation system that we take for granted today will still be in place when we need them in two, six or twenty years?

- **System Efficiencies**

  Fundamental issue: How can we best work toward optimizing how efficiently we derive the benefits of our current transportation system facilities and those we are able to create in the future?

- **Safety**

  Fundamental issue: How do we make transportation systems and facilities throughout the state safer for their users?

- **Transportation Access**

  Fundamental issue: Where basic transportation services are indispensable for all citizens' societal engagement, how is a "safety net" for transportation needs to be provided for every citizen in every community?

- **Bottlenecks and Chokepoints**

  Fundamental issue: What opportunities for investment in new facility and system assets can help address system chokepoints and bottlenecks? What are the most effective near-term solutions through expanding capacity to move people and goods in shorter and more reliable times?

- **Contributing to a Strong Economy and Good Jobs**

  Fundamental issue: What investments in new facility and system assets can help support the state's economic vitality and strengthen the job picture?

- **Moving Freight**

  Fundamental issue: How are the special needs of freight movement to be incorporated into the state's transportation plan?

- **Building Future Visions**

  Fundamental issue: What are the visions of transportation system futures - shared and unshared - that should shape today's transportation planning to help create pathways to the future?

- **Health and Environment**

  Fundamental issue: How can transportation investments be developed, implemented and used in ways that at the same time enhance our citizens' transportation goals and our citizens' goals for healthy communities and a well-protected environment?

The WTP provides an overview of the state and its transportation systems, presents transportation issues and trends, and describes transportation issues and needs from an RTPO, a tribal and a statewide perspective. The WTP policy framework sets a course for the state's transportation future and determines which transportation investments are needed. Statewide

policy is established to achieve three key elements of a desirable future: vibrant communities, a vital economy, and a sustainable environment.

On February 20, 2002, the Washington State Transportation Commission (WSTC) adopted the Washington State Highway System Plan 2003-2022 (HSP). The HSP is a component of Washington's Transportation Plan (WTP) that addresses the state's highway system. The HSP includes a comprehensive assessment of the current deficiencies and the conceptual solutions for our state's highway system for the next 20 years. Highway System Plan solutions can be accessed through the WTP database. The database was developed through a collaborative effort between the state, Regional Transportation Planning Organizations (RTPO), Tribal Governments, local jurisdictions, transit agencies, and private transportation providers. The data was gathered as part of the planning process for Washington's Transportation Plan. The *Public Transportation and Intercity Rail Passenger Plan for Washington State, 1997-2016,* (December 1996), is the twenty-year Plan for preserving public transportation systems while improving mobility for a growing population.

WASHINGTON STATE'S REGIONAL TRANSPORTATION PLANNING PROGRAM

Washington State's Growth Management Act, 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 duties of the RTPO, as outlined in state law, include:

- Designation of the regional transportation system.

- Development of a six-year **Transportation Improvement Program** (TIP) to include regionally significant city road projects, county road projects, transit capital projects and WSDOT transportation projects. The TIP must include a financial plan.

- Development of a **Regional Transportation Plan** (RTP) to include a regional transportation strategy, identification of existing and planned facilities and programs, Level of Service standards, a financial plan, assessment of regional development patterns and capital investment using a regional transportation approach. The Plan should also establish the relationship of High Capacity Transit to other public transportation providers. The concept of least cost planning is to be used in development of the RTP.

- Review of the Regional Transportation Plan at least every two years to ensure that it is current.

- Establish guidelines and principles for development and evaluation of local comprehensive plan transportation elements and certify that the transportation elements meet the requirements of the GMA and are consistent with the MTP.

- Develop a regional Level of Service (LOS) standard for the regional system as required by the LOS Bill.

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

It is intended that the regional transportation planning process follow the listed principles. The process should:

- guide the improvement of the regional transportation system
- use regionally consistent technical methods and data
- consider environmental impacts
- ensure early and continuous public involvement
- be consistent with the local comprehensive planning process
- be an ongoing process
- incorporate multimodal planning activities
- address major capacity expansion and operational improvements to the regional transportation system
- be a partnership, including federal, state, and local governments, special districts, private sector, general public and others during conception, technical analysis, policy development and decision-making

RTC will continue the established regional transportation planning process for the MPO, supplemented by the regional transportation planning standards formulated by WSDOT for RTPOs, in order to meet the requirements of the state's 1990 Growth Management Act. To comply with the state standards the MTP will include the following components:

- description of the designated regional transportation system,
- regional transportation goals and policies. Level of service standards will be established and used to identify deficient transportation facilities and services,
- regional land use strategy. Existing and proposed land uses defined on local comprehensive land use plans determine the regional development strategy and will be used as the basis for transportation planning,

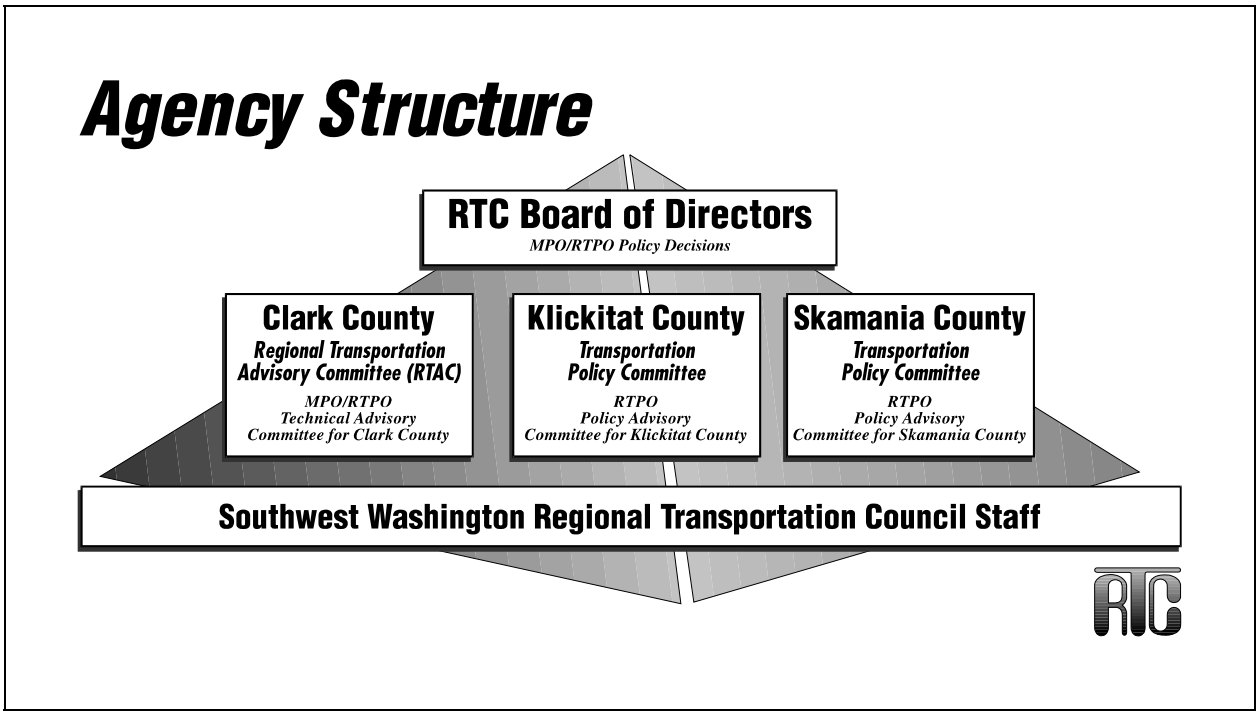
- identification of regional transportation needs. An inventory of existing regional transportation facilities and services, identification of current deficiencies and forecast of future travel demand will be carried out,
- development of financial plan for necessary transportation system improvements,
- regional transportation system improvement and strategy plan. Specific facility or service improvements, transportation system management and demand management strategies will be identified and priorities determined,
- establishment of a performance monitoring program. The performance of the transportation system will be monitored over time. The monitoring methodology, data collection and analysis techniques to be used will be outlined, and
- plans for implementation of the MTP.

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).

INTERGOVERNMENTAL COORDINATION - CLARK COUNTY MTP UPDATE DEVELOPMENT PROCESS

In order to make the MTP a Plan to provide solutions to transportation issues and problems and a Plan that all jurisdictions can subscribe to and implement, the regional transportation planning committee structure has been established. Committees are established by RTC to carry out MPO/RTPO activities and to strengthen the process of MTP development. Consistent with the 1990 GMA legislation, a three-county RTC Board of Directors has been established to serve the RTPO region. Individual County Committees and Boards also play a part in regional transportation decision-making. Current representation on the RTC Board of Directors includes three representatives from Clark County, one from Skamania County, one from Klickitat County, two from the City of Vancouver, one from small cities to the East, one from small cities to the north, one from C-TRAN, one representative of the Ports of Clark County and state legislators of the 15th, 17th, 18th and 49th districts. The role of, and 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* (July 7, 1992; amended February 3, 2004 and April 6, 2004) and *Interlocal Agreement for Establishment of the Southwest Washington Regional Transportation Council*. The regional transportation committee structure is outlined in Figure 1-3. For Clark County, the Regional Transportation Advisory Committee (RTAC) provides technical advice to the RTC Board of Directors.

Figure 1-3: RTC Agency Structure



BI-STATE COORDINATION

Clark County, Washington, forms part of the Portland-Vancouver metropolitan area. The remainder of the metropolitan area is in the state of Oregon. Planning for transportation within the metropolitan area is undertaken by two regional planning agencies, the Metropolitan Service District (Metro) in Portland, Oregon and the Southwest Washington Regional Transportation Council (RTC) in Clark County. Each agency carries out transportation planning activities for its respective geographic areas in accordance with the designated federal, state and local authority. However, since the two agencies represent the interests of a single metropolitan area it is necessary to have coordination between them to address interstate transportation issues and problems.

Coordination and cooperation in transportation planning activities between the two states are afforded by cross-representation on transportation committees and by coordination in development of the Metropolitan Transportation Plans, Transportation Improvement Programs and Unified Planning Work Programs (UPWPs) for the two respective areas. Membership of both the RTC Board of Directors and Regional Transportation Advisory Committee (RTAC) includes representatives from Oregon Department of Transportation (ODOT) and Metro. The Metro Joint Policy Advisory Committee on Transportation (JPACT) includes representatives from WSDOT, Clark County and the City of Vancouver and the Metro Transportation Policy Alternatives Committee (TPAC) includes representatives of WSDOT and RTC, with C-TRAN as an associate member. The Bi-State Coordination Committee is key to the coordination of bi-state transportation issues. The Committee is charged with reviewing all issues of bi-state significance for transportation and presenting recommended actions to RTC and JPACT.

Membership is drawn from agencies serving on JPACT and the RTC Board with representation in Washington from WSDOT, C-TRAN, City of Vancouver, Clark County, the Port of Vancouver, and a small city. In Oregon, membership is from ODOT, Tri-Met, one of the counties of the tri county region, City of Portland, Metro, the Port of Portland and smaller city.

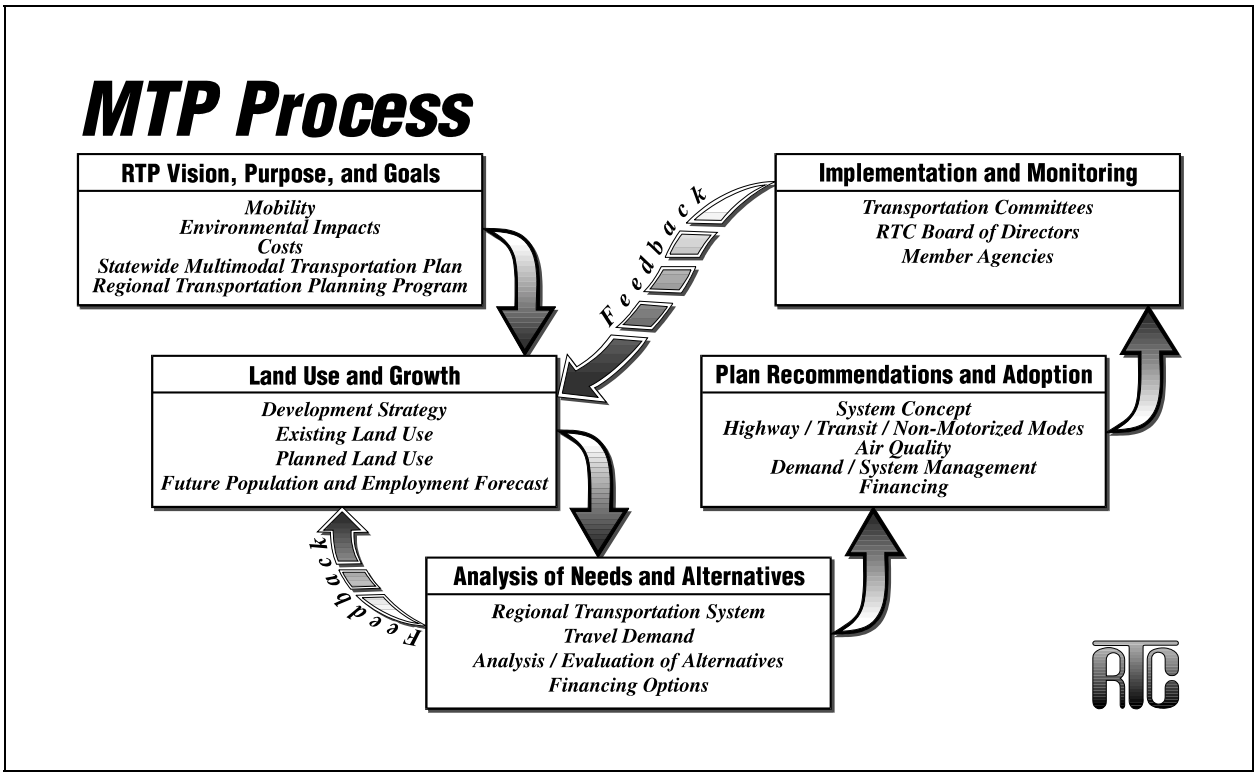
LEVEL OF SERVICE STANDARDS

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 on the transportation system and can be described by travel times, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. The Washington State Growth Management Act states that these 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. Level of service standards for Clark County, are further addressed in Chapter 3.

CLARK COUNTY METROPOLITAN TRANSPORTATION PLAN UPDATE: WORK PLAN

Development of the MTP for Clark County follows a work plan outlined in Figure 1-4. The work plan outlines major tasks to be covered in the development of the MTP. The MTP is designed as a benchmark Plan to meet federal MPO requirements for regional transportation planning in Clark County and incorporates elements required by the state regional transportation planning standards resulting from the 1990 GMA legislation and SHB 1928 legislation passed in 1994.

Figure 1-4: MTP Process



An outline of the chapters of the Plan is provided below. The MTP relies on regional transportation policies, analysis of growth trends and regional travel forecasting results to determine regional transportation needs.

OUTLINE OF MTP CHAPTERS

Chapter 1: **Introduction; MTP Vision, Purpose and Goals**. The MTP is introduced and its general goals, policies, statutory authority and purpose are described. The MTP process is outlined as well as regional transportation committee structure and intergovernmental cooperation and coordination in MTP development. The concept of level of service standards is introduced.

Chapter 2: **Regional Land Use and Growth**. Clark County's demographic data, development trends and regional development strategy are discussed. Existing and future land uses and development patterns are identified.

Chapter 3: **Identification of Regional Transportation Needs**. The regional transportation system is designated and defined. The characteristics and patterns of today's and future regional travel demand, today's transportation problem locations and future regional needs are described. Needs criteria such as acceptable levels of service, safety and accessibility are outlined. Transportation system alternatives are described and evaluated.

Chapter 4: **Financial Plan**. Revenue sources are identified and described and a plan for financing transportation system improvements is presented.

Chapter 5: **System Improvement and Strategy Plan**. Recommendations for development of the regional transportation system are made. Highways, transit systems, transportation system management and demand management are considered.

Chapter 6: **Performance Monitoring**. Performance monitoring measures are described. Procedures to maintain the MTP's consistency with the state transportation plan, local transportation plans, major land use decisions and regional demographic projections are outlined.

Chapter 7: **Plan Development and Implementation**. Provisions for involvement of the public in development of the MTP are described. Provisions for implementation of regional transportation goals, policies and actions established by the MTP are described. The MTP review and amendment process is outlined, should changing policies, financial conditions or growth patterns warrant amendment of the Plan. The GMA-required biennial review process and need for triennial update to satisfy federal requirements is described.

Appendices: The Appendices to the MTP contain a list of projects included in the regional travel forecast model for air quality planning purposes, a description of the methodology used and results of air quality conformity analysis as well as the Strategic Plan element of the MTP that outlines MTP projects and/or planning concepts that currently cannot be brought into the “fiscally-constrained” MTP but that have been considered and/or recommended in regional transportation studies and should be brought to the attention of the community for possible future inclusion into the Plan.

CHAPTER 2

LAND USE, GROWTH AND TRANSPORTATION

LAND USE AND TRANSPORTATION

In developing a metropolitan transportation plan the fundamental relationship between transportation and land use should be recognized and the effect that land use and growth have on transportation considered.

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

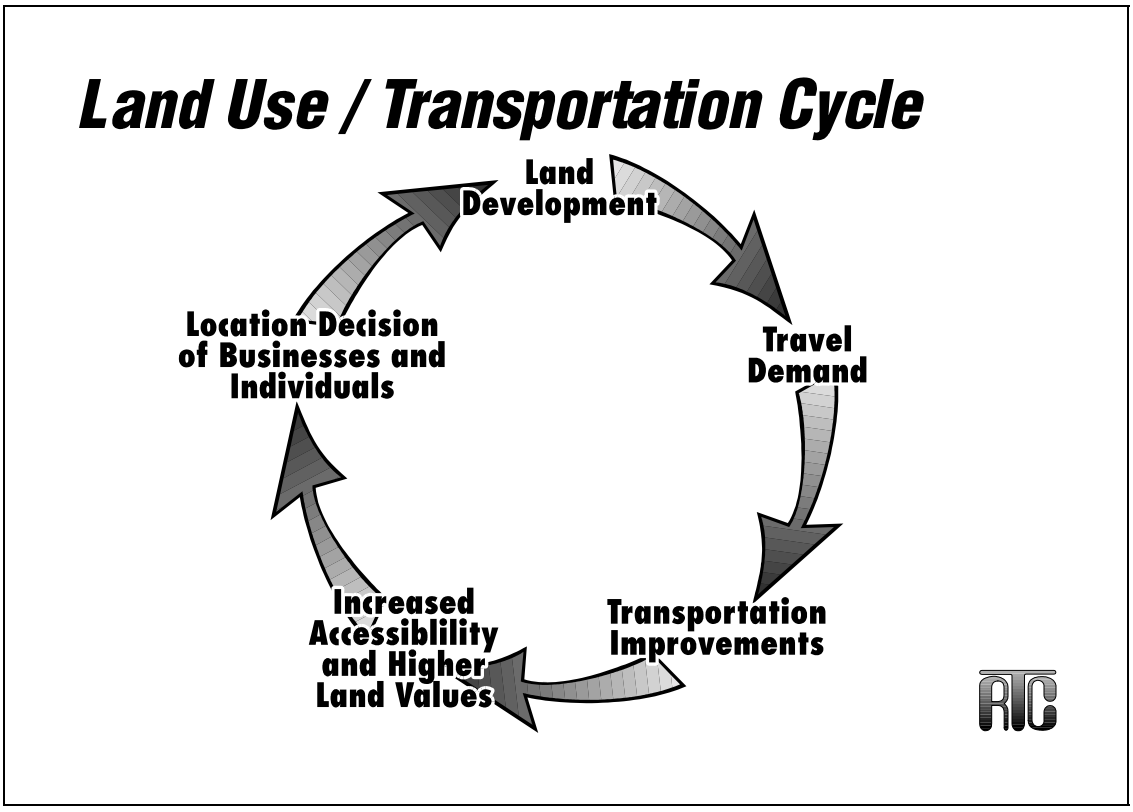
1) The spatial distribution and type of land use activity influences both the demand for travel and travel characteristics.

   Different types of land use generate and attract differing traffic rates, for example, retail land uses will generate more trips than residential land uses.

2) Improving access by expanding the transportation system allows for the development of land that was formerly inaccessible.

The Land Use/Transportation cycle is illustrated in Figure 2-1.

Figure 2-1: Land Use/Transportation Cycle



The Washington State 1990 Growth Management Act (GMA) recognized the importance of the linkage between land use and transportation. The Act requires that local comprehensive plans include a transportation element. Under the GMA, RTPOs were established to extend transportation planning. RTC was designated as RTPO for a three-county region which includes Clark, Skamania and Klickitat counties. The RTPOs were authorized to review the transportation elements of local comprehensive plans and certify that they comply with the GMA that requires consistency between land use and transportation elements.

Land use and transportation are inter-linked; land use activities largely determine travel demand and desire. When different land uses are segregated, length of trips tends to increase as, for example, people have to travel between their homes and their workplaces. To meet mobility needs, these longer trips usually have to be served by the automobile, thus reducing the use of transportation alternatives, such as walking or transit.

GROWTH AND DEVELOPMENT

Sustained economic development and growth within a region is desirable because of the economic benefits that increased employment and a larger tax base can bring. However, while growth can contribute to the health of a region's economy it can also have adverse impacts. Unmanaged, fast rates of growth can have a severe impact on the ability of a community to provide needed infrastructure and services. The costs of growth can include worsening levels of traffic congestion, decline in air quality, and overall degradation of the quality of life.

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 two decades. Between 1980 and 2000 the population of the county increased by 80% from 192,227 in 1980 to 345,238 in 2000 while the number of households increased by 85% from 68,750 in 1980 to 127,208 in 2000 (see Figure 2-2). The 1980 to 2000 increase in employment[1] in the county was 124% from 52,870 in 1980 to 118,310 in 2000. Washington State's Office of Financial Management (OFM) estimates that Clark County's 2005 population is at 391,500. The rapid growth seen in the County in the last two decades has increased demands on the regional transportation system.

[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.

Development of a transportation policy plan to provide for mobility of people and freight has to consider how to plan for a transportation system which 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.

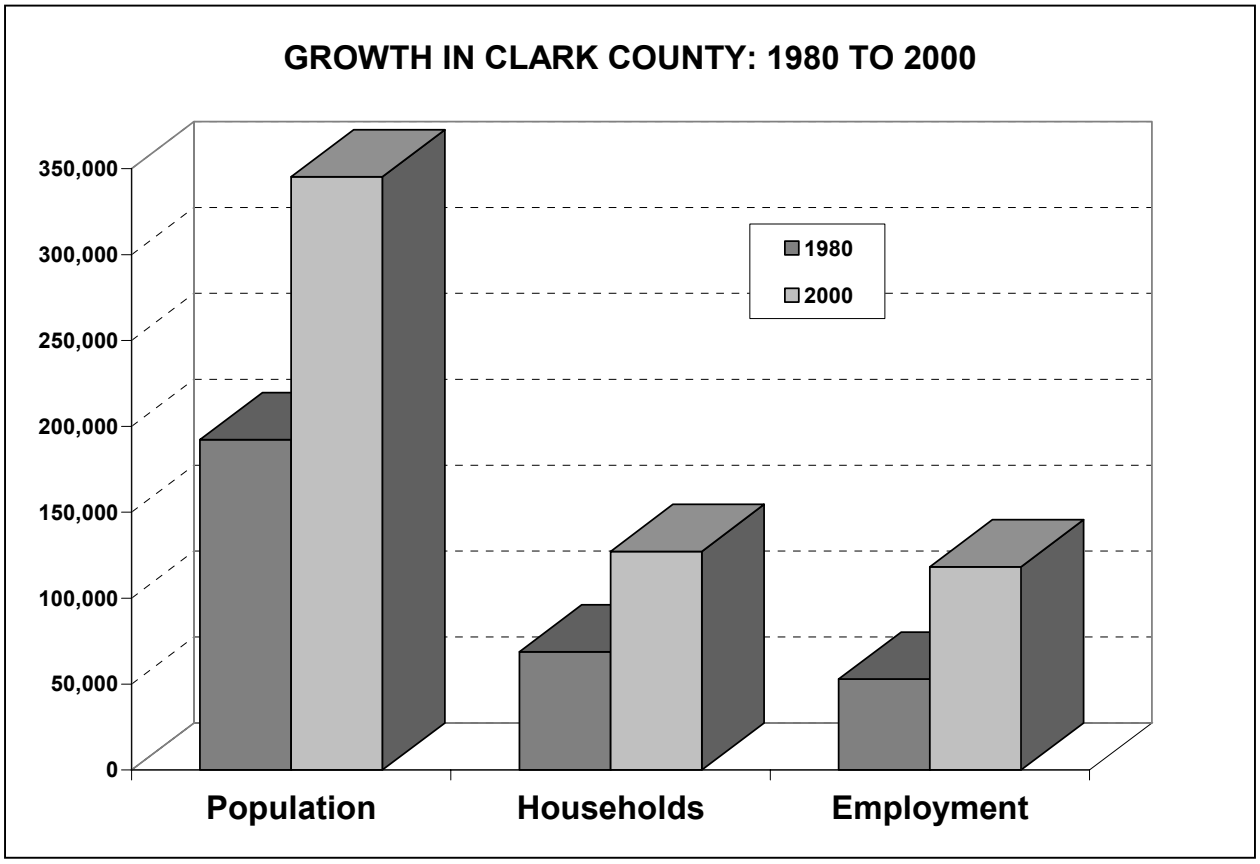


Figure 2-2: Growth in Clark County, 1980-2000

Sources: U.S. Census Bureau, U.S. Bureau of Labor Statistics

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 rapidly growing suburban band, across agricultural lands and a network of smaller cities and towns to the slopes of the 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 growth was stimulated by the development of "traditional" industries such as pulp and paper manufacturing, aluminum production and, during the wartime years, shipbuilding

activities. In recent years the county has proved to be attractive to new manufacturing activities; the region is able to offer reasonably priced land for development in an attractive setting within a metropolitan area. Power is affordable and 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 "new" high technology industries the region has been successful in diversifying its economic base. Major employers include the local school districts, Southwest Washington Medical Center, Hewlett-Packard, county and city government, Fred Meyer stores, the Bonneville Power Administration, Safeway stores, Georgia-Pacific Corporation, Burlington Northern Santa Fe Railroad, Wafertech, SEH America, Kaiser Permanente, the Vancouver Clinic, Frito-Lay, Holland-Burgerville, R S Medical, and Electric Lightwave, Inc.

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 within the county in recent years. 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.

In Clark County the past two decades has seen population growth in both the incorporated and unincorporated areas. Between 1980 and 2000 the incorporated areas saw a growth in population of 213% (57,248 population in 1980 to 178,959 in 2000) while the growth in the unincorporated areas was 23% (from 134,979 population in 1980 to 166,279 in 2000). The proportion of the population living in the unincorporated areas decreased from 70% in 1980 to 48% in 2000 while the proportion living in the incorporated areas increased from 30% in 1980 to 52% in 2000 (see Figure 2-3). Annexations by the City of Vancouver and the County's smaller cities have produced 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 2005 it is estimated at 154,800. In 2005, 202,545 (52%) of Clark Count's population lived in incorporated areas and 188,955 (48% lived in unincorporated areas.

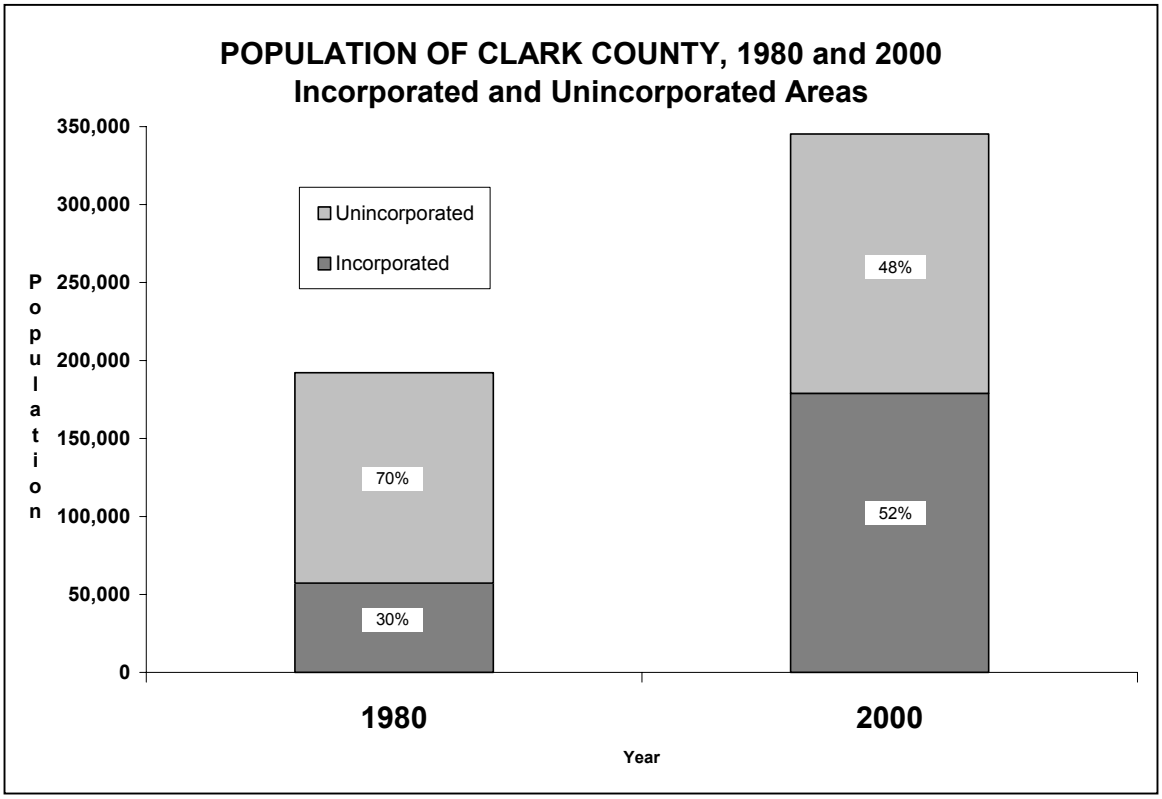


Figure 2-3: Incorporated and Unincorporated Population, 1980 and 2000

Sources: Washington State Office of Financial Management (OFM)

The provision of public facilities and services, including transportation facilities such as highways, bicycle lanes and pedestrian paths as well as transit services, is a principal 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 their mobility. An examination of land use maps for Clark County indicates 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 1980's and 1990's by offering increased accessibility to the two areas.

The City of Vancouver had seen relatively small growth in its population in the 1970's and 1980's. However, several significant annexations of land into the City boosted its population from 65,360 in 1995 to 127,900 in 1997. In 2005, Vancouver's population is estimated at 154,800. In the late 1970's and early 1980's, the focus of retail activity shifted from downtown to the are of the Vancouver regional mall and it was annexed to the City in 1992. . In the early 2000's, downtown Vancouver is seeing revitalization with opening of several office building, residential units and a new hotel and events center.

The Vancouver Mall, now known as Westfield Shoppingtown, area was a relatively isolated and undeveloped tract of the unincorporated 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 the I-205 Glenn Jackson Bridge in 1982 and SR-500 in 1984, contributed to the area's rapid development in recent years. New commercial, retail, and residential developments have been attracted to the area, including offices, shops, restaurants, hotel units and apartments. The first phase (over 440,000 square feet) of Vancouver Plaza, a retail development on 45 acres to the south-west of Vancouver Mall, opened in fall 1988 and the Parkway Plaza development to the west of the Mall has seen the completion of several large office buildings.

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 located just to the south west of the bridge, from east Clark County. Rapid development of the area to the east of I-205 followed. A lot of the County's 1990's growth focused on the Mill Plain and 164/162nd Avenue corridors in east County. A mix of residential, commercial and business development has taken place. Residential development ranges from the adult community at Fairway Village to numerous large apartment developments and the 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. Recent commercial developments have included the Fred Meyer development at SE 164th Avenue and SE 20th Street and the Mill Plain Town Center, anchored by Target, at Mill Plain and 164th Avenue. Business center developments include Columbia Tech Center and Stonemill Business Park.

Over the past 15 years, there has been significant growth in the cities of Clark County (see Table 2-1) and this trend appears to be one that is set to continue early in the 21st century. The growth in the smaller cities of Clark County will require improvements to the transportation facilities connecting these urban areas with the larger Vancouver and Portland metropolitan area and will also necessitate the development of an adequate internal circulation system within these cities.

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, 1990 to 2005

Growth in Population of Clark County Cities, 1990 to 2005						
	1990	1995	2000	2005	% Increase 1990 to 2005	2005 % of County Population
Clark County Total	238,053	286,804	345,238	391,500	64%	100.0%
Unincorporated	173,844	195,479	166,279	188,955	9%	48.3%
Incorporated	64,209	91,325	178,959	202,545	215%	51.7%
Battle Ground	3,758	5,015	9,322	14,960	298%	3.8%
Camas	6,798	8,355	12,534	15,460	127%	3.9%
La Center	483	997	1,654	2,095	334%	0.5%
Ridgefield	1,332	1,550	2,147	2,630	97%	0.7%
Vancouver	46,380	68,589	143,560	154,800	234%	39.5%
Washougal	4,764	5,808	9,595	11,350	138%	2.9%
Woodland *part*	94	154	92	90	-4%	0.0%
Yacolt	600	857	1,055	1,160	93%	0.3%

LAND USE: PLANS FOR THE FUTURE

Comprehensive plans are the means by which local jurisdictions plan for their future growth and development; they can provide a process for anticipating and influencing the orderly and coordinated development of land. Within Washington State planning authority is delegated by the state to local governments in RCW 36.70A, 35.63 and 35A.63. Before passage of the Growth Management Act, comprehensive plans were required to have a land use element showing the general distribution and location of land for various uses, as well as a circulation element showing the street system and transportation routes. Under planning provisions contained in the 1990 Growth Management Act, now codified in RCW 36.70a and RCW 47.80, local comprehensive plans are now 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.

CLARK COUNTY JURISDICTIONS' COMPREHENSIVE LAND USE PLANS AND ZONING - USE IN THE REGIONAL TRANSPORTATION PLANNING PROCESS

As part of the Growth Management planning process, Clark County adopted a *Community Framework Plan* in April 1993 to serve as a guide for the County's long-term growth over a period of fifty plus years. The *Framework Plan* envisioned a collection of distinct communities; a hierarchy of growth and activity centers with land outside the population centers to be

dedicated to farms, forests, rural development and open space. The twenty-year *Comprehensive Growth Management Plan for Clark County* is to guide the growth of the County toward the future vision. The 1994 Comprehensive Growth Management plans for the urban areas of Clark County were developed by Clark County and the cities and town of the region through a Partnership Planning process. The twenty year plans included urban area boundaries. Plans for the rural and natural resource lands are handled by Clark County. GMA plans for the County and urban areas are subject to review under the State Environmental Policy Act (SEPA). In September, 1994, the *Final Supplemental Environmental Impact Statement for the Comprehensive Growth Management Plans of Clark County, Battle Ground, Camas, La Center, Ridgefield, Vancouver, Washougal, Yacolt, Volume I and Public Comments, Volume II* was published by Clark County. The public was given many opportunities to be involved in and provide input to the planning process. In December of 1994 the Comprehensive Growth Management Plan for Clark County was adopted and in May of 1996 revisions were adopted.

In September 2004, an update to the Comprehensive Growth Management Plan for Clark County was adopted with a horizon year of 2023. The updated Comprehensive Growth Management Plan established a population forecast for 2023 of 529,612, an employment forecast of 206,235[2] jobs and a household forecast for 2023 of 196,882 households.

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 adopted land use plans of local jurisdictions. The MTP's horizon year is 2030 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 2030 horizon year was selected. 2030 land uses are based on the adopted Comprehensive Growth Management Plan for Clark County (Clark County, September 2004) which has a horizon year of 2023, extended seven years to the MTP's 2030 horizon. The 2030 demographic projections and land use allocations were developed by local jurisdictions working in partnership with RTC.

Currently, in 2005/2006, the Comprehensive Growth Management Plan for Clark County is again in the process of being updated. The update is due to be adopted in 2006. The update to the Plan will be the basis for the next MTP update.

POPULATION AND EMPLOYMENT FORECAST

For the Portland-Vancouver metropolitan region as a whole, demographic forecasts are usually formulated through a cooperative planning process led by the Metropolitan Service District (Metro), Portland, Oregon. The forecast region includes Clark County in Washington State, as well as Multnomah, Clackamas, Washington, Yamhill, Columbia and North Marion counties in Oregon. Worldwide, national and regional economic assumptions are the basis for determining

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

future forecast demographics in the region. The Growth Management Act passed in Washington State in 1990 requires that Growth Management Plans have to support a population forecast developed by the Washington Office of Financial Management (OFM). The GMA directs OFM to prepare twenty-year GMA planning projections that are updated every five years. Each County's GMA projection is expressed as a range between a reasonable High and Low projection. Counties select a GMA planning population within the range released by OFM. In this region, OFM consults with Metro and local jurisdictions in determining the forecast. In January 2002, OFM released the GMA County projections to 2025. For Clark County, the OFM projected 2025 population falls within a range from a low of 473,984 to a high of 621,763 with a mid-range projection of 544,809.

For MTP regional transportation planning purposes, a 2030 population forecast of 592,378 is used. The number of households is forecast to be 220,215, and total employment is forecast to be 238,515 in 2003. The 2030 forecasts represent a 72% increase in population from a 2000 population of 345,238, a 73% increase in households, and a 102% increase in employment from 118,310 to 238,515 Bureau of Labor Statistics (BLS) equivalent jobs or "covered employment". (see Figures 2-4 and 2-5).

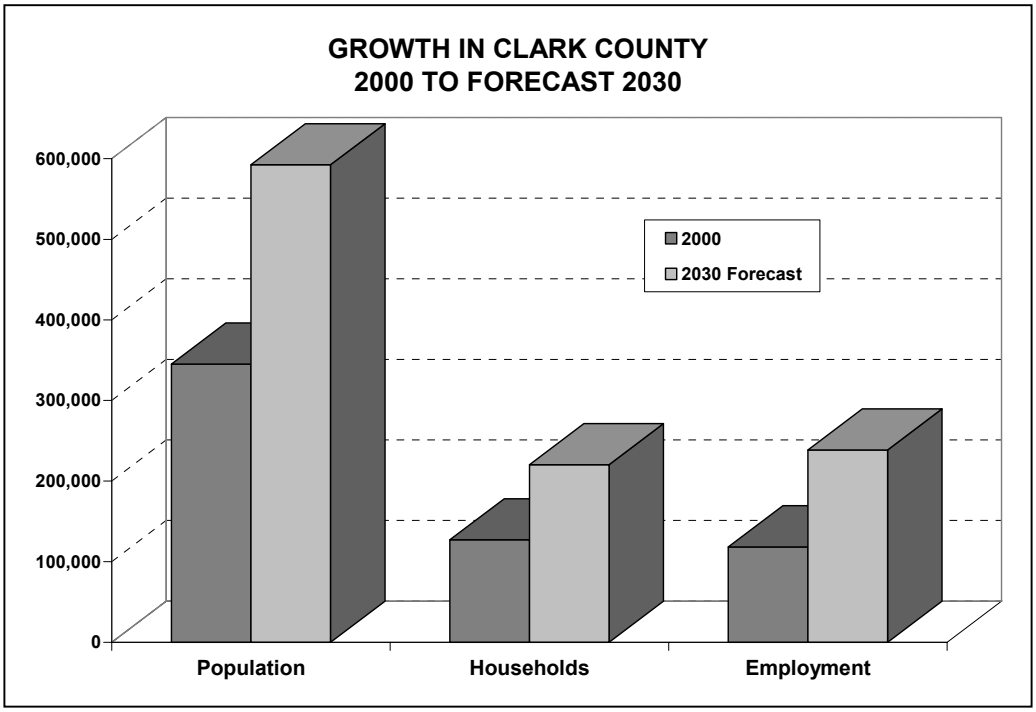
TRANSPORTATION ANALYSIS ZONES

In the regional transportation planning process the forecast growth in housing and employment for the year 2030 is converted into projections of future travel demand. For the purpose of analyzing future travel demand, a "Transportation Analysis Zone" (TAZ) System is used. The Portland metropolitan area is divided into TAZs; there are 650 zones in Clark County and 2 Clark County external zones. For each Clark County TAZ, the comprehensive plan land use designations and existing zoning are used as a basis for distributing 2030 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.

DISTRIBUTION OF FUTURE GROWTH

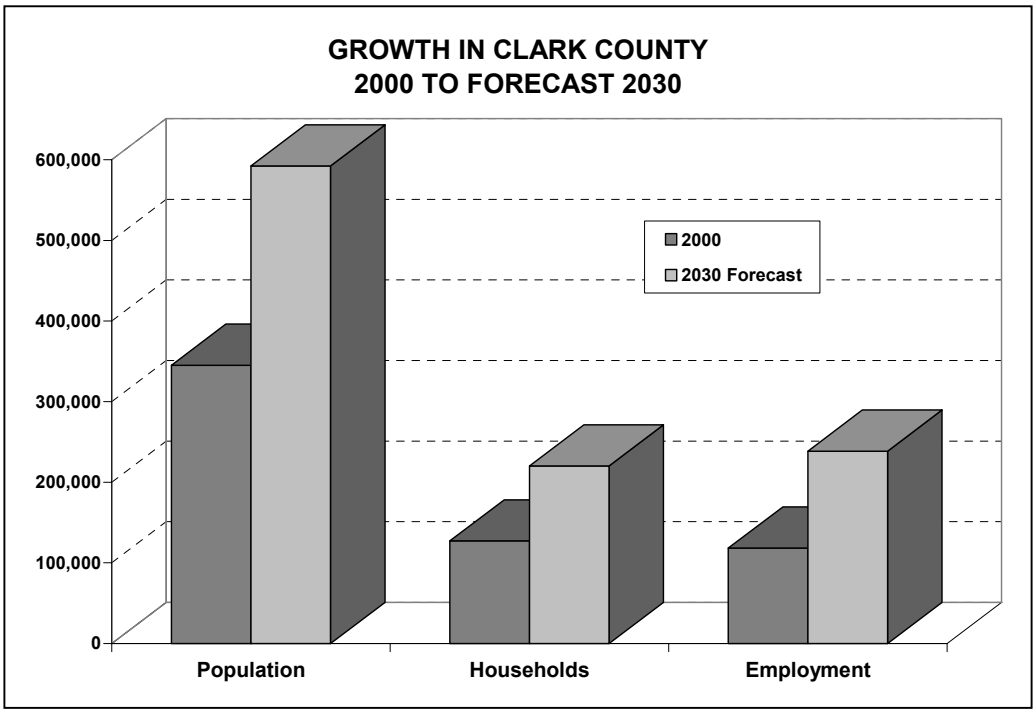
As described above, the population of Clark County is forecast to grow by 247,140 people during the planning period from 2000 to 2030 and employment is set to grow by 120,205. In growth management planning, denser patterns of development are to be encouraged along the main transportation corridors where there is transit service. In designated High Capacity Transit corridors, I-5, I-205 and SR-500/Fourth Plain, densities and appropriate urban designs are to be encouraged to maximize the efficiencies of land use and transit development. While 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, the 2004 Comprehensive Plan update forecasts the continuing growth of the smaller cities within Clark County. The smaller cities of Clark County are planning for denser development and expansion of their urban boundaries as they become the focus for growth outside of the core urban area of Vancouver.

Figure 2-4: Growth in Clark County, 2000 to Forecast 2030



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

Figure 2-5: Population, Housing and Employment in Clark County, 1980 to 2000 & Forecast 2030



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

DEMOGRAPHIC AND LAND USE TRENDS

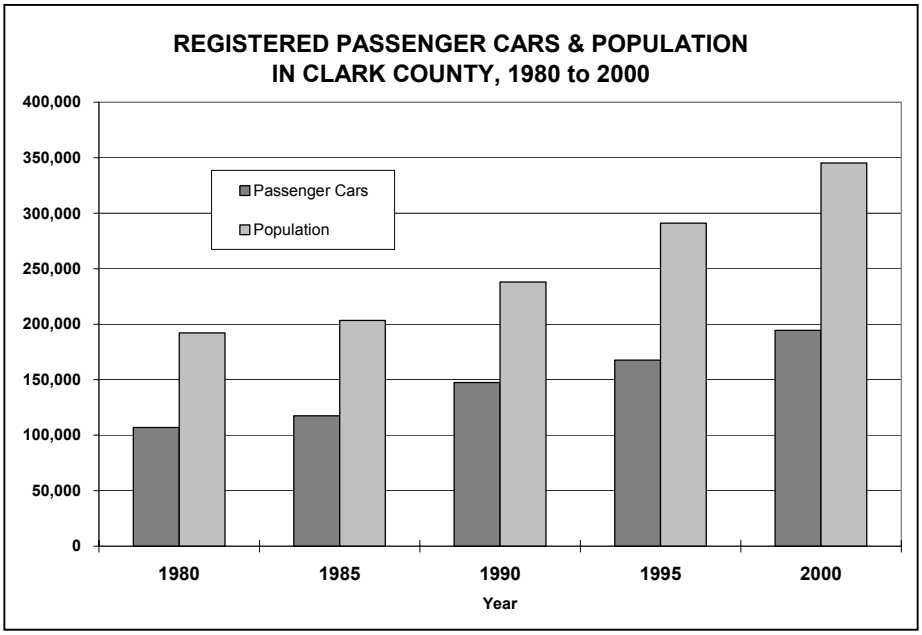
Growth in population and employment, development and resulting land use patterns together with its distribution all affect travel demand. However, other demographic factors also influence travel demand. These factors include household size, workforce participation, employment patterns and vehicle ownership. While the decades of the 1970s and 1980s saw significant change in these demographics, the decade of the 1990s did not see as much change.

Household size is one of the most significant demographic factors that influences land use and demand for transportation services. Decreased household size can 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. However, 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 there were 81% 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 1990's saw no change in average household size in Clark County with the 2000 U.S. Census recording an average 2.69 persons per household in Clark County. Consistent with the Comprehensive Growth Management for Clark County (September 2004), the number of persons per household in the MTP is forecast to be 2.69 in 2030.

Another demographic trend that affects travel demand is the increase in two-worker households. Typically, the two workers in the household each use an auto to get to work, use the auto for work purposes while at work, use it to run errands at lunch time and before or after work and, if they have a family, to take their children to daycare facilities. All result in people's increased reliance on the automobile that people consider their most convenient transportation mode. Employment patterns have also been changing, with a relative decline seen in the traditional, blue-collar, industrial jobs and an increase in service sector employment. Clark County has seen this change in employment structure and has seen 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 such as Clark County and employment is dispersing throughout the region. The "new" suburban places of employment have also 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.

Travel demand has also grown as the number of registered passenger cars in Clark County has increased. From 1960 to 1980 there was a 171% increase in passenger cars registered in Clark County (from 39,502 to 106,889 cars). In the period, 1960 to 1980, population increased by 105% from 93,809 to 192,227. However, in the past two decades, from 1980 to 2000, the percentage increase in population and passenger cars has been very similar with an 82% increase in passenger cars and an 80% increase in population. (see Figure 2-6).

Figure 2-6: Registered Passenger Cars & Population in Clark County, 1980-2000



Source: U.S Census Bureau, Washington State Department of Licensing

Table 2-2 shows the 1970 to 2000 increase in registered passenger cars and total registered vehicles (includes all trucks, commercial and recreational vehicles plus passenger cars) in Clark County. The number of passenger cars per household has increased at the same time as household size has decreased.

Table 2-2: Clark County Demographic Data, 1970, 1980, 1990 and 2000

CLARK COUNTY GROWTH TRENDS: 1970, 1980, 1990 and 2000										
Year	Popn.	Housing Units	Households	Persons per House-hold[1]	Jobs in Clark County[2]	Jobs per Household	Registered Passenger Cars	Registered Passenger Cars Per Household	Registered Vehicles	Registered Vehicles Per Household
1970	128,454	42,816	41,064	3.10	32,610	0.79	62,586	1.52	95,788	2.33
1980	192,227	72,806	68,750	2.76	52,870	0.77	106,889	1.55	171,474	2.49
1990	238,053	92,849	88,440	2.69	80,100	0.91	147,401	1.67	238,629	2.70
2000	345,238	134,030	127,208	2.69	118,310	0.93	194,492	1.53	301,104	2.37

Source: U.S. Bureau of the Census, Washington State Department of Licensing and Washington Office of Financial Management.
[1] from census data
[2] Bureau of Labor Statistics (covered jobs)

Tables 2-3 and 2-4 also provide information that compares 1990 and 2000 census demographic data which is of relevance in the metropolitan regional transportation planning process.

Table 2-3: Summary of Clark County Demographics

		1990	1990 %	2000	2000 %
Population		**238,053**		**345,238**	
Age:	Under 70	221,034	92.9%	312,430	90.5%
	70 and Over	17,019	7.1%	32,808	9.5%
Race:	White	225,192	94.6%	306,648	88.8%
	Black or African American	2,976	1.3%	5,813	1.7%
	American Indian and Alaska Native	2,296	1.0%	2,910	0.8%
	Asian*	5,670	2.4%	11,095	3.2%
	Other*	1,919	0.8%	18,772	5.4%
Origin:	Non-Hispanic/Non-Latino	232,181	97.5%	328,990	95.3%
	Hispanic/Latino	5,872	2.5%	16,248	4.7%
Language Spoken at Home	Population over 5 years	219,563	100%	318,152	100%
	Speak English Only	207,291	94.4%	281,613	88.5%
	Language other than English	12,272	5.6%	36,539	11.5%
	Speak English less than "Very Well"	4,556	2.1%	17,638	5.5%
Poverty:	Total Population for whom poverty status is determined	212,660	100%	341,464	100%
	Poverty Status (as defined by U.S. Census Bureau)	21,910	10.3%	31,027	9.1%

Source: U.S. Census Bureau

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

Table 2-4: Clark County Journey to Work

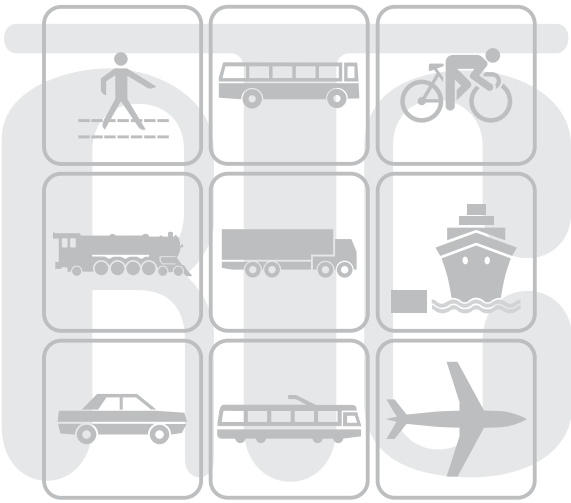
Clark County	1990	1990 Percent	2000	2000 Percent	1990 to 2000 Growth	1990 to 2000 Percent Growth
Commuters	108,945		161,471		52,526	48.2%
Drive Alone	87,748	80.5%	128,014	79.3%	40,266	45.9%
Carpool	12,017	11.0%	18,089	11.2%	6,072	50.5%
Transit	2,275	2.1%	4,228	2.6%	1,953	85.8%
Other	1,224	1.1%	1,788	1.1%	564	46.1%
Walk and Home	5,681	5.2%	9,352	5.8%	3,671	64.6%
Mean Travel Time to Work (those that work outside home)	21.2 mins.	N/A	24.7 mins.	N/A	3.5 mins.	16.5%

Source: U.S. Census Bureau

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.

Table 2-5: Summary of Clark County Growth Forecasts

CLARK COUNTY 2000 TO 2030 GROWTH FORECASTS: MTP			
	2000	MTP 2030	% Change 2000 to 2030
Population	345,238	592,378	72%
Households	127,203	220,215	73%
Employment	118,310	238,515	102%



CHAPTER 3

IDENTIFICATION OF REGIONAL TRANSPORTATION NEEDS

INVENTORY OF THE EXISTING REGIONAL TRANSPORTATION SYSTEM

As an introduction to planning for the future development of a regional transportation system, an inventory of the existing system is provided. Also, a brief description of the context for regional transportation planning, with regard to meeting federal requirements and designation of federal transportation area boundaries is described.

FEDERAL TRANSPORTATION BOUNDARIES

The federal Transportation Act requires that an **Urban Area Boundary** (UAB) is defined to delineate areas that are urban in nature distinct from those that are largely rural in nature. The federal transportation Urban Area Boundary is not to be confused with the Urban Growth Areas established under the Washington State Growth Management Act (GMA), as described in Chapter 2. The federal UAB should cover, at a minimum, the area designated by the decennial U.S. Census as "urbanized" by meeting certain population and density criteria. Following the 2000 Census, the Vancouver urbanized area encompasses Vancouver as well as urbanized areas of unincorporated Clark County, Camas, Washougal and Battle Ground. Also, following the 2000 census, the Hockinson Census Designated Place was defined as an Urban Place as its population was over 5,000. (Refer to Figure 3-1; *Transportation Boundaries*).

ISTEA also called for MPO's to establish a **Metropolitan Area Boundary** which marks the area to be covered by MPO regional transportation planning activities and which, at a minimum, has to include the urban area, the contiguous area expected to be urbanized within the next twenty years, and in air quality attainment areas must include the area enclosed by the **attainment area boundary** which in the Clark County region is the Vancouver Air Quality Maintenance Area[1]. The Metropolitan Area Boundary established for the Clark County region includes the whole of Clark county (refer to Figure 3-1; *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. Within TMAs, the MPO must develop a congestion management system which was first adopted by the RTC Board in May 1995 (RTC Board Resolution 05-95-14) and a report on congestion management within the region has been updated by RTC annually. The MPO has authority to select, in consultation with the state, projects to receive federal funds (see Chapter 4 for further details).

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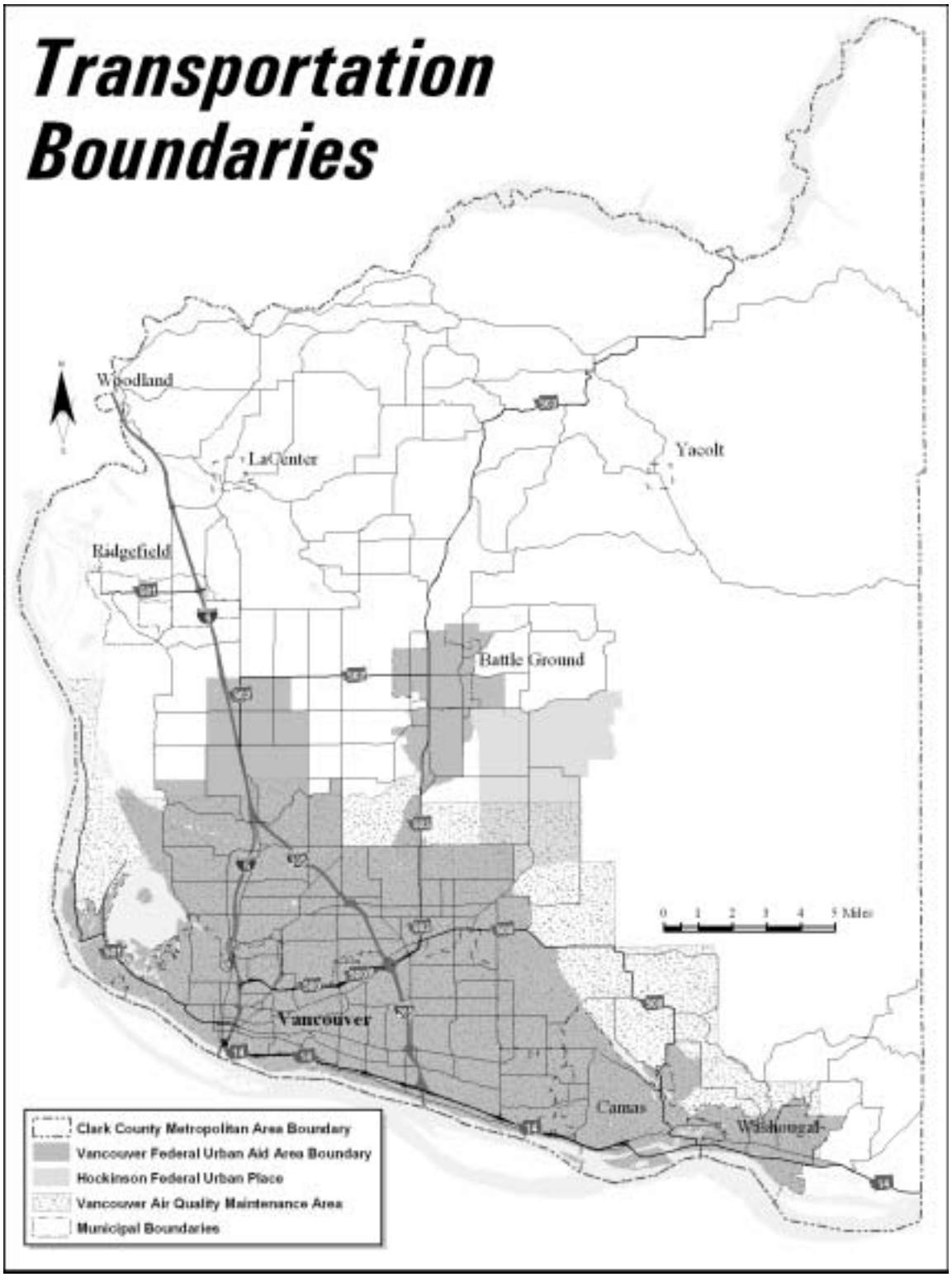
[1] Although classified in the early 1990's by the Environmental Protection Agency (EPA) as a moderate non-attainment area for carbon monoxide and a marginal non-attainment area for ozone, the Vancouver area has since attained unclassifiable/attainment status for the ozone pollutant and maintenance status for carbon monoxide. Air quality has implications for regional transportation planning as the region strives to maintain national ambient air quality standards.

Figure 3-1: Transportation Boundaries



FUNCTIONAL CLASSIFICATION OF THE REGIONAL HIGHWAY SYSTEM

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

The Federal Functional Classification system for Clark County usually undergoes a comprehensive update at least once every decade following the results of the decennial census and accompanying changes made to the federally recognized Urbanized Area and to the Urban Area Boundary (UAB) for the region. Details of the process for changing the UAB and federal functional classification system are described on Washington State Depart of Transportation's web site at http://www.wsdot.wa.gov/mapsdata/tdo/functionalclass.htm. Revisions to the functional classification system for the Clark County region were approved by the Federal Highway Administration in December 2003. A comprehensive review of the federal functional classification system for the Clark County region will be made to ensure as close consistency as possible to local classification systems as part of the comprehensive growth management planning process in 2006. Clark County maintains a local classification system as part of its Comprehensive Growth Management Plan. This classification system is reported in the Clark County Arterial Atlas, approved by the Board of County Commissioners, and shows arterial and local street cross-sections anticipated for roads in Clark County within the next twenty years.

As a pre-requisite for review of the federal functional classification system, the Urban Area Boundary must be defined (refer to Figure 3-1; *Transportation Boundaries*). 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. Generally, minor collectors in rural areas are not eligible for federal funding. A description of the urban functional classification categories follows:

PRINCIPAL ARTERIALS

Principal arterials permit traffic flow through the urban area and between major elements of the urban area. They are of great importance in the regional transportation system as they interconnect major traffic generators, such as the central business district and regional shopping centers, to other major activity centers and carry a high proportion of the total urban area travel on a minimum of roadway mileage. They also carry traffic between communities. Frequently principal arterials carry important intra-urban as well as intercity bus routes.

Many principal arterials are fully or partially controlled access facilities emphasizing the through movement of traffic. Within the category are (1) interstates (2) other freeways and expressways and (3) other principal arterials.

Spacing of principal arterials may vary from less than one mile in highly developed central business areas to five miles or more in the sparsely developed urban fringes.

MINOR ARTERIALS

Minor arterials collect and distribute traffic from principal arterials to lesser classified streets, or allow for traffic to directly access their destinations. They serve secondary traffic generators such as community business centers, neighborhood shopping centers, multiple residence areas, and traffic from neighborhood to neighborhood within a community. Access to land use activities is generally permitted. Such facilities are usually spaced under two miles apart and in core areas can be spaced at 1/8 to 1/2 mile apart.

COLLECTORS

Collectors provide for land access and traffic circulation within residential neighborhoods and commercial and industrial areas. They distribute traffic movements from such areas to the arterial system. Collectors do not handle long through trips and are not continuous for any great length.

LOCAL STREETS

Local streets provide direct access to abutting land and access to the higher classification facilities. They offer the lowest level of mobility and usually contain no bus routes. They are not intended to carry through traffic but make up a large percentage of the total street mileage.

Rural roads consist of those facilities that are outside of urban areas. They too are categorized into functional classifications:

RURAL PRINCIPAL ARTERIALS

Rural principal arterials are sub-divided into two sets (1) interstate facilities and (2) other principal arterials. They consist of a connected rural network of continuous routes and provide an integrated network without stub connections.

RURAL MINOR ARTERIALS

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

The other rural road classifications are:

Rural Major Collector Roads (are eligible for federal funding)

Rural Minor Collector Roads (are not eligible for federal funding) and

Rural Local Roads

NATIONAL HIGHWAY SYSTEM (NHS)

ISTEA also required that roads be designated as National Highway System (NHS) facilities. Congress approved the NHS System with passage of the National Highway System Designation Act of 1995 (NHS Act). In Clark County the roads listed in Table 3-1 have been designated as NHS facilities.

Table 3-1: Designated NHS Facilities; Clark County

DESIGNATED NHS FACILITIES - Clark County	
Facility	**Extent**
I-5	Oregon State Line to Clark County line (north)
I-205	Oregon State Line to I-5 Interchange
SR-14	I-5 to Clark County line (east)
SR-500	I-5 to SR-503/Fourth Plain intersection
SR-501	I-5 to Port of Vancouver access
SR-502	I-5 to SR-503 intersection
SR-503	SR-500/Fourth Plain intersection to SR-502 intersection

HIGHWAYS OF STATEWIDE SIGNIFICANCE (HSS)

In 1999 the state legislature adopted Highways of Statewide Significance, fulfilling a requirement of House Bill 1487 passed in 1998. In Clark County highway facilities defined as "of Statewide Significance" are I-5, I-205, SR-14 and part of SR-501 to access the Port of Vancouver.

Figure 3-2: 2023 Regional Transportation System

Designation Of The RTP Regional Transportation System

Consistent with the state's Regional Transportation Planning Program Planning Standards, the designated MTP regional transportation system (see Figure 3-2) includes:

1. All state transportation facilities and services (including highways, state-owned park-and-ride lots etc.).

2. All local freeways, expressways, and principal arterials (the definition of principal arterials can be the same as used for federal classification or be regionally determined).

3. All high-capacity transit systems (any express-oriented transit service operating on an exclusive right-of-way including high occupancy vehicle (HOV) lanes).

4. All other transportation facilities and services, including airports, transit services and facilities, roadways, rail facilities, marine transportation facilities etc. that the RTPO considers necessary to complete the regional plan.

5. Any transportation facility or service that regional need or impact places in the plan, as determined by the RTPO.

It is the designated regional transportation system that is the focus for transportation planning in the MTP.

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

1. **All state transportation facilities and services** (including state highways, state owned park and ride lots etc.)

In Clark County this category includes Interstate facilities I-5 and I-205.

Clark County has a 20.78 mile section of **I-5**, the major interstate freeway serving the west coast of the U.S.A.. I-5 provides for north-south travel and is used for interstate travel from southern California, through the state of Oregon northward through Washington State to the Canadian border. I-5 crosses the Columbia River from Oregon to Washington over the Interstate Bridge. I-5 has three lanes in each direction from the Interstate Bridge north to the 99th Street off-ramp and the widening of the section from 99th Street north to 134th Street to three lanes in each direction will soon be complete. North of the I-5/I-205 interchange there are three travel lanes in each direction.

A 10.07 mile stretch of **I-205** traverses Clark County until it joins I-5 just north of N.E. 134th Street. I-205 was constructed as an alternative route to I-5, as a by-pass facility through the Portland/Vancouver metropolitan area. I-205 crosses the Columbia River over the Glenn Jackson Bridge that was opened in 1982. The Glenn Jackson Bridge has four travel lanes in each direction. North of the bridge the facility has three lanes in each direction to a point just north of the interchange with SR-500. I-205 continues as a two lane in each direction facility until it joins I-5, just north of 134th Street.

State routes in Clark County include SR-14, SR-500, SR-501, SR-502 and SR-503.

SR-14 provides the main east-west access from the southwest of Washington state to the southeast of the state along the north bank of the Columbia River. The facility extends 21.77 miles through Clark County to the Skamania County line with two lanes in each direction up to milepost 12 and one lane in each direction thereafter.

SR-500 is a 20.37-mile facility entirely within Clark County and allows for east-west cross-county travel. It crosses I-205, provides access to the Orchards area, then traverses rural Clark County until it reaches the Camas urban area. SR-500 intersects with SR-14 in Camas. The facility carries traffic to and from the Clark County regional shopping mall. The segment of SR-500 between I-5 and I-205 was first opened as a limited access facility in 1984.

SR-501 is comprised of two unconnected segments. The south segment extends from the interchange with I-5 westward with three lanes in each direction along the Mill Plain/15th Street couplet to Columbia Street. West of Columbia the facility is two lanes in each direction. This segment of SR-501 carries traffic to and from the Port of Vancouver. The facility reduces to two lanes, one in each direction, and branches into two in the Vancouver Lake lowlands area with both branches terminating in the lowlands. The northern segment of SR-501 extends as a two-lane facility from I-5 westward to the City of Ridgefield where it terminates. Originally it was intended that the two segments be joined to complete a circumferential route around the westside of the Vancouver urban area and to carry traffic to and from the lowlands industrial area. However, the facility was never completed.

SR-502 extends from the I-5/N.E. 179th Street interchange northward to N.E. 219th Street where it turns eastbound toward Battle Ground.

SR-503 extends northward from its intersection with SR-500. It carries traffic between the Vancouver urban area and North County through Battle Ground. SR-503 extends into Cowlitz County.

Table 3-2: State Route Mileage in Clark County

STATE ROUTE MILEAGE IN CLARK COUNTY					
Facility	**Beginning Mile Post**	**Begins at: (Description)**	**Ending Mile Post**	**Ends at: (Description)**	**Route Mileage**
I-5	0	Oregon State Line on Interstate Bridge	20.78	Cowlitz Co. Line	20.78
I-205	0	Oregon State Line on Glenn Jackson Bridge	10.57	Interchange with SR-5	10.57
SR-14	0	Interchange with SR-5, Vancouver	21.77	Skamania Co. Line	21.77
SR-500	0	Interchange with SR-5	20.37	Intersection with SR-14, Camas	20.37
SR-501 S. Section	0	Interchange with SR-5	12.72	Terminus of south segment	12.72
SR-501 Couplet	0.61	Interchange with SR-5	1.16	Franklin Street City of Vancouver	0.55
SR-501 N. Section	16.91	City of Ridgefield	19.88	Interchange with I-5/ N.E. 269th St.	2.97
SR-502	0	Intersection with SR-5, at N.E. 179th St.	7.56	Intersection with SR-503	7.56
SR-503	0	Intersection with SR-500	27.87	Cowlitz Co. line	27.87

2. **All local freeways, expressways, and principal arterials**

Local expressways and principal arterials are also designated as part of the regional transportation system. Principal arterials, such as Mill Plain, Fourth Plain, N.E. 78th Street, Padden Parkway, N.E. 112th Avenue, SE/NE164th/162nd Avenue and segments of St. John's and Andresen are included. Future planned arterials on the regional system, such as an extension of NE 18th Street extension west from NE 102nd Avenue to NE 87th Avenue, are marked on Figure 3-2 by a dashed red line.

3. **All high-capacity transit systems** (any express-oriented transit service operating on an exclusive right-of-way including high occupancy vehicle (HOV) lanes).

The I-5 (from State line to the vicinity of NE 134th Street), I-205 (from state line to vicinity of NE 134th Street) and SR-500 (from I-5 to the Orchards area) corridors are designated as High Capacity Transit (HCT) corridors. See the MTP's Strategic Plan in Appendix B for further information on planning for HCT in the Clark County region.

4. **All other transportation facilities and services considered necessary to complete the regional transportation plan**. These include transit services and facilities, roadways, rail facilities, airports, marine transportation facilities etc.

Clark County Public Transportation Benefit Authority (C-TRAN) provides public transit service in Clark County. All C-TRAN's system and facilities are included as part of the designated regional transportation system.

Early in 2005, C-TRAN convened a Public Transportation Improvement Conference (PTIC) to reconsider the Public Transportation Benefit Area service and taxing boundary. The PTIC designated a new boundary which took effect June 1, 2005. C-TRAN's new boundary has been reduced from county-wide service to an area that includes the City of Vancouver and its urban growth boundary, and the city limits only of Battle Ground, Camas, La Center, Ridgefield, Washougal, and the Town of Yacolt. In September 2005, voters approved an additional 0.2 percent sales tax for C-TRAN, avoiding significant service reductions, preserving existing service, and restoring service to outlying cities.

C-TRAN operates a FIXED ROUTE BUS SYSTEM on urban and suburban routes as well as premium commuter bus service to Portland, Oregon. C-TRAN also provides general purpose dial-a-ride service and Americans with Disabilities Act (ADA)-compliant paratransit service. Figure 3-2 maps C-TRAN's fixed route system. Table 3-3 summarizes the fixed-route bus system. C-TRAN operates 17 local urban routes, 8 premium commuter routes, and 5 innovative transit/dial-a-ride services. Operating hours are generally 5:15 a.m. to 9:15 p.m. on weekdays, 6:45 a.m. to 8:15 p.m. on Saturdays, 8:00 a.m. to 6:00 p.m. on Sundays/Holidays.

Prior to the September 2005 C-TRAN funding vote, there was a proposal to eliminate direct commuter service to downtown Portland. However, the C-TRAN Board of Directors took steps to preserve this commuter service. In May 2005, the C-TRAN Board authorized a fare increase to include a Premium Commuter Fare for express bus service to downtown Portland. Following the September 2005 voter approval of additional sales tax funding for C-TRAN, Premium Commuter service to downtown Portland continues to be provided for trips where ridership can ensure full-cost recovery. There is also a lower cost bi-state commuter service from C-TRAN park and ride lots to MAX light rail stations at Parkrose (I-205 corridor) and the Expo Center (I-5 corridor) in Portland, Oregon.

Figure 3-2 maps C-TRAN's fixed route system. Table 3-3 summarizes C-TRAN's fixed route bus system.

Table 3-3: C-TRAN Fixed Route System

Bus Route	Route Name	Weekday Service First Run Begins	Weekday Service Last Run Begins	Weekday Service Frequency (Peak)	Area Served (TC=Transit Center, P&R=Park & Ride)
1	Fruit Valley	6:05 am	8:55 pm	30 min.	7th St. TC to west Vancouver
2	Lincoln/ Felida	5:45 am	8:45 pm	30 min.	7th St. TC to neighborhoods north of downtown Vancouver and Felida to Salmon Creek PR
3	City Center	5:24 am	9:00 pm	15 min.	7th St. TC loop around city center area: courthouse, clinics, schools, and waterfront
4	Fourth Plain	4:55 am	9:43 pm	15 min.	7th St. TC to Vancouver Mall TC via Fourth Plain
6	Hazel Dell	5:40 am	9:00 pm	30 min.	7th St. TC to Salmon Creek P&R on west side of I-5
25	St. Johns	5:45 am	9:07 pm	30 min.	7th St. TC to V.A Hospital, Clark College & Minnehaha area via St. Johns
30	Burton	5:05 am	9:00 pm	30 min.	7th St. TC to Fisher's Landing TC via Burton Rd.
32	Evergreen	5:45 am	9:00 pm	30 min.	7th St. TC to Vancouver Mall TC via Evergreen Blvd./Andresen, interlines with Route. 80
37	Mill Plain	4:58 am.	9:21 pm	15 min.	7th St. TC to Fisher's Landing TC via Mill Plain Blvd.
39	Clark College/ Medical Ctr.	5:43 am	7:50 pm	60 min.	7th St. TC to Clark College and Southwest Washington Medical Center
71	Highway 99	5:20am	9:23pm	15 min.	7th St. TC to Salmon Creek P&R on east of I-5
72	Orchards	5:10 am	9:01 pm	30 min.	Vancouver Mall TC to Orchards area
76	NE 63rd St./ Eastridge	5:30 am	8:51 pm	30 min.	Vancouver Mall TC to Sifton/Five Corners

Bus Route	Route Name	Weekday Service First Run Begins	Weekday Service Last Run Begins	Weekday Service Frequency (Peak)	Area Served (TC=Transit Center, P&R=Park & Ride)
78	78th St.	6:15 am	8:34 pm	60 min.	Vancouver Mall TC to Hazel Dell via 78th St./Andresen Rd.
80	Van Mall TC/ Fisher's Landing TC	5:22 am	8:32 pm	30 min.	Fisher's Landing TC to Vancouver Mall TC, interlines with #32
92	Camas/ Washougal	6:18 am	8:40 pm	30 min.	Fisher's Landing TC to Camas & Washougal
105	I-5 Express	5:45 am	5:59 pm	Peak only	Express from 7th St. TC to downtown Portland
114	Camas/ Washougal Limited	6:30 am	5:15 pm	1 am trip/ 1 pm trip	Express from Camas/ Washougal via SR 14 & 7th St. TC to downtown Portland
134	Salmon Creek Express	5:20 am	6:30 pm	Peak only	Express from Salmon Creek P&R to downtown Portland
157	BPA/Lloyd Center Limited	6:08 am	5:02 pm	3 am trips/ 3 pm trips	Express from Van Mall TC via BPA P&R to Lloyd Center (Portland)
164	Fisher's Landing Express	5:20 am	6:45 pm	Peak only	Express service from Fisher's Landing TC to downtown Portland
165	Parkrose Express	5:50 am	6:20 pm.	All Day	Express from Fisher's Landing TC to Parkrose TC (Portland)
173	Battle Ground Limited	6:35 am	5:35 pm	1 am trip/ 1 pm trip	Express service from Battle Ground P&R to 7th St. TC
177	Evergreen Express	6:00 am	5:15 pm	Peak only	Express from Evergreen P&R via Rose Quarter to downtown Portland
190	Marquam Hill Express	6:00 am	4:45 pm	2 am trips/ 2 pm trips	Express from Vancouver Mall TC via Kmart P&R and BPA P&R to Marquam Hill (Portland)

During regular C-TRAN service hours, a connection is provided between the Vancouver Amtrak Station and the 7th Street Transit Center through a taxi voucher program.

All C-TRAN routes use lift-equipped buses, making them easily accessible to people with disabilities. C-TRAN also provides an Americans with Disabilities Act (ADA)-compliant paratransit service, known as C-VAN. C-TRAN's paratransit service plan is described in the publication 1997 C-TRAN ADA Paratransit Service Plan (January, 1997). C-TRAN attained full compliance with the ADA in January 1997. Table 3-4 provides a summary of paratransit service hours and use between 1994 and 2004.

Table 3-4: C-TRAN; Paratransit Service

C-TRAN PARATRANSIT SERVICE (C-VAN)		
Year	Paratransit Trips	Revenue Hours Per Year
1994	99,036	32,212
1995	115,841	41,803
1996	142,495	48,317
1997	170,816	56,728
1998	186,665	67,769
1999	188,367	65,822
2000	162,130	55,308
2001	175,029	58,695
2002	180,867	61,538
2003	189,143	64,042
2004	178,652	66,254

In 2003, C-TRAN replaced a low ridership route in east county with a general purpose dial-a-ride service called the Connector. Table 3-5 provides a summary of Connector service hours and use. The Connector will continue to operate in Camas.

Table 3-5: C-TRAN Connector Service

C-TRAN CONNECTOR SERVICE (Dial-A-Ride)		
Year	Connector Trips	Revenue Hours Per Year
2003	10,381	2,592
2004	21,436	4,845

Over the next few months, C-TRAN will be implementing a series of other innovative transit services in Battle Ground (replacing route #7), La Center, Ridgefield, and Yacolt. Figure 3-2 shows the areas where these innovative transit services will operate. Details of these services are being developed in conjunction with the communities where the service will operate.

C-TRAN's facilities include transit centers and park and ride lots described in Tables 3-6 and 3-7 below. C-TRAN park and ride facilities provide more than 1,500 parking spaces at five locations. Some are operated under a site use agreement. C-TRAN uses security measures to

make the transit system safer for its users. These security measures include provision of mobile security patrols at the 7th Street Transit Center in downtown Vancouver, Fisher's Landing Transit Center, Vancouver Mall Transit Center, and Salmon Creek Transit Center. The City of Vancouver's Police Department maintains a close working relationship with C-TRAN and responds, as needed, to ensure a safe and secure environment for transit passengers. C-TRAN buses are equipped with emergency alarms and two-way radios. Additionally, C-TRAN's entire fixed route fleet and part of its paratransit fleet are equipped with digital video cameras. Passenger service facilities are located at the 7th Street, Fisher's Landing, and Vancouver Mall Transit Centers. Passenger shelter, bench, and waiting facilities are provided at most of the park and ride lots.

One of C-TRAN's transit centers will move in the near future. C-TRAN's Vancouver Mall Transit Center is over 20 years old and in need of restoration or relocation. Vancouver Mall is a key activity and destination center. However, relocating the transit center to C-TRAN's Administration, Operations and Maintenance (AOM) facility provides a unique opportunity to enhance on-time performance, improve public access to C-TRAN and passenger services, and consolidate operations, which will help to lower C-TRAN's overall operating costs.

C-TRAN has installed and maintains approximately 217 passenger shelters and benches throughout the fixed route system within Clark County. C-TRAN has also begun installing solar-powered shelter flashers and transit stops, which provide passenger activated illumination for safety and to more easily read schedule information, at bus stops along key transit corridors.

All C-TRAN buses are also equipped with bicycle racks that hold two bicycles. C-TRAN provides instruction and assistance to bicyclists who plan to use transit for part of their trip. Bicycle locker facilities are provided at many of C-TRAN's transit centers and park and ride lots.

Table 3-6: C-TRAN Transit Centers (September 2005)

Transit Center	Passenger Services	Security	Public Rest Room	Bicycle Locker/ Rack	Operator Lounge	Admin Offices
Fisher's Landing	Yes	Yes	Yes	Yes	Yes	Yes
7th Street	Yes	Yes	Yes	Yes	Yes	Yes
Vancouver Mall	Yes	Yes	No	Yes	Yes	Yes

Table 3-7: C-TRAN Park & Ride Facilities (September 2005)

Park & Ride	Lot Capacity	Passenger Shelters	Public Rest Rooms	Bicycle Locker/ Rack
Battle Ground	28	Yes	No	Yes
BPA Ross Complex	200+	Yes	No	No
Camas/Washougal	20	No	No	No
Evergreen	271	Yes	No	Yes
Fisher's Landing Transit Center[2]	563	Yes	Yes	Yes
KMART Shopping Center	30[3]	No	No	No
Salmon Creek	495	Yes	No	Yes

Table 3-8 summarizes the bicycle facilities C-TRAN provides at transit centers, park and ride facilities, and the agency's administrative offices.

Table 3-8: CTRAN Bicycle Facilities (September 2005)

Location	Bike Locker[4]	Bike Bank	Bike Rack
7th Street	5	9	N/A
Vancouver Mall	6	6	N/A
Salmon Creek	6	4	1
BPA Ross Complex	N/A	2	N/A
Evergreen	4	8	1
Camas (Burgerville)	2	N/A	N/A
Administrative Offices	2	N/A	1
Annex	2	N/A	1
Fisher's Landing	6	N/A	2

[2] Fisher's Landing Transit Center also has a Park & Ride facility.

[3] Approximate – the use agreement does not specify a number of parking spaces.

[4] Each bike locker has a capacity for two bicycles.

INTER-CITY BUS service from Vancouver to cities throughout the northwest and nation-wide is provided by Greyhound Bus Lines and by Northwestern Trailways.

Clark County has three **PORT DISTRICTS**; the Port of Vancouver, the Port of Camas-Washougal and the Port of Ridgefield.

The **Port of Vancouver** is situated at the terminus of the Columbia River's deep draft channel and forms a natural gateway to the river-barge ports of eastern Oregon/Washington and northern Idaho. The Port operates international cargo docks and currently offers 13 deep draft vessel berths. In 2004, 502 ships carrying over 4.7 million metric tons of cargo used the Port. The Port handles a wide range of cargoes including general breakbulk, project and direct transfer cargoes, containers, automobiles, forest products, meal products, and dry bulk commodities such as bauxite, ores, sands, and grains. The Port has dockside warehousing for general cargo and bulk storage warehouses. The Port of Vancouver supports the implementation of the Columbia River Channel Improvement Project. Deepening of the Columbia River channel from the existing 40-foot navigation channel to 43 feet would facilitate the deep-draft transportation of goods for years into the future and would help to keep the region competitive.

The Port is located within 2 miles of I-5 and is served by Burlington Northern Santa Fe and Union Pacific Railroad, Canadian National and Canadian Pacific Railroads. The Port of Vancouver has 600 acres of developed industrial and marine property. In 2004, the Port's industrial facilities reached 100% occupancy. The Port has over 1,000 additional acres of land, including an additional 1.5 miles of waterfront access, proposed for future development. Work began in 2004 on the National Environmental Policy Aces (NEPA) process for this additional land's development as part of the Port's Economic Development & Conservation Plan. The Port has recently focused attention on rail access improvement with a Simulation and Access Study of a number of conceptual rail alignments. See the MTP's Strategic Plan in Appendix B for additional detail.

The **Port of Ridgefield** is located about 15 miles north of Vancouver USA. The Port's taxing district extends over 57 square miles and the district is bisected by the I-5 corridor. Port-owned assets include an industrial park developed in the 1990s, located near the I-5/Pioneer Street interchange off N.W. Timm Road. This industrial park is currently the location for 11 business providing nearly 800 jobs. The Port also has a 41-acre industrial site on Lake River, 3 miles from I-5.

The **Port of Camas/Washougal**'s taxing district extends over 95 square miles of land with an industrial park, marina, airport, a park and wildlife refuge. The 430-acre industrial park, located south of SR-14 by Index and 27th to 32nd Streets, has a wide range of industries that provide jobs for over 1,000 employees. The Port has approximately 200 acres of prime property available for development. The marina has moorage to accommodate 356 and a boat launch. The Port district also operates Grove Field Airport (described in a later section).

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 35 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. During the 1990's Washington and Oregon began to invest transportation funds to improve local AMTRAK service. In 1993, Amtrak offered a single local daily round-trip connecting Eugene and Seattle with ridership totaling 94,061 trips. By 2003, service had grown to three daily Amtrak Cascades roundtrips operating between Seattle and Portland, with two extending to Eugene. Between 1993 and 2003, ridership increased by 527% from 94,061 annnual riders in 1993 to 589,743 riders in 2003.

The *Coast Starlight*, with service between Seattle and Los Angeles, via Vancouver and Portland, also provides once a day, daily service. The *Empire Builder* also provides one train a day, on a daily basis, between Chicago and Spokane then one part of the train continues to Seattle and the other part continues, via Pasco and Bingen-White Salmon, to Vancouver with service terminating in Portland.

The Pacific Northwest Rail Corridor is one of only five designated high-speed corridors in the nation that pre-qualifies the region for federal high-speed rail funding. In late 1995, the Washington State Department of Transportation (WSDOT) and project partners published *Options for Passenger Rail in the Pacific Northwest Rail Corridor* report. An Environmental Impact Statement on corridor improvements was completed and construction on some rail system improvements began in 1998. Custom-built Talgo trains are now in service on Amtrak's Pacific Northwest Rail Corridor service. Plans are underway to upgrade the Vancouver Amtrak station facility and site as part of the Eugene to Vancouver B.C. passenger rail service improvements. There is also a funded project to improve rail in the vicinity of the Vancouver Yard. The project will add new rail bypass track and provide a grade-separated crossing of the rail lines for vehicles using west 39th Street in Vancouver. The intent of the Vancouver Rail Project is to increase safety, reduce rail congestion, and improve on-time performance of Amtrak's passenger rail service.

Lewis and Clark 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 Chelatchie Prairie Railroad or the Clark County Railroad. The operating and maintenance responsibilities for the line are leased out under long-term operating contracts to two different railroad operators. On the line segment from Battle Ground to the south, the Columbia Basin Railroad Company is responsible for freight operations. At present, this line segment serves the only active freight shippers on the railroad. On the line north of Battle Ground, the Battle Ground, Yacolt, and Chelatchie Prairie Railroad Association (which is a volunteer group) is operating a passenger excursion program originating in Yacolt.

Commuter Rail has been considered as an option for travel within the region. The Commuter Rail Feasibility Study (RTC, 1999) considered commuter rail options and reported on future

capacity of the rail corridors in the region. Commuter rail was also considered as part of the I-5 Partnership study in 2001/2.

For **AIR TRANSPORTATION**, Clark County largely relies on the Portland International Airport (PIA) 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. Passenger airlines currently serving PIA include Air Canada Jazz, Alaska Airlines, America West, American Airlines, Big Sky Airlines, Continental, Delta, Frontier, Hawaiian, Horizon, Jet Blue, Lufthansa, Mexicana, Northwest Airlines, Southwest Airlines, United, and United Express. There are nonstop international flights to Vancouver, Canada; Frankfurt, Germany; Guadalajara, Mexico; and Tokyo, Japan. In addition, air freight carriers that serve Portland currently include Air China Cargo, Airborne, Ameriflight, Bax Global, DHL Worldwide Express, Empire Airlines, Evergreen Airlines, Federal Express, Kitty Hawk Cargo, Korean Air, Menlo Worldwide, United Parcel Service, and Western Air Express. PIA saw rapid growth in passenger numbers and freight in the 1990's and now consistently serves over 1 million passengers per month. In 1998, passenger numbers surpassed 13 million for the first time. In the year ending June 30, 2005, Portland International Airport passengers totaled 13.5 million. In September 2005, the airport served 1,163,365 travelers. 263,189 short tons of cargo was handled by the airport in 2003. The airport is served by Tri-Met's MAX light rail which connects the airport to downtown Portland. C-TRAN buses connect to the Airport's MAX light rail line at the Parkrose Station.

General aviation airfields in Clark County include Pearson Field and Grove Field. **Pearson Field**, located 2 miles south west of Downtown Vancouver off SR-14, is operated by the City of Vancouver and covers 134 acres owned by the U.S. Park Service. The Airpark has one paved runway (3,200 feet by 60 feet) and can accommodate over 170 aircraft. The Airpark is on the Washington State Historical Register. Pearson is designated as a part of the regional transportation system. **Grove Field** is a Basic Utility Stage I Airport operated by the Port of Camas/Washougal. Located in the Fern Prairie area 5 miles north of Camas, Grove Airfield is one of only two publicly owned airfields in the county. Grove Field has a 2,832 foot paved runway illuminated by a low intensity lighting system and also a PAPI system, an above-ground self-fueling station and hangar space for over 60 aircraft. **Evergreen Airfield**, located off Mill Plain in east Vancouver, is to be closed and plans for a mixed use re-development for the site have been submitted to the city of Vancouver.

In addition, there are a number of private airfields located in Clark County that include those described below. Taylor's Green Mountain Airpark is a 23-acre facility, located 9 miles east of downtown Vancouver with one paved runway, six hangars and ten-tie downs. Eight aircraft are based at the Airpark. Goheen Airport, located three miles northwest of Battle Ground, is privately owned. It has one turf runway and provides a base for about 18 planes. 45 acres of Goheen's 60 acre area are zoned for airport use.

The Washington State Department of Transportation's Aeronautics Division and the local pilots' association have proposed that an additional airport should be sited in Clark County because of the vulnerability of existing airfields in the County due to ownership issues and development pressures. Efforts in the 1980's to site such a facility were thwarted when neighborhood residents opposed a proposed airport location in the vicinity of the I-5/Ridgefield Junction.

Federal and state agencies and local jurisdictions have to work together to site such facilities and local jurisdictions must ensure that the land uses surrounding the facility are compatible with aircraft operations and remain that way. Table 3-9, below, provides 1998 compiled by WSDOT which estimates aircraft operations at Clark County airfields.

Table 3-9: Aircraft Operations Estimates

AIRCRAFT OPERATIONS ESTIMATES, 1998 from *Washington State Continuous Airport System Plan* (WSDOT/Aeronautics)								
	Based Aircraft:							
Airport Name All are Private	Single Engine	Multi-Engine	General Aviation Local	General Aviation Itinerant	Air Carrier	Air Taxi	Commuter	Military
Evergreen Field (Vancouver)	240	5	170,000	30,000			0	50
Fly for Fun (Clark County)	9		500	2,500	0	0	0	0
Goheen (Battle Ground)	35		1,350	270	0	0	0	0
Grove Field (Camas)	60	1	5,600	7,000			0	0
Pearson Field (Vancouver)	210	10	23,228	84,201		3,471	0	1,100

Notes:
(1) No regional airlines or major national airlines serve Clark County airports/airfields

Source: FAA 5010 Forms; Airport Management Records; Washington State Aeronautics Division Records

REGIONAL TRANSPORTATION SYSTEM PERFORMANCE

GROWTH IN TRAFFIC VOLUMES

As a result of socio-economic and demographic changes described in Chapter 2 Clark County has seen significant growth in traffic volumes in recent years. The MPO compiles traffic count data from local jurisdictions and publishes the compiled data on RTC's website (see below). Traffic count data is factored to adjust for seasonal, monthly, weekly and daily fluctuations in volumes. Examples of growth in traffic volumes at selected Clark County locations are listed in Table 3-10 below.

Permanent traffic recorders are in place on the I-5 and on the I-205 bridges. RTC compiles the traffic counts provided by Oregon Department of Transportation from these recorders or estimates provided by ODOT. In March 1995 RTC published the *Columbia River Bridge Traffic, 1961 - 1994* report. This data is now updated annually and is available on RTC's web site (http://www.rtc.wa.gov/tc/brdgawd.htm). Figure 3-3 shows the average weekday traffic volumes crossing the Columbia river bridges, 1980 to 2004. In 2004 the estimated average weekday traffic (AWDT) on the I-5 Interstate Bridge was 129,899 and on the I-205 Glenn Jackson Bridge was 145,032. In 2004, the average northbound weekday evening peak hour crossings of the I-5

Interstate Bridge were 5,176 and 7,377 on the I-205 Glenn Jackson Bridge. In the southbound direction, average weekday morning peak hour crossings were 5,412 on the I-5 Interstate Bridge and were 7,545 on the I-205 Glenn Jackson Bridge.

Table 3-10: Traffic Volumes; 1985 to Current Years

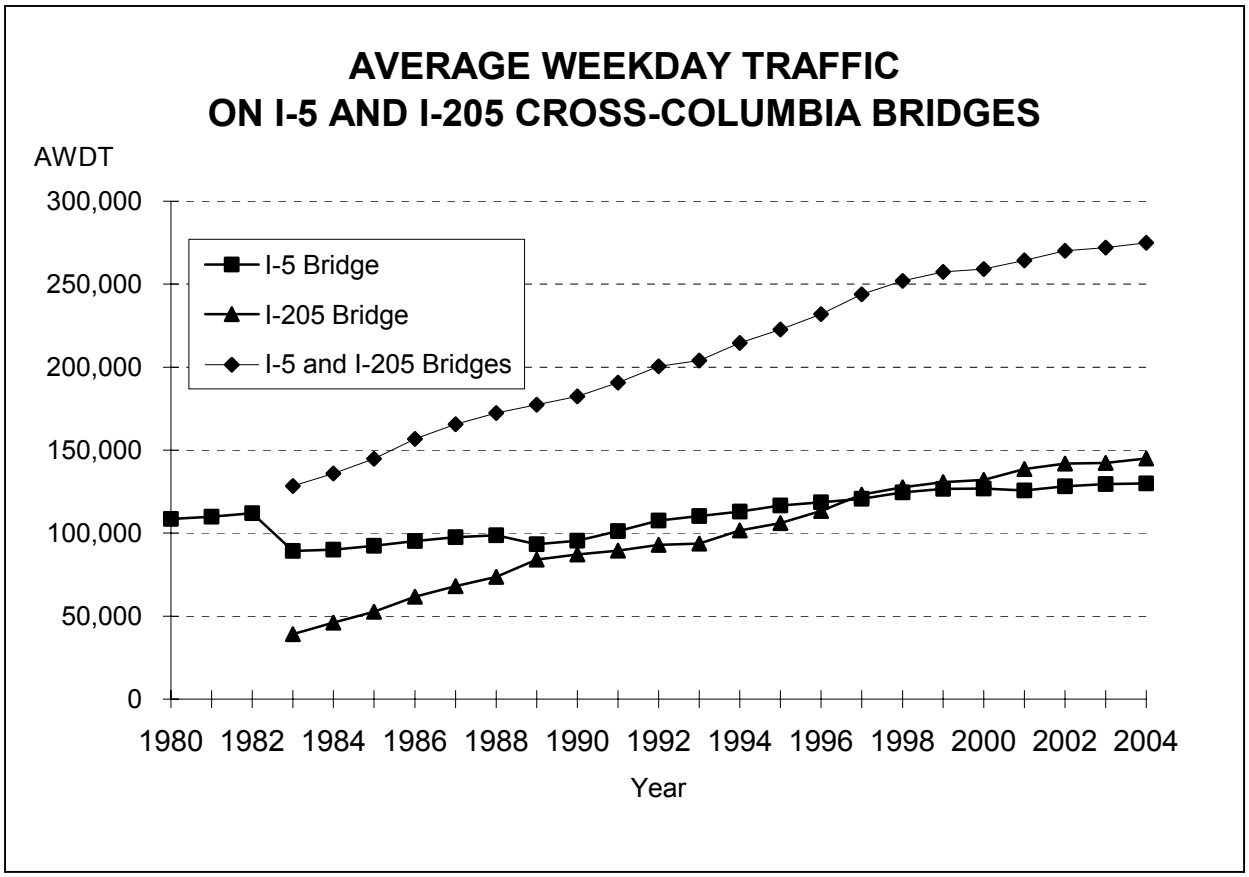
Location	1985 Volumes	Current Volumes	Year of Current Volumes	% Increase	Annual % Increase
I-5 Bridge	92,301	130,000	2004	41%	2.1%
I-5, South of SR-500	54,400	124,879	2001	130%	8.1%
I-5, South of NE 78th St	52,784	98,060	2004	86%	4.5%
I-5, South of Woodland	33,748	63,542	2004	88%	4.6%
I-205 Bridge	52,568	145,032	2004	176%	9.3%
I-205, South of SR-500	40,440	115,025	2004	184%	9.7%
78th St, West of Hwy 99	23,646	29,152	2002	23%	1.4%
164th Ave, South of SE 34th St	7,052	51,414	2002	629%	37.0%
Fourth Plain, West of NE Andresen	16,060	24,719	2003	54%	3.0%
Hwy 99, South of NE 99th St	19,653	21,994	2003	12%	0.7%
Mill Plain, East of NE Andresen	21,021	26,604	2004	27%	1.4%
Mill Plain, East of NE Chkalov	18,220	42,939	2003	136%	7.5%
SR-14, West of SE 164th Ave	22,600	82,794	2004	266%	14.0%
SR-14, West of NW 6th Ave	17,600	31,983	2000	82%	5.4%
SR-500, West of NE Andresen	20,054	51,522	2003	157%	8.7%
SR-500, West of 137th Ave	14,671	29,570	2005	102%	5.1%
SR-503, South of NE 76th St	17,460	34,918	2005	100%	5.0%
SR-503, South of SR-502	7,360	22,506	2005	206%	10.3%

The highest daily traffic ever recorded on the I-5 Interstate Bridge was on Friday July 2, 2004 when 157,301 bridge crossings were made. The highest evening peak hour traffic ever recorded on the I-5 Bridge was on Tuesday May 28, 1996 when 10,838 bridge crossing were made; of these 5,520 were northbound and 5,318 were southbound. For the northbound direction, the highest evening peak hour traffic was recorded on Thursday June 11, 1998 when 5,987 bridge crossings were made. For the southbound direction, the highest morning peak hour traffic was recorded on Wednesday March 31, 2004 when 6,119 bridge crossings were made.

The I-205 Glenn Jackson Bridge's highest daily crossings ever recorded was on Friday July 16, 2004 with 168,491 crossings. The highest evening peak hour traffic recorded on the I-205 Glenn Jackson Bridge was on Friday August 9, 2002 when 13,196 bridge crossings were made. The highest northbound evening peak hour traffic recorded on the Bridge is the 8,426 crossings made

on Wednesday Friday May 24, 1996. For the southbound direction, the highest morning peak hour traffic was recorded on Tuesday October 7, 2003 when 8,247 bridge crossings were made.

Figure 3-3: I-5, I-205 Average Weekday Bridge Crossings



Regional transportation system intersections with the highest traffic volumes, measured in terms of number of vehicles entering intersection are listed in Table 3-11.

Table 3-11: Highest Volume Intersections in Clark County, 2004

CLARK COUNTY HIGHEST VOLUME INTERSECTIONS - 2004				
Rank	**East-West**	**North/South**	**Approx. Volume**	**Count Year**
1	Mill Plain Blvd.	Chkalov Drive	78,000	2003
2	State Route 500	St. John's Road	64,000	2001
3	State Route 500	State Route 503	64,000	2003
4	State Route 500	NE 54th Avenue	59,000	2003
5	Mill Plain Blvd.	136th Avenue	58,000	2003
6	State Route 500	NE 42nd Avenue	58,000	2003
7	SE 34th Street	SE 164th Avenue	58,000	2002
8	Fourth Plain Blvd.	State Route 503	55,000	2003
9	Padden Parkway	State Route 503	54,000	2003
10	Padden Parkway	Andresen Road	49,000	2002
11	NE 78th Street	Highway 99	48,000	2002
12	NE 76th Street	State Route 503	46,000	2003
13	Mill Plain Blvd.	NE 104th/105th Avenue	45,000	2002
14	Padden Parkway	NE 94th Avenue	45,000	2004
15	NE 134th Street	Highway 99	44,000	2001

Notes: Volumes are based on the total number of vehicles entering an intersection on an average weekday, and are approximate due to the variability from year to year.
Freeway ramp intersections with streets were not considered for this listing
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 was 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 2030 travel demand forecast model being the underlying forecast 2030 land uses. The travel model process involves trip generation, trip distribution, mode split and trip assignment to the regional transportation system. EMME/2 software is used to assign trips to the regional transportation system as part of the Clark County region's travel forecast model process.

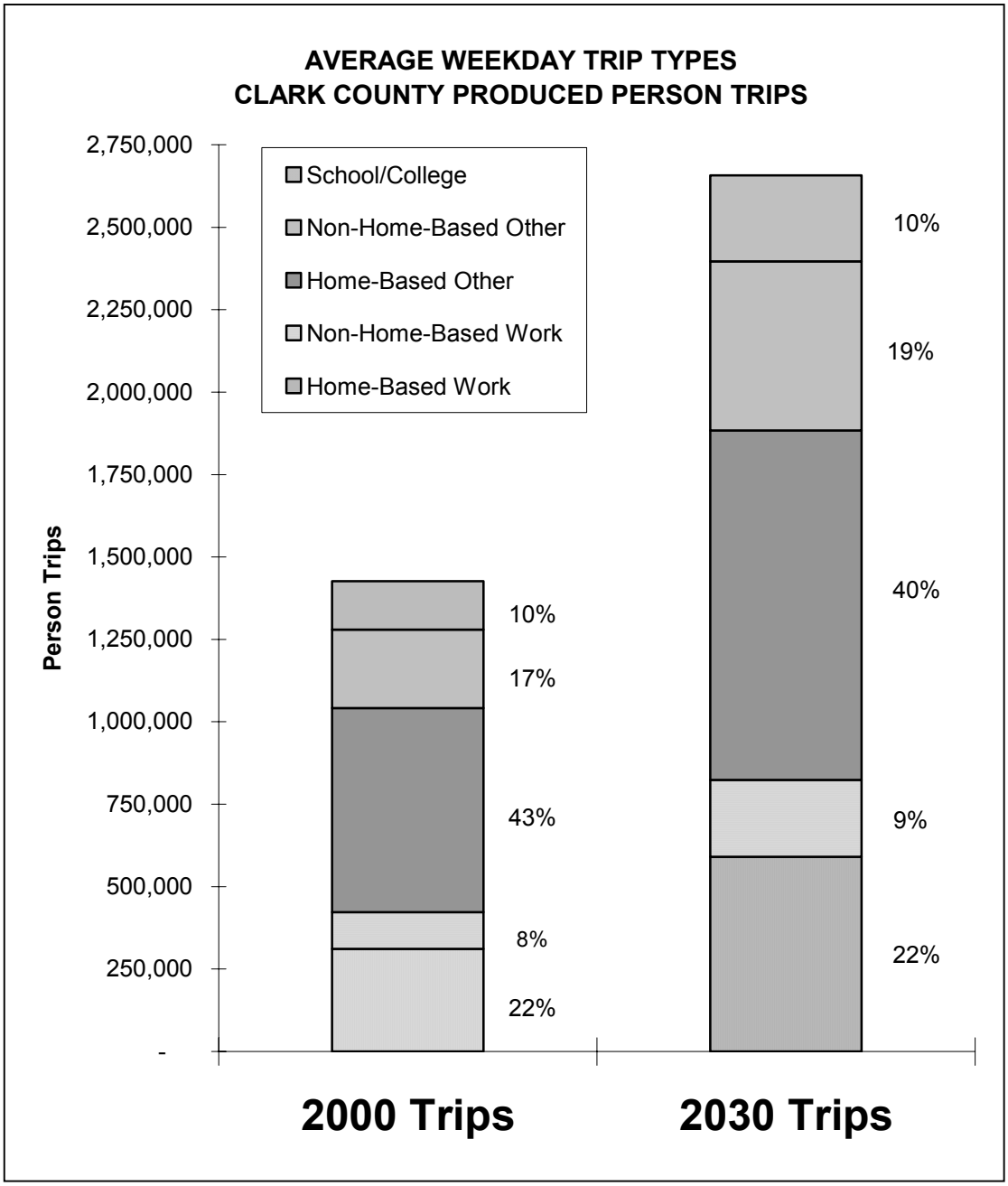
In the modeling process, a base year of 2000 was used and a forecast to the year 2030 was made. As described in Chapter 2, the MTP update must be based on adopted land use plans of local jurisdictions. 2030 land uses are based on the adopted Comprehensive Growth Management Plan for Clark County (Clark County, September 2004) which has a horizon year of 2023, extended seven years to the MTP's 2030 horizon. Prior to adoption of the Comprehensive Growth Management Plans, alternative land use scenarios, and their effect on regional transportation needs, are tested and measured as part of the Growth Management planning process. The 2030 land use allocation to 650 Clark County Transportation Analysis Zones

(TAZ's) was developed by local jurisdictions and RTC's partner agencies using their adopted comprehensive land use plans, as well as current zoning, as the basis for forecasting the future location of population, housing and employment within Clark County. Household and employment data allocated to the TAZs are the input to the regional travel forecast model. After trip generation, trip distribution, mode split and trip assignment onto the assumed regional transportation network, output from the regional travel forecast model is used as a tool to identify specific transportation system needs and future transportation solutions.

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 six groups, they are Home-Based Work, Non-Home-Based Work, Home-Based Other, Non-Home-Based Other, School and College trips. Figure 3-4 show the proportion of trips in each of these categories for average weekday Clark County-produced person trips. In Figure 3-4 College and School trips have been aggregated.

Figure 3-4 shows that in the 2000 base year the largest proportion of trips during a 24-hour period are Home-Based-Other trips (43%). 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 Work trips (22%). Non Home-Based-Other trips make up 17% 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 10% of trips made on a daily basis and Non-Home-Based Work trips, such as delivery trips, made up 8% of daily trips. The proportions for the year 2030 are 40% Home-Based-Other trips, 22% Home-Based-Work trips, 19% Non-Home Based Other trip, 10% school/college trips and 9% Non-Home-Based Work trips. From 2000 to 2030 there is forecast to be a 86% increase in all-day person trips from around 1,427,000 trips per day in 2000 to over 2.6 million in 2030.

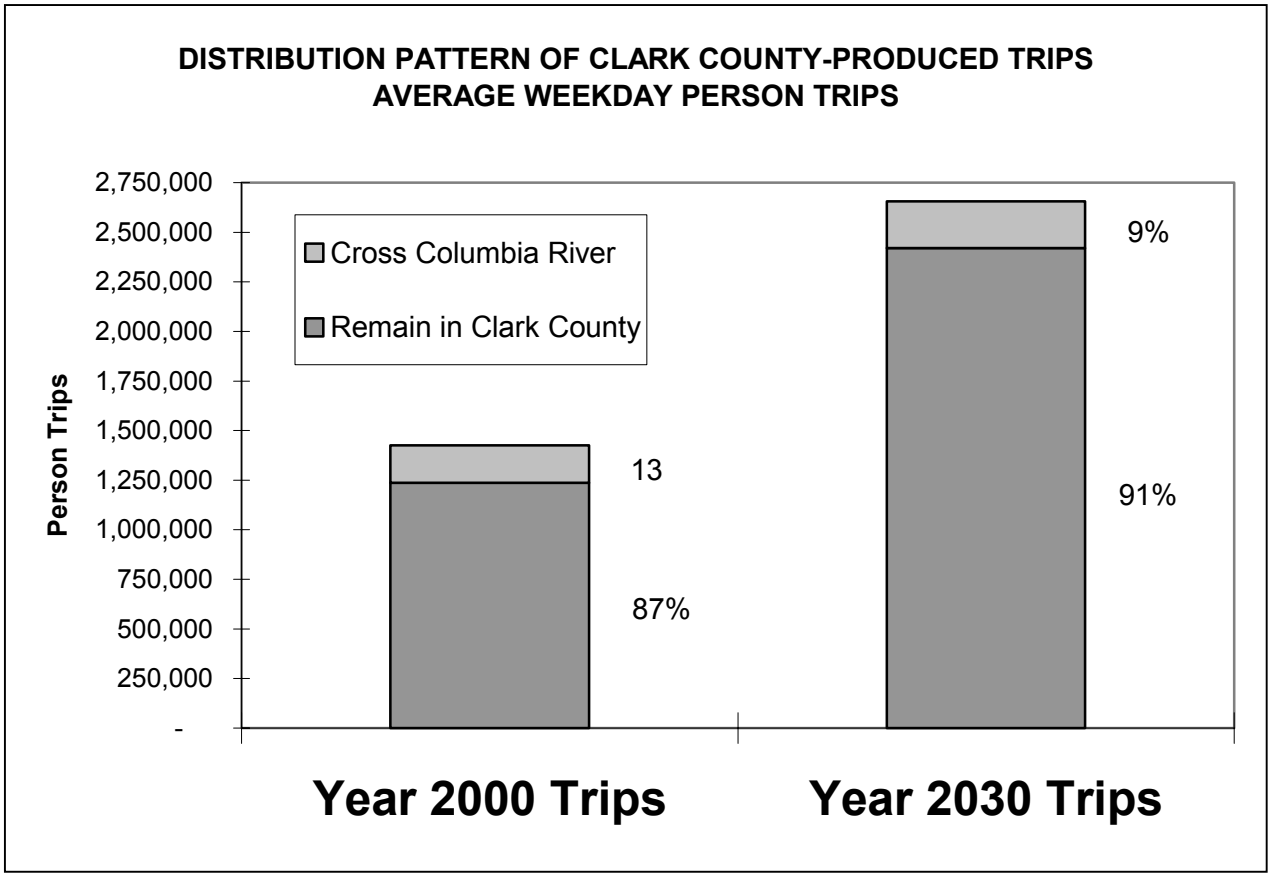
Figure 3-4: Average Weekday Trip Types, Clark County Produced Person Trips



Source: RTC Regional Travel Forecast Model

Trips can also be categorized according to where the trips begin and end. Figure 3-5 shows the proportions of trips that use the Clark County highway system; trips that remain in Clark County (87% of trips in 2000 , 91% in 2030) and trips that cross the Columbia River (13% in 2000, 9% in 2030).

Figure 3-5: Distribution Patterns of Clark County Produced Person Trips, Average Weekday



Source: RTC Regional Travel Forecast Model

Needs analysis was then carried out to determine what impact this forecast growth in travel demand might have on the transportation system. In carrying out analysis of existing and future transportation needs the regional travel forecasting model was used to run three scenarios:

Base-Year 2000 traffic volumes on 2000 highway network

Committed System (Year 2030) Forecast 2030 traffic volumes on "committed" highway network.

The "committed" network has improvement projects for which funds are already committed in the Metropolitan Transportation Improvement Program (MTIP).

MTP (Year 2030) Forecast 2030 traffic volumes on 2030 highway network with *MTP* improvements listed in Appendix A.

MTP improvements are projects for which funds are already programmed and committed in the *2006-2008 Metropolitan Transportation Improvement Program* together with projects for which there is an identified regional need, strong regional commitment, and a reasonable expectation that funds will be available within the twenty-year horizon to construct them.

Tables 3-12, 3-13, 3-14 and 3-15 present system-wide benchmark results from testing the scenarios described above. Each table presents data by functional classification.

Table 3-12: P.M. Peak Hour Speed

AVERAGE PEAK HOUR SPEED ON CLARK COUNTY HIGHWAYS (Results from Regional Travel Forecasting Model, using EMME/2 software)			
	Speed in Miles per Hour		
Facility Type/Region	Base-Year 2000	Committed System (2030 demand on Committed System)	2030 MTP
Interstates (excluding Ramps)	48	31	37
Interstates (including Ramps)	45	31	36
Expressways & Principals	36	31	35
Minor Arterials	31	27	29
Major & Minor Collectors	34	29	32
Other Roads	27	25	28
Total Clark County System	37	30	33

Table 3-13: Peak Hour Vehicle Miles Traveled

VEHICLE MILES TRAVELED ON CLARK COUNTY HIGHWAYS IN P.M. PEAK HOUR (Results from Regional Travel Forecasting Model, using EMME/2 software)			
	Miles of Travel		
Facility Type/Region	Base-Year 2000	Committed System (2030 demand on Committed System)	2030 MTP
Interstates (excluding Ramps)	191,750	315,139	319,166
Interstates (including Ramps)	214,065	337,843	359,798
Expressways & Principals	195,661	309,544	311,631
Minor Arterials	85,773	175,392	163,365
Major & Minor Collectors	106,360	265,174	248,690
Other Roads	12,918	28,761	24,206
Total Clark County System	614,777	1,116,713	1,107,690

Source: Tables 3-12 through 3-15: RTC Regional Travel Forecast Model

Table 3-14: Peak Hour Lane Miles of Congestion

LANE MILES OF CONGESTION IN P.M. PEAK HOUR (Results from Regional Travel Forecasting Model, using EMME/2 software)			
	Lane Miles of Congestion		
Facility Type/Region	**Base-Year 2000**	**Committed System** (2030 demand on Committed System)	**2030 MTP**
Interstates (excluding Ramps)	7.02	88.57	55.65
Interstates (including Ramps)	10.72	100.38	62.79
Expressways & Principals	21.12	151.73	110.56
Minor Arterials	9.45	48.93	59.04
Major & Minor Collectors	3.53	59.42	46.88
Other Roads	0.66	4.33	2.47
Total Clark County System	45.48	364.78	281.74

Table 3-14 (above) presents data on congestion on the Clark County highway system. This measure represents the number of lane miles that operate under congested conditions (at volume to capacity ratio of 0.9 or above; equivalent to level of service E or F) during the full p.m. peak hour. The table's data indicates the relative growth in congestion forecast to occur in the future as travel demand increases.

Table 3-15: Peak Hour Vehicle Hours of Delay

P.M. PEAK HOUR VEHICLE HOURS OF DELAY - CLARK COUNTY HIGHWAYS (Results from Regional Travel Forecasting Model, using EMME/2 software)			
	Hours of Vehicle Delay		
Facility Type/Region	**Base-Year 2000**	**Committed System** (2030 demand on Committed System)	**2030 MTP**
Interstates (excluding Ramps)	484.0	4,047.2	2,609.2
Interstates (including Ramps)	559.4	4,274.4	2,751.6
Expressways & Principals	289.3	1,811.6	858.4
Minor Arterials	109.7	782.6	453.6
Major & Minor Collectors	46.5	1,331.7	644.9
Other Roads	29.5	165.2	68.9
Total Clark County System	1,034.4	8,365.5	4,777.5

Table 3-15 presents vehicle hours of delay. Using the time taken to travel a highway segment at level of service C as a base condition, any road segment operating at LOS D, E or F is measured against the level of service C base condition. The time difference is calculated, aggregated for the entire highway system. The result is Vehicle Hours of Delay. The data is of use in analyzing the relative increase in delay forecast to occur with growth in travel demand in the future.

The preceding system-wide data represents measures of assessing highway system performance, but perhaps more meaningful is an analysis of performance and needs within corridors or on individual system links and at intersecting points. A planning level of analysis, using capacity analysis and level of service standards criteria, was carried out resulting in a first-cut analysis of existing and forecast future deficiencies of the regional transportation system.

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).

For uninterrupted flow conditions (such as freeways and long sections of roadways between stop signs or signalized intersections), the following definitions[5] apply:

- Level of Service A describes free flow conditions, with low volumes and high speeds. Freedom to select desired speeds and to maneuver with the traffic stream is extremely high. The general level of comfort and convenience provided to the motorist, passenger, or pedestrian is excellent.

- Level of Service B is in the range of stable flow but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver with the traffic stream from LOS A.

- Level of Service C is still in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. The selection of speed is now affected by the presence of others, and

[5] ..From *Highway Capacity Manual*, Transportation Research Board, 1985

maneuvering within the traffic stream requires substantial vigilance on the part of the user. The general level of comfort and convenience declines noticeably at this level.

- Level of Service D represents high-density, but stable flow. Speed and freedom to maneuver are severely restricted, and the driver or pedestrian experiences a generally poor level of comfort and convenience. Small increases in traffic flow will generally cause operational problems at this level.

- Level of Service E represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Freedom to maneuver within the traffic stream is extremely difficult, and it is generally accomplished by forcing a vehicle or pedestrian to "give way" to accommodate such maneuvers. Comfort and convenience levels are extremely poor, and driver or pedestrian frustration is generally high. Operations at this level are usually unstable, because small increases in flow or minor perturbations within the traffic stream will cause breakdowns.

- Level of Service F describes forced or breakdown flow. These conditions usually result from queues of vehicles backing up from a restriction downstream. Operations within the queue are characterized by stop-and-go waves, and they are extremely unstable. It marks the point where arrival flow exceeds discharge flow.

These definitions are general and conceptual in nature, and they apply primarily to uninterrupted flow. Levels of service for interrupted flow facilities vary widely in terms of both the user's perception of service quality and the operational variables used to describe them.

Table 3-16 below quantifies Level of Service as defined by the Highway Capacity Manual: Special Report 209, Third Edition (Transportation Research Board, 1998). The agreage travel speeds are shown with their corresponding level of service designation.

Table 3-16: Level of Service Definitions (HCM)

Level of Service Definitions (Highway Capacity Manual)						
LOS Class	**A**	**B**	**C**	**D**	**E**	**F**
Type I Urban Arterials Roadway Segment: Average Travel Speed (mph)	≥ 42	≥ 34	≥ 27	≥ 21	≥ 16	< 16
Type II Urban Arterials Roadway Segment: Average Travel Speed (mph)	≥ 35	≥ 28	≥ 22	≥ 17	≥ 13	< 13
Signalized Intersections Control Delay per Vehicle (seconds)	≤ 10	>10 & ≤ 20	>20 & ≤ 35	>35 & ≤ 55	>55 & ≤ 80	> 80
Unsignalized Intersections Delay per Vehicle (seconds)	≤ 10	>10 & ≤ 15	>15 & ≤ 25	>25 & ≤ 35	>35 & ≤ 50	> 50

LEVEL OF SERVICE STANDARDS ON HIGHWAYS OF STATEWIDE SIGNIFICANCE AND HIGHWAYS OF REGIONAL SIGNIFICANCE

Congestion and Levels of Service continue to be issues of significance for Clark County as the region continues to experience rapid growth. In 1998 the Washington State Legislature passed House Bill 1487, otherwise known as the Level of Service (LOS) Bill. The Bill set new requirements relating to transportation and growth management planning. The 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. The intent of the legislation was to enhance the coordination of planning efforts and plan consistency at the local, regional and state levels. The LOS Bill amended several laws including the Growth Management Act (RCW 36.70A), Priority Programming for Highways (RCW 47.05), Statewide Transportation Planning (RCW 47.06) and Regional Transportation Planning Organizations (RCW 47.80). The combined amendments to these RCWs were provided to enhance the identification of, and coordinate planning for major transportation facilities identified as "transportation facilities and services of statewide significance". The key requirements to the bill are listed below

- Designation of Highways of Statewide Significance (HSS) completed in 1999 and most recently updated in 2004. The State must give higher priority to correcting identified deficiencies on transportation facilities of statewide significance. In the Clark County region the HSS system is I-5, I-205, SR-14 and SR-501 between I-5 and the Port of Vancouver.
- State-owned facilities, including Highways of Statewide Significance, to be included in local plans.
- Level of Service for Highways of Statewide Significance is set by the State in consultation with other jurisdictions.
- Level of Service for regional state highway facilities (not part of the HSS) to be set through a Regional Transportation Planning Organization (RTPO) coordinated process with state, regional and local input.
- Highways of Statewide Significance (HSS) are not part of local concurrency requirements.
- The LOS Bill does not address concurrency requirements for regional state highway facilities.

For the HSS system the Bill requires that the transportation element of the comprehensive plan address the land use impact on the state highway facilities. The State, in consultation, will set the LOS for the HSS system and they 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.

Non-HSS state highways, otherwise known as 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 the 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.

Urban areas and urban facilities are defined by the GMA urban growth boundaries. Rural areas and rural facilities are outside of the GMA urban growth boundaries. Although local agencies may establish their own methodology for analyzing LOS, these LOS standards must be consistent with the Highway Capacity Manual LOS criteria.

Local agencies should incorporate the LOS standards established for both the Highways of Statewide Significance and regional state highway facilities (or non-HSS) into the transportation elements of their Comprehensive Growth Management Plans. Once local Growth Management Plans are updated, RTC must certify that the local transportation elements are consistent with the Metropolitan Transportation Plan, include LOS standards for the HSS and non-HSS segments and describe the impacts of land uses on the state highway system.

CLARK COUNTY/VANCOUVER LOS STANDARDS

Capacity analysis is an estimate of the maximum amount of traffic that can be accommodated by a facility while maintaining prescribed operational qualities. The definition of operational criteria is through levels of service, as described above, or by other operational criteria. 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. In 1999, the City of Vancouver amended the existing Level of Service (LOS) standards contained in the Mobility Management element of the Comprehensive Plan. Levels of service standards to meet Vancouver's concurrency test requirements include: 1) corridor travel times (maximum allowable travel time between two designated points along a corridor); 2) an Average Signalized Intersection Performance Standard (a quantitative standard of the performance of all signalized intersections within an identified transportation corridor or Transportation Management Zone (TMZ); and 3) Mobility Index (the maximum number or percentage of signalized intersections which may have an operating level below the Average Signalized Intersection Performance Standard. The City of Vancouver's concurrency corridors are listed below (Table 3-17):

Table 3-17: City of Vancouver Concurrency Measurement Corridors

Andresen Rd
- Mill Plain to SR-500
- SR-500 to 78th St.

Burton Rd
- Andresen Rd. to 112th Ave

NE 28th St
- 112th Ave to 138th Ave
- 138th Ave to 162nd Ave

Mill Plain Blvd
- I-5 to Andresen Rd.
- Andresen Rd. to I-205
- I-205 to 136th Ave
- 136th Ave to 164th Ave

164th Ave
- SE 1st St to SR-14

162nd Ave.
- SE 1st St. to Fourth Plain Blvd.

192nd Ave.
- SR-14 to 18th St.

Fourth Plain Blvd.
- Port of Vancouver to I-5
- I-5 to Stapleton
- Stapleton to I-205

St John's Blvd.
- Fourth Plain Blvd to 78th St.

NE 18th St.
- 112th Ave to 138th Ave
- 138th Ave to 162nd Ave

NE 112th Ave
- Mill Plain Blvd to 28th St
- 28th St to 51st St

NE 136th Ave
- Mill Plain Blvd to 28th St.

NE 138th Ave
- NE 28th St. to Andresen

Further information on the City's Concurrency program can be found at the web site address, http://www.ci.vancouver.wa.us.

On October 10, 2000, the Board of Clark County Commissioners adopted a new Transportation Concurrency Ordinance and related levels of service. For details of the October 2000 Clark County Concurrency ordinance and travel speed standards refer to County website at http://www.clark.wa.gov/Public-Works/transportation/concurrency.html and Clark County Code Section 40.350.020. The County's Level of Service standards rely on meeting minimum travel speeds in each of the transportation corridors designated by the County as outlined in Clark County Code Section 40.350.020. The corridor travel speeds are periodically reviewed and updated with the latest update in September 2004. Minimum corridor travel speed range between 13 miles per hour and 27 miles per hour, depending on the corridor. Facilities also have to meet thresholds for travel delay at signalized intersections within the designated corridors. Individual movements at each signalized intersection of regional significance shall not exceed an average of two cycle lengths or two hundred and forty seconds of delay, whichever is less. Outside of designated transportation corridors, all signalized intersections of regional significance shall achieve LOS D or better except for the intersections of SR-500/Falk Road and SR-500/NE 54th Avenue which shall achieve LOS E or better. All unsignalized intersections of regional significance in unincorporated County shall achieve LOS E standards or better (if

warrants are not met) and LOS D or better if warrants are met. There are some exemptions that can apply to concurrency requirements.

Table 3-18: Clark County Concurrency Measurement Corridors

Clark County Concurrency Measurement Corridors: Corridors and Corridor Limits Description

North-South Roadways

Lakeshore Avenue
Bliss Rd to NE 78th St

Hazel Dell Avenue
Highway 99 to NE 63rd St.

Highway 99 & NE 20th Avenue
North: NE 20th Avenue (), NE 179th St. to S of NE 134th St.
Central: N of NE 134th St. to NE 99th St.
South: NE 99th St. to NE 63rd St.

St. Johns Road
NE 119th St. to NE 68th St.

NE 72nd Avenue
SR-502 to NE 119th St.

Andresen Road
NE 119th St. to NE 58th St.

Gher/Covington Road
Padden to SR-500

SR-503
North: SR-502 to NE 119th St.
South: NE 119th St. to Fourth Plain

Ward Road
Davis Rd. to SR-500

NE 162nd Avenue
Ward Rd. to NE 39th St.

NE 182nd Avenue
Risto Rd. to Davis Rd.

East-West Roadways

SR-502
SR-503 to NE 179th St.

179th Street
West: NW 41st Ave. to I-5
West Central: I-5 to NE 72nd Ave.

139th St. & Salmon Creek Ave.
139th Street (West), Seward Rd. to I-5
Salmon Creek Ave. (W. Central), I-5 to NE 50th Ave.

119th Street
West: Lakeshore to Hazel Dell
West Central: Hwy 99 to NE 72nd Ave.
East Central: NE 72nd Ave. to SR-503

99th Street
West: Lakeshore to I-5
West Central: I-5 to St. John's Rd.
East: SR-503 to NE 172nd Ave.

Padden Parkway (East Central)
I-205 to SR-503

78th/76th Street
West: Lakeshore to I-5
West Central: I-5 to Andresen
East Central: Andresen to SR-503
East: SR-503 to Ward Rd.

Fourth Plain Boulevard
East Central: I-205 to SR-503
East: SR-503 to 162nd Ave.

63rd Street
West Central: Hazel Dell to Andresen
East Central: Andresen to NE 107th Ave.

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. This matrix has been updated and is presented in Table 3-19. It can be used as a guide to assess where transit service would be feasible in areas within C-TRAN's service boundary.

Table 3-19: C-TRAN Level of Service Indicators (Summer 2005)

C-TRAN LOS INDICATORS (Summer 2005)								
	PERFORMANCE INDICATORS						PLANNING INDICATORS	
Service Category	Passengers/ Revenue Hour	Load Factor	Peak/ Non-peak Headways	Bus Stop Spacing	Accessibility (within service boundary)	Span of Service	Density	Supporting Factors
Premium Commuter	TBD	1.0	10-15/NA	NA (or P&R sites)	Within 5 miles of 80% of pop+emp	M-F, peak	High density employment district as destination	Full cost recovery, parking mgmt, sufficient P&R spaces/transit connections
Commuter Shuttle	TBD	1.0	15/TBD	NA (or P&R sites)	Within 5 miles of 80% of pop+emp	M-F, mainly peak	High density employment district as destination	Parking mgmt, sufficient P&R spaces/transit connections
Urban Corridor	TBD	1.5	15/30	1/8 mile	Within 1/4 mile of 75% of pop+emp	M-F, 15 hours	8 or more residential units per acre, employment / comercial uses	Land use/zoning compatibility, pedestrian/ bike facilities, trip generators/destinations along corridor
Urban/ Suburban Residential	TBD	TBD	30/60	1/4 mile	Within 1/4 mile of 75% of pop+emp	M-F, 15 hours	4-8 residential units per acre, mix of uses along routes	Land use/zoning compatibility, pedestrian/ bike facilities, connection to major activity centers
Rural	TBD	TBD	60/120	TBD	Within 5 miles of 75% of pop+emp	M-F, TBD	2-4 residential units per acre	Pedestrian/bike facilities, citizen requests for service
Subscription	TBD	TBD	As needed	Desig-nated sites	NA	M-F, peak	NA	Specialized employer needs
Paratransit	TBD	TBD	NA	NA	Within 3/4 mile of fixed routes	M-F, 15 hours	NA	Passengers who cannot access fixed route, caregivers/providers who learn how to work effectively with C-TRAN

During 2006, service standards will be presented to C-TRAN's Board of Directors for adoption. The new standards will be incorporated in the next MTP update.

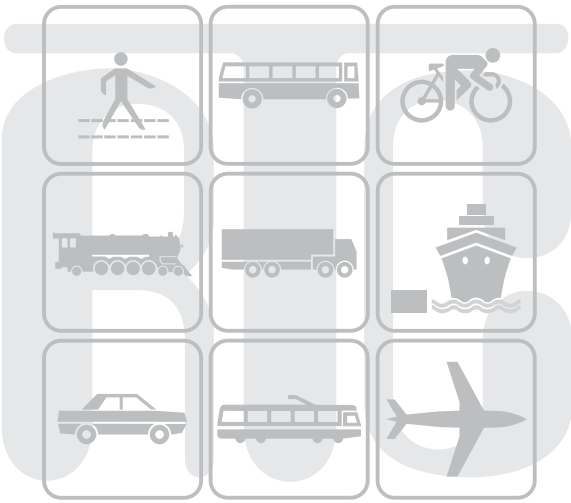
HIGHWAY SYSTEM CAPACITY ANALYSIS

EMME/2 software is used to analyze highway capacity needs for the Clark County region. Appendix A lists projects identified in the *MTP* as needed to meet future forecast capacity deficiencies determined by assigning forecast 2030 trips to an assumed transportation network.

The list contained in Appendix A notes projects which are incorporated into the 2030 regional travel forecasting model and are consequently considered as part of the air quality conformity analysis.

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), and 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 and transit use. Other alternatives have to be considered before capacity expansion. Such strategies are described in more detail in Chapter 5, System Improvement and Strategy Plan. 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.



CHAPTER 4

FINANCIAL PLAN

OVERVIEW

Federal rules require that the MTP be "fiscally constrained" meaning that there must be a reasonable expectation that revenues will be available to provide for the estimated costs of implementing the 25-year list of projects contained in the MTP and to support the operations and maintenance of the multimodal transportation system. The MTP Finance Plan focuses on the Designated Regional Transportation System.

Potential transportation projects proposed in this Plan are intended to meet the MTP policy objective of making the most efficient use of and enhancing the existing transportation system. The potential highway, transit and non-motorized recommendations are designed to meet transportation planning goals addressed in MTP Chapter 1.

The availability of federal, state and local moneys will have a significant impact on the ability to fund proposed projects. Demands on the transportation system have grown significantly over the past 20-years.

This chapter describes revenue sources and discusses changes to revenue sources as a result of federal and state legislation. The projection of funding ability is based on historic funding levels. The ability of the projected funding to meet MTP costs is determined.

Transportation has traditionally been funded by "user fees". Today, the major tax sources to fund transportation are the gas tax and license fees, as well as transit fare box revenues. The Motor Vehicle Excise Tax (MVET) was repealed after passage of Initiative-695 in 1999. Gas tax is imposed at the Federal level ($0.184 per gallon) which costs the average motorist about $96 per year and at the State level ($0.31 per gallon) which costs the average motorist $162 per year. The gas tax revenue is devoted primarily to highway purposes. As of July 1, 2005, Washington State had the 8th highest gas tax in the nation.

FINANCE ISSUES SINCE LAST MTP

The Finance Plan component of the MTP last received a comprehensive update in the 2002 MTP update. Since the 2002 MTP update, the Clark County region has secured over $25 million in federal funds specifically dedicated to this region, over $211 million in state nickel package funding, and over $48 million in state Transportation Improvement Board (TIB) funding. These are funds that are used primarily for highway capacity projects. The region has also received over $18 million in federal transit funding since 2002. In 2005, the state legislature enacted an increase in gas tax and identified projects to be funded with this additional revenue. The 2005 Funding Package provides $244 million for projects in Clark County to make highways safer and keep traffic moving.

Since 2002, several significant regional transportation system capital improvement projects have been completed or are nearing completion in the Clark County region. These include a new interchange at SR-500/112th Avenue, SR-502 widening from Battle Ground west city limits to SR-503, widening of I-5 from 99th Street to I-205 which is now underway, the 192nd Avenue

corridor from SR-14 to SE 1st Street, completion of the Padden Parkway west leg, the 162nd Avenue corridor from NE 39th Street to Ward Road and realignment of Highway 99/NE 20th Avenue at 134th Street. In the past 3 years alone, 2003-2005, over $227 million of regional highway system projects have been constructed in Clark County[1]. If the trend was to continue, the region could anticipate over $1.89 billion in funding for regional highway capital projects over the next 25 years.

In 1999 the Motor Vehicle Excise Tax (MVET) was repealed resulting in reduction of funding for transit service. C-TRAN was faced with a 40% revenue reduction (about $12 million annually). In September 2005, voters in Clark County approved an increase in the sales tax rate of two-tenths of a percent which should raise about $9.4 million annually for C-TRAN service.

In August 2005, the City of Vancouver voted to increase sales tax by two-tenths of a percent which will raise about $4.2 million a year for the City of Vancouver's transportation needs.

ASSUMPTIONS

- The Finance Plan addresses a twenty-five year period from 2005 to 2030.
- Revenue data on which to base the Finance Plan come from WSDOT's Economics Branch and includes data from the past decade.
- MTP project cost estimates are provided by WSDOT, local jurisdictions and agencies.
- The financial information provided for C-TRAN assumes no additional sales tax beyond the 0.5 percent approved by voters in 2005.

CURRENT REVENUE SOURCES

Revenues for transportation system development are available from federal, state, local and private sources. Funding sources that have been historically available are extrapolated into the future to provide an estimate of the resources reasonably expected to be available. It is assumed that funds that have traditionally been available for transportation will continue to be available. For example, it is assumed that federal Demonstration funds will continue to be available.

FEDERAL FUNDING

The federal funding picture changed significantly with the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, and successor Acts, the Transportation Equity Act for the 21st Century (TEA-21) passed in 1998, and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) passed in August 2005. Federal funding programs now allow much greater flexibility in the way money may be used. The federal funding programs now have a multimodal emphasis especially the Surface Transportation

[1] In the 3 years, 2000 to 2002, $178 million of regional highway system projects were constructed in Clark County.

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. ISTEA was considered landmark legislation because of this and because it enhanced the role of the Metropolitan Planning Organization in the programming, planning, and prioritization of STP funds. The Act also established Transportation Management Areas (TMAs) and made funding available for transportation projects to help regions meet air quality standards. In states, such as Washington State, where the amount of public lands and Indian lands exceed 5% of the total State area, the federal share for projects will be increased above those outlined in SAFETEA-LU.

SAFETEA-LU is funded through projected revenues from the Highway Trust Fund and General Fund as well as ethanol tax reforms. SAFETEA-LU includes $286.5 billion in guaranteed spending for all programs over the six years of the Act, 2004 through 2009. This is a 38% increase over TEA-21's $218 billion for transportation programs. Approximately 75% is for highway and safety programs, 18.5% for transit and 6% for additional safety and other program. By 2009 each state should receive at least 92 cents annually for each $1 of federal transportation taxes and fees contributed. Washington State should average about 92.3 cents return on the dollar. Washington State is estimated to receive about $3.5 billion from 2004 through 2009. SAFETEA-LU allocates $24 billion, amounting to 8.5% of the total bill, to about 6,300 earmarked projects identified by Congress. Within Clark County these federal earmarked projects include:

- I-5 Columbia River Crossing Preliminary Engineering and EIS: $14.2 ($8 million Washington and $6.2 million Oregon)
- I-5/Delta Park to Lombard: $16.2 million ($4 million Washington and $12.2 Oregon)
- I-5/Salmon Creek Area Improvement Project: $10.772 million
- 18th Street between 87th Avenue and 192nd Avenue: $3.2 million
- SR-14 Corridor Camas/Washougal: $1.5 million
- I-5/SR-501 Interchange Replacement in Ridgefield: $9 million
- Confluence Project: $4.5 million
- Mill Plain Boulevard Improvement: $1.25 million
- Vancouver Advanced Traffic Management System: $500,000

A brief description of the existing funding programs available through the federal Act follows.

Interstate Maintenance (IM) Program

The Interstate Maintenance (IM) program provides funding for resurfacing, restoring, rehabilitating and reconstructing (4R) most routes on the Interstate System. Construction of additional Single Occupancy Vehicle (SOV) lanes are ineligible for IM program funds. SAFETEA-LU IM program funding, years 2005 through 2009, is set at $25.2 billion, nationwide.

National Highway System (NHS)

The NHS program provides funding for improvements to rural and urban roads that are part of the National High System. These roads include the interstate system; other routes identified for their strategic defense characteristics; routes providing access to major ports, airports, public transportation and intermodal transportation facilities; and principal arterials that provide regional service. Funding in this category may be used for a wide variety of projects. In addition to roadway construction, operational and maintenance improvements, eligible projects include: start-up for traffic management and control, infrastructure-based intelligent transportation system capital improvements, fringe and corridor parking, carpool and vanpool projects, bicycle and pedestrian projects, and wetlands and natural habitat mitigation. In certain circumstances, transit projects in the corridor are also allowed if they benefit the NHS facility. The funding level for the NHS program is $30.542 billion nationwide under SAFETEA-LU, 2005 through 2009.

Surface Transportation Program (STP)

The Surface Transportation Program is a block grant type funding program which provides flexible funding that may be used by States and localities for projects on any Federal-aid highway[2] including the NHS, bridge projects on any public road, transit capital projects, and intracity and intercity bus terminals and facilities. A portion of the funds reserved for rural areas may be spent on rural minor collectors. In addition to eligibility for operational and capacity improvements to roadways, it allows for the programming of transit capital projects, intracity and intercity bus terminals, carpool projects, fringe and corridor parking, capital and operating costs for traffic monitoring, management or control, transportation enhancements, transportation planning, and transportation control measures for air quality. If an area, such as the Vancouver region, has been designated a Transportation Management Area (TMA), road capacity improvements should be consistent with the region's Congestion Management Plan.

Of the money received by the state, 10% must be set aside for safety projects such as hazard elimination and 10% for transportation enhancements such as pedestrian and bicycle facilities. Under SAFETEA-LU, total funding for the STP program is $32.55 billion nationwide for years 2005 through 2009. In Washington State federal STP program funds require a 13.5% local match though interstate projects are shared approximately 90.66% federal funds and 9.34% state match.

The following outlines the STP subprograms:

Safety: 10% of STP funds are set aside for safety projects available for cities and counties to improve safety. There are three programs under safety. (1) Railway/Highway Crossings funds are available to reduce fatalities, injuries, and damages through improved railway crossings. (2) Hazard Elimination funds are available to improve specific locations which constitute a danger

[2] Roads with a federal functional classification above local in urban areas and above rural minor collector in rural areas.

to vehicles or pedestrians as shown by frequency of accidents. (3) High Accident Potential funds are to reduce a potentially unsafe situation. The costs are shared approximately 90% federal, and 10% local match. The State selects and prioritizes projects for funding. For 2006 and thereafter the Safety setaside is eliminated as the new Highway Safety Improvement Program takes over the funding of the safety programs.

Enhancements: 10% of STP funds are set aside for transportation enhancement projects (bikeways, walkways, highway beautification, scenic or historic transportation projects). The MPO (RTC) prioritizes projects and the State selects projects. Allocation of funds is determined at the State level.

Regional Allocation: STP-Urban and STP-Rural: Available to cities, counties, and other public agencies on a county basis. To be eligible, road projects must be on a federal functionally-classified route of rural major collector or above, except for planning studies and enhancement projects. The MPO (RTC) selects projects for funding in cooperation with local jurisdictions and agencies. The STP-Urban program is a formula allocation to the Clark County Transportation Management Area (TMA) based on the population of the Vancouver Urban Area. The STP-Rural program is a formula allocation for projects outside the Urban Areas.

STP-State: Formula allocation to the Washington State Department of Transportation, for use on State highway projects. The State selects projects.

STP-Statewide Competitive: This is a portion of STP funds that can be used in any area of the State. The State selects and prioritizes projects for funding.

Highway Safety Improvement Program (HSIP)

The Highway Safety Improvement Program is established as a new core program, separately funded for the first time. It allows states to target funds to their most critical safety needs to achieve a significant reduction in traffic fatalities and serious injuries on all public roads. States are required to develop and implement a strategic highway safety plan and submit annual reports describing at least 5% of the State's most hazardous locations, progress in implementing projects and their effectiveness in reducing fatalities and injuries. The program is set to begin in FY 2006. From 2006 through 2009, funding for this program is $5.1 billion nationwide with $880 million set aside for the Railway-Highway Crossing program. The costs are shared approximately 90% Federal and 10% local match, except that the Federal share is 100% for certain safety improvements.

Congestion Mitigation and Air Quality Improvement Program (CMAQ)

The Congestion Mitigation and Air Quality Improvement Program (CMAQ) provides funding for projects and programs in air quality non-attainment and maintenance areas for ozone, carbon monoxide (CO), and particulate matter (PM-10, PM-2.5) which reduce transportation related emissions. SAFETEA-LU adds new requirements that States and MPOs will give priority to projects and programs to diesel retrofits and other cost-effective emission reduction activities, and cost-effective congestion mitigation activities that provide air quality benefits. Money in

this fund is apportioned by population and weighted by the severity of pollution. Funds in this category cannot be used for new highway capacity. However, construction of high occupancy vehicle lanes are allowed with the understanding that capacity may be used by single occupancy vehicles during the non-rush hour period. Projects or programs that improve transportation systems management and operations that mitigate congestion and improve air quality can be funded under this program. The Clean Air Act Amendments of 1990 require that highest priority for funding be given to the implementation of the transportation elements of applicable State Implementation Plans (SIPs) and Transportation Control Measures identified in applicable SIPs. From 2005 through 2009, funding for this program is $8.608 billion nationwide. RTC is one of five MPO's in Washington State eligible for CM/AQ funding.

Highway Bridge Program (BR)

The Highway Bridge Program provides funding to enable States to improve the condition of their highway bridges through replacement, rehabilitation, and systematic preventive maintenance. The nationwide program provides $21.607 billion in funding from 2005 through 2009. The costs are shared approximately 80% federal and 20% local match.

High Priority (Demonstration) Projects

The High Priority Program provides designated funding for specific projects identified by Congress and listed in SAFETEA-LU. 5,091 projects, costing a total of $14.83 billion, are identified in SAFETEA-LU. These funds generally require a 20% local match.

Transportation and Community and System Preservation Pilot (TCSP)

The TCSP Program is intended for eligible projects to integrate transportation, community, and system preservation plans and practices that improve the efficiency of the transportation system of the United States, reduce the impacts of transportation on the environment, reduce the need for costly future investments in public infrastructure, provide efficient access to jobs, services, and centers of trade and examine community development patterns and identify strategies to encourage private sector development. A total of $270 million is authorized for this program for FYs 2005-2009. Clark County received TCSP funds to investigate the impacts of concurrency and Growth Management on implementation of the comprehensive plan. Projects are selected at the federal level with 80% federal and 20% local share.

Job Access and Reverse Commute (JARC)

The federal Job Access and Reverse Commute grant program assists states and localities in developing new or expanded transportation services that connect welfare recipients and other low income persons to jobs and other employment related services. Job Access projects are targeted at developing new or expanded transportation services such as shuttles, vanpools, new bus routes, connector services to mass transit, and guaranteed ride home programs for welfare recipients and low income persons. Reverse Commute projects provide transportation services to suburban employment centers from urban, rural and other suburban locations for all populations. The Job Access and Reverse Commute (JARC) program will be administered as a formula

program beginning in FY 2006. In 2002, C-TRAN obtained $718,500 in JARC funds to implement the Connector service to enhance employment access to the industrial and commercial area of East Vancouver/Camas. The service debuted in 2003. Federal JARC funds require a 50% match; other federal funds can be used as part of the local match.

National Corridor Infrastructure Improvement Program

This is a discretionary program that provides funding for construction of highway projects in corridors of national significance to promote economic growth and international or interregional trade. The program replaces the TEA-21 National Corridor Planning and Development program. The nationwide program provides $1.9 billion in funding from 2005 through 2009. Projects are selected at the Federal level and require a 20% local share.

National Scenic Byways Program

The program recognizes roads having outstanding scenic, historic, cultural, natural, recreational, and archaeological qualities and provide for designation of these roads as National Scenic byways, All-American Roads or America's Byways. Projects are prioritized at the State level and selected at the Federal level. The nationwide program provides $175 million in funding from 2005 through 2009. The funds require a 20% local match.

Community Development Block Grant (CDBG)

Community Development Block Grant (CDBG) funds are administered by the Department of Housing and Urban Development (HUD). Grants can be used for public facilities, economic development, housing and comprehensive projects which benefit low and moderate income households. Transportation projects that use CDBG funds are usually sidewalk projects and small capital improvements. Projects are selected by the County Commissioners from recommendations by the Urban County Policy Board composed of local Mayors and one county commissioner.

Safe Routes to School Program

The Safe Routes to Schools Program is to enable and encourage children, including those with disabilities, to walk and bicycle to school; to make walking and bicycling to school safe and more appealing; and to facilitate the planning, development, and implementation of projects that will improve safety, and reduce traffic, fuel consumption, and air pollution in the vicinity of schools. The nationwide program provides $612 million in funding from 2005 through 2009. The Federal share is 100%.

Recreational Trails Program

The Recreational Trails program provides funds to the States to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. The nationwide program provides $370 million in funding from 2005 through 2009.

Federal Lands Highways

The Federal Lands Highways Program provides for transportation planning, research, engineering, and construction of highways, roads, and parkways and transit facilities that provide access to or within public lands, national parks, and Indian reservations. The nationwide program provides $4.465 billion in funding from 2005 through 2009. The federal share is 100%. Projects are selected at the federal level.

Projects of National and Regional Significance (PNRS)

The Projects of National and Regional Significance program provides funding for high cost projects of national or regional importance. The nationwide program provides $1.78 billion in funding from 2005 through 2009. Projects are selected at the federal level. The funding share is 80% Federal and 20% local match.

STATE FUNDING

The State gas tax is the major state revenue source for highway maintenance and arterial construction funding. In 2003 the state legislature passed a nickel gas tax increase and in 2005 a 9.5 cent gas tax increase to fund the Transportation Partnership Account (TPA) that will fund the following projects in the Clark County region:

- I-5, Salmon Creek to NE 134th St, $39.1 million (nickel)
- I-5, Reconstruct Interchange at NE 134th St., $55 million (nickel)
- I-5, NE 219th St/SR-502 Interchange, $34.7 million (nickel)
- I-205, Mill Plain/NE 112th Connector, $12 million (nickel)
- SR-500, Gher Road/NE 112th Avenue Interchange, $26.1 million (nickel)
- SR-502, NE 10th to Battle Ground, Widen, $15 million (nickel)
- Vancouver Rail Yard and 39th Street Overcrossing, $53.773 million (nickel)
  (state funds total $57 million for this project)
- I-5, Columbia River Crossing EIS, $50 million (Transportation Partnership Account, TPA)
- I-5, SR-501/Pioneer Ridgefield Interchange, $10 million (TPA)
  (additional funding needed to complete project)
- SR-14, Camas - Washougal Widening, $40 million (TPA)
- SR-14, Lieser Rd Interchange Traffic Signals, $1 million (TPA)
- I-205, Mill Plain to NE 28th St - 18th St Interchange, $58 million (TPA)
- I-205, Mill Plain Southbound Off-ramp, $0.440 million (TPA)
- SR-500, St John's Interchange, $26.3 million TPA)
- SR-500, I-205 Interchange Improvement, $1 million (TPA)
- SR-502, NE 10th to Battle Ground, Widen, $50 million (TPA)
- SR-503/SR-500/Fourth Plain Intersection, $0.95 million (TPA)
- SR-503, Lewisville Park Climbing Lanes, $5.7 million (TPA)
- SR-503, Gabriel Road Intersection Improvement, $0.75 million (TPA)

TOTAL FUNDING TO CLARK COUNTY PROJECTS $483.04 million

Washington State Department of Transportation (WSDOT)

The Washington State Department of Transportation administers state and federal funded state highway projects. State transportation revenues are divided into separate programs. The budget for these programs is determined by the state legislature. WSDOT then prioritizes projects and determines which projects can be constructed within the budget of each program.

Transportation Improvement Board (TIB) Programs

The Washington State Legislature created the Transportation Improvement Board (TIB) to foster state investment in quality local transportation projects. The TIB distributes grant funding, which comes from the revenue generated by three cents of the statewide gas tax, to cities and counties for funding transportation projects. The TIB identifies and funds the highest-ranking transportation projects based on criteria established by the Board for each program.

TIB URBAN FUNDING PROGRAMS

The Transportation Improvement Board provides funding to its urban customers through three state-funded grant programs. Eligible projects are located within the federally designated urban areas. Urban projects require financial participation by the local agency. Minimum local match requirements range from ten to twenty percent depending on the assessed value of the local agency. Local match is typically a mixture of private and public funds. Projects are selected annually using a rating system based on criteria developed by the Board. Applications are rated by TIB staff and reviewed in the field. The highest rated projects within the funding range are presented to the Board for selection. TIB awards approximately $70 million to new projects each year. Once selected, TIB staff provides grant oversight, participates in Value Engineering (VE) studies, and acts as facilitators to bring projects to completion.

Urban Arterial Program (UAP): for roadway projects that improve safety and mobility.

Urban Corridor Program (UCP): for roadway projects with multiple funding partners that expand capacity.

Sidewalk Program (SP): for sidewalk projects that improve safety and connectivity.

Road Transfer Program (RTP): provides state funding to offset extraordinary costs associated with the transfer of state highways to cities

Route Jurisdiction Transfer (RJT): The TIB reviews petitions from cities, counties or WSDOT for additions or deletions from the state highway system. Recommendations are submitted to the legislature that makes the final decisions on route jurisdiction transfers.

De-TEA Program: removes federal money from the project, and provides 100% state TIB funding in its place.

TIB SMALL CITY FUNDING PROGRAMS

The Transportation Improvement Board offers a number of different funding programs to the state's small cities. Cities and towns with a population under 5,000 are eligible for funding from programs that reconstruct or maintain the transportation infrastructure. Funds from the program

are distributed regionally, with projects competing only in their own region. TIB's programs for small cities have been developed to require little or no local match. Match requirements are determined by population. While the majority of TIB's small city funding is awarded annually through a competitive process, the Federal Match and NewStreets pavement preservation programs are open continuously to take advantage of unique financial opportunities. Programs that are on an annual cycle use project selection rating systems based on criteria developed by the Board. Applications are rated by TIB staff and reviewed in the field. The highest rated projects within the available funding are presented to the Board for selection. TIB awards approximately $10 million to new small city projects each year. TIB staff provides grant oversight, assists with consultant selection, and acts as facilitators to bring projects to completion.

Small City Arterial Program (SCAP): Provides funding for projects that improve safety and roadway conditions.

Small City Pavement Preservation Program (SCPPP): Provides funding for rehabilitation and maintenance of the small city roadway system, in some cases in partnership with WSDOT or county paving projects.

Sidewalk Program (SP): Provides funding for sidewalk projects that improve safety and connectivity.

New Streets: Creates partnerships, takes advantage of paving opportunities and helps make economy of scale work in favor of small cities.

Federal Match: Provides the local match for federally funded TEA-21 projects meeting routine SCP eligibility.

Road Transfer Program (RTP): Provides funding for extraordinary maintenance on routes transferred from the state highway system to cities with a population under 20,000.

Table 4-1 provides an overview of TIB funding received by Clark County, 1989 to 2003.

Table 4-1: TIB Funding Provided to the Clark County Region, 1989 to 2003

TIB Funding Programs	TIB Program Funds to Clark County 1989 to 2003
Transportation Partnership Program (TPP)	$74,641,047
Arterial Improvement Program (AIP)	$32,406,514
Small City Program (SCP)	$2,068,414
Pedestrian, Safety & Mobility Program (PSMP)	$1,466,293
City Hardship Assistance Program (CHAP)	$249,654
Sub-Total	$110,831,922
Federal ISTEA/TEA-21 Local Match	$1,796,320
Total	**$112,628,242**

County Road Administration Board (CRAB)

The County Road Administration Board was created by the Legislature in 1965 to provide statutory oversight of Washington's thirty-nine county road departments. The County Road Administration Board (CRAB) manages two grant programs to assist counties in meeting their transportation needs.

County Arterial Preservation Program (CAPP)

The County Arterial Preservation Program (CAPP) helps counties to preserve their existing paved arterial road networks. Funding is provided to counties as direct allocations based on paved arterial lane miles. The program generates approximately $14 million a year for road improvements.

Rural Arterial Program (RAP)

The Rural Arterial Program (RAP) is funded by fuel tax revenues and is available for road and bridge reconstruction funding on a competitive basis. Proposed projects for this program are rated by a specific set of criteria including (1) structural ability to carry loads, (2) capacity to move traffic at reasonable speeds, (3) adequacy of alignment and related geometrics, (4) accident rates and (5) fatal accident rates. The program generates approximately $19 million a year for road improvements.

Community Economic Revitalization Board (CERB)

The Community Economic Revitalization Board (CERB) was established by the legislature to make loans and/or grants for public facilities, including roads, which will stimulate investment and job opportunities, reduce unemployment, and foster economic development.

Public Works Trust Fund (PWTF)

The Public Works Board was created by the 1985 legislature. The mission of the Public Works Board is "to assist Washington's local governments and private water systems in meeting their public works needs to sustain livable communities." The Public Works Trust Fund (PWTF) provides low interest loans to local governments for infrastructure improvements and is funded by utility taxes.

WSDOT Grant Programs

WSDOT administers many transportation related grants that are available to local agencies. However, many of these programs are dependent on the legislature allocating funding and can vary from year to year.

LOCAL FUNDING

Local revenue comes from a variety of sources such as property tax for highway projects and sales tax for transit projects. Other revenues include moneys from street use permits, gas tax, utility permits, and impact fees.

Property Tax

Clark County allocates a portion of their property taxes to the County Road Fund (Approximately $2.25 per $1,000 of assessed value). Cities also receive transportation dollars from the city's general funds, of which property taxes are a major revenue source.

Arterial Street Fund

This is the distribution of a portion of the state gasoline tax to cities and counties based on each jurisdiction's population. The funding can be used for street rehabilitation and construction.

Transportation Impact Fees (TIF)

Transportation impact fees were authorized in HB 2929 by the 1990 Legislature to address the impact of development activity on transportation facilities. Jurisdictions within Clark County have established Transportation Impact Fee programs and are periodically reviewed. Generally, new developments and redevelopments are assessed a Traffic Impact Fee, based on their impact to the transportation system.

Road Improvement District (RID)

RID's can be formed and funded by properties benefiting from an improvement. They are usually formed at the request of property owners. Local government will build the project using revenue bonds from the road improvement district.

Frontage Improvement Agreements

Most developments are required to construct frontage improvements. In cases where the development abuts a proposed road improvement project, it is often beneficial for the developer to pay local government for their share of the road improvement and for local government to construct the improvements as part of the overall capital project.

Latecomers Fees

According to State law, new developments and re-developments may be charged "Latecomer Fees" by the County for improvements that would have been required for their development, but have been constructed by the County.

TRANSIT REVENUES

Revenue sources that have been described above are intended exclusively for highway investment or have the flexibility to be used for highway/transit funding. Transit systems are also funded by fare box proceeds, federal funds and other local funds. This section will address revenue sources specifically for the purpose of funding transit needs. 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 September 2005, a majority of voters supported a funding proposition that added 0.2 percent sales and use tax to C-TRAN's previously approved 0.3 percent, for a total of 0.5 percent (five cents on a $10.00 purchase). This additional funding allows C-TRAN to preserve existing service and restore basic service to areas that had not received transit service in five years.

Transit: Farebox

Over the past few years, C-TRAN has focused on increasing its farebox recovery, the percentage of operating costs paid for by farebox revenues. In 2004, farebox recovery was 19.65 percent, a dramatic increase over the 12.20 percent achieved in 1999. The total amount of funding gained through passengers fares was $3.8 million in 2004. In May 2005, C-TRAN increased fares to help attain the goal of increasing C-TRAN's farebox recovery and to keep pace with increasing operating costs.

Transit: Federal

The federal Surface Transportation Program places much greater emphasis on intermodal flexibility and allows funds to be used for transit capital projects. In addition, federal National Highway System funds can be used on alternative arterials or transit projects within the NHS corridors if there is a direct benefit to an NHS facility. C-TRAN received $6.2 million from federal sources in 2004. These funds include Section 5307 monies for buying or maintaining buses and facilities, Section 5209 discretionary funds for specific projects awarded through Congressional earmarks, Section 5208 funds for information technology projects, and Transit Enhancement funds.

Transit: State

C-TRAN currently receives Special Needs funding from WSDOT. This funding is used to serve persons with special transportation needs.

Competitive grant funding will be available through the new Office of Transit Mobility's Regional Mobility Grants in 2006. C-TRAN submitted grant applications in November 2005 that are pending.

Transit: Sales and Use Tax

C-TRAN's major revenue source is a 0.5 percent sales and use tax. A 0.3 percent sales tax that was approved in 1980 and an additional 0.2 in 2005. C-TRAN received $14.6 million in sales tax revenue during 2004 (at the 0.3 percent rate). C-TRAN's tax authority allows as much as 0.9 percent for operation, maintenance and capital needs of the transit system, subject to voter approval.

POTENTIAL TRANSPORTATION REVENUES

The revenue sources described in this section are programs approved by the State Legislature that authorize jurisdictions to impose fees at the local level for specific transportation infrastructure categories with voter approval. These programs have not been instituted in this region.

Local Option Vehicle License Fee

RCW 82.20.020 authorizes an additional motor vehicle license fee of $15 per passenger car for transportation purposes.

Real Estate Excise Tax (REET)

The use of REET is restricted to capital projects identified in the capital facilities plan element of the comprehensive plan. Clark County now collects REET to the extent authorized under state law but does not use the funds for transportation capital facilities. The funds are currently used for park capital facilities and the balance is dedicated to the economic development revolving fund.

Commercial Parking Tax

RCW 82.80.030 authorizes a tax on commercial parking which can include paid parking lots as well as parking spaces that accompany the lease of nonresidential space. The proceeds may be used for general transportation purposes. The tax could be based on gross proceeds or fee per vehicle.

Motor Vehicle Fuel Tax (MVFT)

With voter approval, a 10% surcharge can be imposed on state Motor Vehicle Fuel Tax (MVFT) for fuel sales in the county. Revenue generated would be shared, based on population, between the county and the cities within the county.

Transportation Benefit Districts

2005 legislation (Senate Bill 5177), codified primarily to RCW 36.73, allows jurisdictions to form a transportation benefit district. Funds generated can be used for improvements listed in the statewide transportation plan or the Metropolitan Transportation Plan (MTP). 60% of the value of the improvements must be to Highways of Statewide Significance (HSS). The District,

if formed, could impose new taxes and fees if approved by the electors of the District. New taxes and fees can include 1) a sales and use tax not to exceed 0.2% for a duration of up to 10 years and extendable, by vote of the electors, for an additional 10 years, 2) a vehicle license fee up to $100 per vehicle, 3) an impact fee with credit given for any impact fee charged to that same development by a participating jurisdiction with exemption for residential developments of less than 20 units, and 4) tolls for facilities approved by the District. In addition, authority typically granted to cities and counties, is extended to the District. This authority includes imposition of property tax in excess of the 1% limitation and to bond revenue streams if approved by voters, authority form a local improvement district, to form a road improvement district and to impose a commercial parking tax.

MTP REVENUES

Data received from WSDOT Economics Branch on transportation revenues generated in the Clark County region during the past decade is used to provide a basis for determining revenues likely to be generated for future transportation needs. Historic data derived from Transportation Improvement Programs (TIPs) adopted by local jurisdictions and by RTC since the passage of the ISTEA are also used as the basis for annual revenue estimates. Currently, funding is programmed in the Metropolitan Transportation Improvement Program (MTIP) through 2008.

Table 4-2 presents a summary of potential transportation revenues that could be generated in Clark County in the next twenty-five years (based on 2005 $). However, it should be noted that not all revenues generated in the Clark County region are distributed back to this region for use here. Also, it should be noted that local revenues generated have to fund local projects as well as regional type transportation improvements. It is the regional transportation projects that are the focus of the MTP's financial plan and the "fiscal constraint" test.

Table 4-2: Potential Revenues Generated in Clark County

POTENTIAL REVENUES GENERATED IN CLARK COUNTY	
REVENUES GENERATED:	**MTP (25-YEARS) (in Year 2005 $)**
Federal and State	$3,318,140,000
Local	$1,276,000,000
Federal for Transit Capital Equipment (assumes average of $3.5 m per year)	$87,500,000
Sub-Total	**$4,681,640,000**
TRANSIT REVENUES FOR TRANSIT OPERATIONS*:	**Years 2005-2011 Only***
Sales Tax, Fare Box Recovery, Interest, Operating Grants, Other	$248,082,908

*Transit Revenues are for 7 years: 2005-2011. C-TRAN will be addressing a longer-range revenue forecast a part of their 20-year planning process in 2006

Source: State and Federal Transportation Revenue And Expenditure Tables, By County
WSDOT Economics Branch, C-TRAN

MTP COSTS

ASSUMPTIONS

Costs of improvements to the Designated Regional Transportation System are the focus of this section. Costs of transportation improvements and projects are expressed in 2005 dollars. Capacity improvement costs, capital costs for the transit system as well as transportation system maintenance, preservation and operations costs are considered in the regional transportation planning process. Costs for regional system highway, transit, pedestrian and bicycle projects are considered in the Finance Plan as well as costs for Intelligent Transportation System, Transportation System Management improvements and Transportation Demand Management. Costs for other modes, e.g. freight rail system improvements and inter-city passenger rail, are assumed to be met at the statewide or national level or by private interests.

SYSTEM MAINTENANCE, PRESERVATION AND OPERATIONS

Before consideration can be given to system expansion, the region needs to ensure that sufficient money is available to adequately maintain, preserve and operate the transportation system already in existence. It costs, on average, $30.2 million annually to maintain and operate the highway system in Clark County.

Maintenance information provided by the state in 2002 showed that State highway maintenance costs about $27.47 per registered vehicle per year. Some of the component maintenance costs are: $5.52 per vehicle per year for snow and ice control, $3.45 for pavement maintenance, $2.49 for vegetation maintenance, $2.25 for bridge maintenance and operations, $2.18 for storm water management, $1.50 for striping, marking and guidepost maintenance, $1.11 for highway lighting, $1.07 for rest area maintenance and operations, $0.94 for traffic signal maintenance, $0.88 for sweeping and cleaning, $0.84 for roadway hazard patrol and removal, $0.80 for sign maintenance and $0.77 for litter control.

The estimated annual cost of operating C-TRAN's existing service (Spring 2005) is about $29 million. As the transportation system ages and grows over the 25 year period, these operating and maintenance costs will consume a greater percentage of the available revenues. Projected funding for transit system operation and improvement is outlined in C-TRAN's Transit Development Plan (TDP). The latest published TDP, issued in May 2005, provides a review of 2004 and covers the years 2005 through 2010.

C-TRAN's current funding and service plan extends through the year 2011. During 2006, C-TRAN's Board of Directors is expected to adopt a 20-Year Transit Development Plan, providing longer-term vision for transit service and its funding.

SYSTEM IMPROVEMENTS

Capital costs of the 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. MTP highway system expansion and transit capital costs have been estimated at over $1,297.83[3] million over the twenty-five year period (see Table 4-3). The total cost of capital projects listed in Appendix A, that includes both Designated Regional Transportation System projects and local projects included in air quality analysis, amounts to over $1.711 billion.

NOTE*: Project cost estimates provided in Table 4-3 are planning level cost estimates only. Cost estimates are liable to change as more detailed pre-design and design work is initiated for each of the projects. Cost estimates are reviewed in detail at each MTP update.*

Projects are consistent with those identified in Washington State Highway Systems Plan and local Capital Facilities Plans.

Table 4-3: MTP List of "Fiscally Constrained" Projects 2005-2030

MTP 2005 Update: Designated Regional Transportation System Projects List of "Fiscally-Constrained" Projects, 2005 to 2030				
Facility	**Cross Streets**	**Improvement**	**Jurisdiction/ Agency**	**Cost Estimate in $'000s (2005)**
Interstates				
I-5	Columbia River Crossing (CRC)	Environmental Impact Statement/Design	WSDOT	$50,000
I-5	99th Street to I-205	3 lanes ea. direction	WSDOT	$39,100
I-5	The Salmon Creek Interchange Project (SCIP) at 134th/139th Street	Construct NE 139th St. from NE 20th to NE 10th Ave. Reconstruct interchange with ramps added at 139th St. Improve access to I-205 with flyover from 134th St to I-205 southbound NE 10th Ave. Improve NE 10th Ave. from 134th to 149th St. with turn lanes.	WSDOT	$94,000

[3] Cost estimates for the Plan were reviewed in 2005. Credit has not been taken for projects which are already fully or partially funded.

MTP 2005 Update: Designated Regional Transportation System Projects List of "Fiscally-Constrained" Projects, 2005 to 2030				
Facility	**Cross Streets**	**Improvement**	**Jurisdiction/ Agency**	**Cost Estimate in $'000s (2005)**
I-5	I-205 to 179th Street	Auxiliary lane in each direction	WSDOT	Incl. in 134th St costs
I-5	179th Street to SR-502	Auxiliary lane in each direction	WSDOT	$16,000
I-5	179th Street Interchange	Reconstruct Interchange	WSDOT	$31,000
I-5	SR-502 Interchange	New Interchange	WSDOT	$35,000
I-5	Pioneer Street (Ridgefield)/ SR-501 Interchange	Replace Interchange	WSDOT	$32,000
I-5	319th Street Interchange	Improve Interchange	WSDOT	$7,000
I-205 South Corridor		Conduct environmental analysis for approved access plan for I-205 south corridor	Vancouver	$4,300
I-205	Mill Plain Exit (112th Avenue connector)	Build direct ramp to NE 112th Avenue	WSDOT	$12,000
I-205	SR-14 to Mill Plain	Ramp Separation	WSDOT	$50,000
I-205	Mill Plain to 28th Street	Ramps/Frontage Road between Mill Plain and 28th Streets	WSDOT	$58,000
I-205	28th Street	North ramps	WSDOT	$22,000
I-205	SR-500	WB SR-500 to SB I-205 Flyover	WSDOT	$28,000
I-205	SR-500 to Padden Parkway	3 lanes each direction 83rd ramps	WSDOT	$14,000
I-205	Padden Parkway to 134th Street	3 lanes each direction	WSDOT	$64,000
State Routes				
SR-14	I-205 to 164th Avenue	3 lanes ea. direction	WSDOT	$15,000

MTP 2005 Update: Designated Regional Transportation System Projects List of "Fiscally-Constrained" Projects, 2005 to 2030				
Facility	**Cross Streets**	**Improvement**	**Jurisdiction/ Agency**	**Cost Estimate in $'000s (2005)**
SR-14	NW 6th Av. to SR-500/Union	2 lanes ea. direction w. interchange	WSDOT	$40,000
SR-14	SR-500/Union to 32nd Street	Improve capacity	WSDOT	$25,000
SR-14	32nd Street Vicinity	Interchange	WSDOT	$25,000
SR-500	St. Johns Interchange	New Interchange	WSDOT	$26,300
SR-500	42nd Avenue	Grade Separation (cost estimate includes SR-500/54th Ave. project)	WSDOT	$28,000
SR-500	54th Avenue	Interchange with collector-distributor connecting to Andresen	WSDOT	see above
SR-500	at I-205	Extend westbound auxiliary lane	WSDOT	$975
Pioneer Street/SR-501	I-5 NB Ramps to S 10th Street	2 lanes each direction w/ turn lane	Ridgefield	$4,238
Pioneer Street/SR-501	.5 mile west of S 45th to I-5 NB ramps	2 lanes each direction w/ turn lane	Ridgefield	$1,898
SR-502	NE 10th Avenue to Battle Ground	2 lanes each direction	WSDOT	$50,000
SR-503	at Padden Parkway	Add Interchange	Clark County/ WSDOT	$17,000
SR-503	East Fork Lewis River	Northbound and southbound climbing lane	WSDOT	$5,000
Local Arterials				
Grace Av	Grace Av/East Main St	Align S Grace and N Grace	Battle Ground	$350
SE Grace Av	East Main St to NE 199th St	1 lane ea. direction, w/turn lane, bicycle and pedestrian facilities	Battle Ground	$1,700

MTP 2005 Update: Designated Regional Transportation System Projects List of "Fiscally-Constrained" Projects, 2005 to 2030				
Facility	**Cross Streets**	**Improvement**	**Jurisdiction/ Agency**	**Cost Estimate in $'000s (2005)**
NE 199th St	SE Grace to East City Limits	1 lane ea. direction, w/turn lane, bicycle and pedestrian facilities	Battle Ground	$2,000
NW 6th Av	Ivy to Division	1 lane ea. direction, w/turn lane	Camas	$1,200
38th Avenue	Bybee Road to Astor	1 lane ea. direction, w/turn lane	Camas	$1,300
Padden Parkway	Andresen	Add Interchange	Clark County	$15,000
117/119th Street	NW 7th Avenue to Hazel Dell Avenue	1 lane ea. direction, w/turn lane	Clark County	$4,870
117th Street	Hazel Dell Avenue to Highway 99	1 lane ea. direction, w/turn lane	Clark County	$3,470
119th Street	Salmon Creek Av. to 72nd Avenue	1 lane ea. direction, w/turn lane	Clark County	$10,800
119th Street	72nd Avenue to SR-503	2 lanes ea. direction, w/turn lane	Clark County	$11,000
NE 119th Street	SR-503 to NE 172nd Avenue	1 lane ea. direction, w/turn lane	Clark County	$16,500
179th Street	NW 5th to NW 11th Avenue	1 lane each direction w/turn lane	Clark County	$9,500
179th Street	I-5 to NW 5th Avenue	2 lanes ea. direction, w/turn lane	Clark County	-
179th Street	NE 10th Avenue to NE 29th Avenue	2 lane ea. direction, w/turn lane	Clark County	$16,300
179th Street	NE 29th Avenue to NE 50th Avenue	1 lane ea. direction, w/turn lane	Clark County	$8,000
179th Street	NE 50th Avenue to Cramer Road	1 lane ea. direction, w/turn lane	Clark County	$8,100
179th Street	Cramer Road to SR-503	2 lanes ea. direction, w/turn lane	Clark County	$2,500
Highway 99	South RR Bridge (Ross Street) to NE 63rd Street	2 lane ea. direction, w/turn lane (rail bridge)	Clark County/ Vancouver	$4,300

MTP 2005 Update: Designated Regional Transportation System Projects List of "Fiscally-Constrained" Projects, 2005 to 2030				
Facility	**Cross Streets**	**Improvement**	**Jurisdiction/ Agency**	**Cost Estimate in $'000s (2005)**
Highway 99	NE 63rd to NE 99th Street	Pedestrian route completion	Clark County	$2,500
Highway 99	NE 99th Street to NE 117th Street	2 lane ea. direction, w/turn lane	Clark County	$3,300
Highway 99	117th to 129th Street	2 lanes each direction w/ turn lane	Clark County	$6,000
St. John's Blvd.	NE 50th Avenue to 72nd Avenue	2 lanes ea. direction, w/turn lane	Clark County	$15,525
72nd Avenue	N. of 88th Street to St. Johns	2 lane ea. direction, w/turn lane	Clark County	$8,600
NE 72nd Avenue	119th to 133rd Street	2 lanes each direction w/ turn lane	Clark County	$11,880
NE 137th Avenue	NE Fourth Plain Boulevard to NE 76th Street	1 lane ea. direction, w/turn lane	Clark County	$880
Ward/172nd Av.	S. 99th Street to 119th St.	Realignment	Clark County	$9,200
Timmen Road	at La Center Road	Construct right-turn lane	La Center	$208
La Center Road	at Timmen Road	Construct left turn lanes	La Center	$440
E 4th Street		Culvert/bridge replacement	La Center	$1,948
Highland Street	E 4th Street	Realignment and improved intersection	La Center	$616
Highland Street	High School to E City Limits	Urban upgrade	La Center	$575
E 4th Street	Highland to E. City Limits	Urban upgrade	La Center	$993
Pioneer Street/SR-501	.5 miles west of S 45th to W of Reiman Road	Widen, 1-2 lanes each direction	Ridgefield	$4,178
Pioneer Street Bridge	over Gee Creek	Bridge Replacement	Ridgefield	$1,500
Hillhurst Road	SR-501 to Royle Road	1 lane each direction w/ turn lane	Ridgefield	$4,053

MTP 2005 Update: Designated Regional Transportation System Projects List of "Fiscally-Constrained" Projects, 2005 to 2030				
Facility	**Cross Streets**	**Improvement**	**Jurisdiction/ Agency**	**Cost Estimate in $'000s (2005)**
Port of Ridgefield Rail Crossing	Rail Overcrossing to Port of Ridgefield, in vicinity of Division St., Ridgefield	Grade separated crossing of mainline railway Feasibility study and environmental impacts review	Ridgefield	$20,000
Amtrak Station	At NW 11th Street	Renovation of Train Station	Vancouver	$750
Main Street	6th Street to 15th Street (Mill Plain)	Convert to two-way street	Vancouver	$9,000
Broadway	6th Street to 15th Street	Reconstruct and convert to two-way street	Vancouver	$2,300
Confluence Land Bridge over SR-14	Fort Vancouver to Old Apple Tree	New shared-use bridge over SR-14	Vancouver	$10,480
SE 20th Street	192nd Ave. to Camas City Limits	New urban minor arterial roadway	Vancouver	$5,200
SE 1st Street	164th Avenue to 192nd Avenue	2 lanes ea. direction, w/turn lane	Vancouver	$12,000
18th Street	86th Avenue to 112th Avenue	Extend existing street 1 lane ea. direction, w/turn lane	Vancouver	$27,500
18th Street	112th Avenue to 138th Avenue	2 lanes ea. direction, w/turn lane	Vancouver	$17,600
18th Street	138th Avenue to 162nd Avenue	2 lanes ea. direction, w/turn lane	Vancouver	$10,750
NE 18th Street	162nd Avenue to 192nd Avenue	2 lanes ea. direction, w/turn lane	Vancouver	$10,500
NE 28th Street	142nd Avenue to 162nd Avenue	1 lane ea. direction, w/turn lane	Vancouver	$6,500
Fourth Plain	I-5 to Railroad Bridge	2 lanes each direction	Vancouver	$22,500
Fourth Plain Boulevard/ Andresen	Intersection Influence Area	Reconstruct Fourth Plain in vicinity of 65th/66th Avenue to Andresen	Vancouver	$4,000
Fruit Valley Rd	Whitney to 78th Street	1 lane ea. direction, w/turn lane	Vancouver	$12,000

MTP 2005 Update: Designated Regional Transportation System Projects List of "Fiscally-Constrained" Projects, 2005 to 2030				
Facility	**Cross Streets**	**Improvement**	**Jurisdiction/ Agency**	**Cost Estimate in $'000s (2005)**
Andresen Road	Fourth Plain to 40th Street	Pedestrian improvements and urban upgrade.	Vancouver	$300
Lieser Road/ NE 87th Avenue	at Mill Plain	Intersection improvement	Vancouver	$3,850
112th Avenue	Mill Plain to 49th Street	2 lanes ea. direction, w/turn lane	Vancouver	$4,500
138th Avenue	18th Street to 28th Street	2 lanes ea. direction, w/turn lane	Vancouver	$7,500
138th Avenue	28th Street to 49th Street	2 lanes ea. direction, w access management	Vancouver	$15,000
137th Avenue	49th Street to Vancouver City Limits	2 lanes ea. direction, w/turn lane	Vancouver	$11,500
NE 137th Avenue	City Limits to Fourth Plain	2 lanes ea. direction, w/turn lane	Vancouver/ Clark Co (annexation area)	$4,700
164th Avenue	SE 1st to SR-14	Reconstruct 5 intersections to improve traffic flow	Vancouver	$5,500
192nd Avenue	SE 1st Street to NE 18th Street	2 lanes ea. direction, w/turn pockets	Vancouver	$8,000
E Street/ D Street	West City Limits (Lechner/6th) toEast City Limits (Sunset View Road)	Boulevard Design Improvement(1 lane each direction with left turn, sidewalks and bike lanes)	Washougal	$3,350
Yacolt Road	Amboy Avenue to Railroad Avenue	Rebuild road w. shoulder 1 lane each direction	Yacolt	$367
Transit Projects				
C-TRAN System	Super Stops	Enhanced stop locations at key connections	C-TRAN	$430
C-TRAN System	System Wide	Deploy ITS (Phase 2 and 3)	C-TRAN	$8,521
C-TRAN System	System Wide	Transit Service Change	C-TRAN	

MTP 2005 Update: Designated Regional Transportation System Projects List of "Fiscally-Constrained" Projects, 2005 to 2030				
Facility	**Cross Streets**	**Improvement**	**Jurisdiction/ Agency**	**Cost Estimate in $'000s (2005)**
Salmon Creek Park & Ride	at I-5/NE 134th Street	Realign Salmon Creek Park & Ride at current site in conjunction with I-5/134th/139th Interchange	C-TRAN	$4,000
C-TRAN Transit Enhancements	N/A	Improvements/amenities at bus stops (through 2010)	C-TRAN	$314
C-TRAN Fleet	N/A	Vehicle Replacement for fixed route and demand response (through 2010)	C-TRAN	$5,722
Vancouver Transit Center	Mall area	Relocate Van Mall Transit Center to C-TRAN AOM	C-TRAN	$5,700
99th Street Park and Ride	off I-5	Park & Ride	C-TRAN	$8,399
ITS				
Various[4]	System Wide	Intelligent Transportation System (ITS) Additions		$45,000
Total Costs (Regional Transportation System)				**$1,297,830**

Note that apart from the Environmental Impact Statement Study, I-5 Columbia River Crossing projects are not included in the "fiscally-constrained" MTP (see Strategic Plan description in MTP Appendix B).

A summary of costs of transportation system needs is presented in Table 4-4 below.

[4] Refer to description of ITS and the VAST program of projects in chapter 5, page 5-8, 5-9.

Table 4-4: Projected Costs of MTP Regional Transportation System Needs

Projected Costs of MTP Transportation System Needs		
	COSTS	
Transportation System Component	**Annual Cost**	**MTP 25-YEARS (in Year 2005 $)**
HIGHWAYS		
Total Highway Maintenance and Preservation	$30,200,000	$755,000,000
Regional Highway and Transit Capital Costs	$50,793,200	$1,297,830,000
Transportation Demand Management	$2,000,000	$50,000,000
Transportation System Management	$2,000,000	$50,000,000
Pedestrian and Bicycle Projects	$4,000,000	$100,000,000
Sub-Total		**$2,252,830,000**
TRANSIT OPERATIONS*		**Years 2005-2011 Only***
Transit Operations*	$29,136,867	$248,082,908

*Transit costs are for 7 years: 2005-2011 and exclude depreciation.
C-TRAN will be addressing a longer-range revenue forecast as part of their 20-year planning process in 2006

Source: State and Federal Transportation Revenue And Expenditure Tables, By County, WSDOT Economics Branch, C-TRAN

CONSISTENCY BETWEEN MTP AND STATE SYSTEMS PLAN AND LOCAL PLANS

All recommended projects contained within the MTP are consistent with State and local plans. The *MTP* financial plan is required by the federal government to be "fiscally constrained". The MTP includes state projects identified in the State Highway System Plan, 2003-2022 (February, 2002). However, the State's Highway System Plan identifies transportation needs beyond the revenue levels currently available for regional transportation uses identified in this MTP.

REVENUES AND COSTS

Federal law requires that the *MTP* be "fiscally constrained"; there must be sufficient revenues to fund the costs of identified transportation system improvements. With limited revenues available for funding transportation improvements, the most cost-effective transportation solutions must be identified and selected. The analysis of transportation needs and revenues presented in local Growth Management Act (GMA) plans, including their Capital Facilities Plan element, the *2003-2022 State Highway System Plan*, and *Metropolitan Transportation Improvement Program (MTIP) 2006-2008* are used as the basis for the MTP's financial plan. Both state and local transportation planning processes are required to exercise fiscal responsibility in preparing transportation finance plans. The GMA requires that local jurisdictions prepare a Capital Facilities Plan (CFP) element that includes transportation projects.

In comparing revenues generated in Clark County (Table 4-2) with estimated cost of regional transportation system elements presented in the MTP's Chapter 4 (summarized in Table 4-4), it appears that the MTP is fiscally constrained. There are sufficient funds to fulfill the identified regional transportation system elements.

However, it should be pointed out that financial analysis for transportation needs over twenty plus years into the future is challenging. Table 4-2 reports on all transportation revenues; these revenues need to fund both the regional transportation system that is the focus of the MTP's Chapter 4 financial plan as well as fund the local transportation system. An uncertainty in financial analysis for the region is the future status of the region in terms of donor/recipient status. Clark County has been a 'donor' region within Washington over the past few decades. The County region collects more in transportation taxes and fees than it receives back in transportation revenues to spend on transportation projects. Between 1984 and 2003, the Clark County region generated over $1.278 billion in state and federal transportation revenues[5] and received back $948.129 million to use in funding transportation system improvements. This amounts to a ratio of 0.74 and a difference of $330.18 million over ten years. Another uncertainty is the inflation factor. The financial analysis presented in this MTP assumes revenues and costs in 2005 dollars. This method has advantages in that the methodology is straightforward, but has drawbacks in that inflation is not considered in the analysis. However, the inflation factor has an impact on both the revenues and costs sides of the equation. On the revenues side, gas tax is a flat tax and does not keep pace with inflation. On the project costs side, the longer a project is deferred, the more expensive it will be. Another problem that the transportation sector faces is that although the federal government authorizes transportation dollars at a certain level, the actual appropriation for their use is at a lower level.

In funding the transportation system, revenues have to be allocated to project or operating costs based on funding eligibility requirements. For example, the 18th Amendment to the Washington State Constitution dedicates motor fuel tax proceeds to "highway purposes". Also, projects and/or operating costs have to fit the rules for the specific program from which funds are obtained. The funding of large highway construction projects, such as adding freeway lanes, improving intersections and constructing new freeway interchanges, almost always involves a mix of funding sources which must be packaged together in order to move forward with a particular project.

The type of project and the jurisdiction who owns the roadway (interstate, state highway, local/regional arterial) are often good indicators for how the transportation project is funded. Roadway operations, maintenance and preservation, pedestrian and bicycle projects are usually funded locally through an annual budget process. Projects that add system capacity, such as adding lanes on street arterials, state highways, or on the interstate system, will most likely involve multiple sources and may include various competitive grant programs. The capacity expansion projects

[5] From Sources such as Motor Vehicle Fuel Tax, Motor Vehicle Licenses, Permits, Fees, etc

FUNDING STRATEGIES

In the next MTP update anticipated in late 2006 or early 2007, there will be a review of funding options and strategies for the region. The next MTP update will incorporate revised project cost estimates and project needs included in updates to Washington's Transportation Plan and Highway System Plan as well as the Capital Facilities Plan elements of local comprehensive growth management plans. Clark County is a 'donor' region as the region collects more in transportation taxes and fees than it receives back in transportation revenues. As a significant urban area in Washington State, this region can expect to continue as a 'donor' region but if the ratio of collections to distributions changes in Clark County's favor, this could have a significant impact on the ability to fund transportation system improvements in this region.

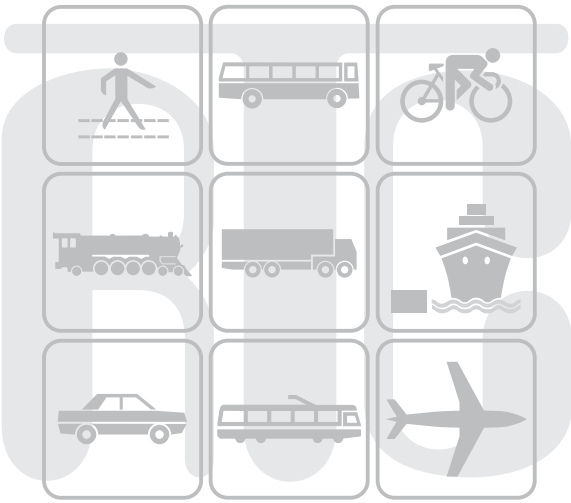
As previously mentioned, a funding proposition supported by voters in September 2005 allows for preservation of existing transit service and restoration of basic levels of service to key areas through 2011. Capital projects approved by C-TRAN's Board of Directors in 2004 will exhaust C-TRAN's capital reserves over the next five years, curtailing additional capital facilities being developed in years 2012 through 2030, unless additional funding is sought by the agency. As Clark County continues to grow, additional transit funding will likely be needed to keep pace with demand.

FISCAL CONSTRAINT AND THE MTP

The MTP for Clark County represents a fiscally-constrained transportation Plan in that projected revenues appear to be available in the twenty-five year time horizon to meet the estimated cost of designated regional transportation system projects[6] (in 2005 dollars) listed in Appendix A. The financial outlook can change if cost estimates for certain projects are increased and/or if projected revenues increase or decrease.

The Clark County region does have additional transportation needs beyond those improvements addressed in the "fiscally-constrained" MTP. Projects to meet these needs cannot be incorporated into the Plan at this time as they require further study as part of the comprehensive growth management planning process or state planning process, but these needs will be reviewed again in the next MTP update anticipated for late 2006 or early 2007. More detailed information on revenues available to this region under the 2005 federal Transportation Act reauthorization, SAFETEA-LU, should also be available by the time of the next MTP update.

[6] Regional projects include all state transportation facilities, principal arterials and some minor arterials. Local projects (remainder of the minor arterial system, collectors and local roads) are not included in the MTP's detailed fiscal analysis.



CHAPTER 5

SYSTEM IMPROVEMENT AND STRATEGY PLAN

OVERVIEW: DEVELOPMENT OF A BALANCED REGIONAL TRANSPORTATION SYSTEM

This chapter summarizes the solutions and strategies needed to provide an adequate level of regional mobility and accessibility over the next 25 years and to support the Comprehensive Growth Management Plan land use goals for the region. A wide range of solutions and strategies are needed to meet regional travel demand. There are strategies 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, solutions requiring physical construction 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, as well as plans to make for a safer regional transportation system for mobility of people and freight. All transportation modes are to be addressed. Development of a balanced regional transportation system with reduced dependence on the single occupant vehicle (SOV) relies on development of alternative modes of transportation, changed land use densities and patterns and/or changes in lifestyle. The chapter concludes with a map showing transportation system capacity expansion improvements included in the MTP.

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 the routine, regularly-scheduled and necessary maintenance work identified by local jurisdictions. The MTP supports maintenance being given high priority in the programming of transportation funds.

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.

BRIDGE DEFICIENCIES

Maintenance and preservation projects required on bridges are identified through the Bridge Management System (BMS) managed by WSDOT. Bridges on the Clark County highway system include: I-5 bridge crossings at the Columbia River, Salmon Creek, NE 129th Street, NE 134th Street, East Fork Lewis River and Lewis River; SR-14 crossings at West Camas Slough and Lawton

Creek; SR-501 crossing of the rail lines in Vancouver, SR-503 crossings of Cedar Creek, Salmon Creek, Chelatchie Creek and the Lewis River at Yale; the La Center Bridge and Heisson Bridge.

SAFETY DEFICIENCIES

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.

Measures to improve the safety and security of the transit system for transit passengers and employees have been implemented by C-TRAN in keeping with Federal Transit Administration's Strategic Plan (see Chapter 3).

ECONOMIC DEVELOPMENT AND FREIGHT TRANSPORTATION

The prosperity of a region is dependent on the provision of transportation infrastructure to support economic development. Economic development emerged as the prime evaluation criteria for prioritizing MTP projects in the MTP Regional System Improvements and Prioritization Process. Economic development stimulus is also a significant focus in the update to the Comprehensive Growth Management Plan for Clark County now underway.

FREIGHT TRANSPORTATION

Highway freight transportation needs were addressed in a regional freight transportation study undertaken during 1993 to identify regional freight transportation issues and to investigate data availability and needs regarding freight transportation. The results of the study are documented in *Southwest Washington Regional Freight Transportation Study, Final Report* (December, 1993; RTC/JHK & Associates). The Study noted the shortage of data relating to freight transportation. The report also noted the need for improved access to the Port of Vancouver via the Mill Plain Extension. The Mill Plain Extension project was subsequently completed in 2000. There is need for data relating to transportation of freight through the region, freight delivery within the region and freight origins and destinations. The WSDOT-developed Intermodal Management System (IMS) provides input on regional intermodal needs. The community has noted a concern about the transportation of hazardous materials on the transportation system. WSDOT adopted a Statewide Freight and Goods Transportation System (FGTS) in 1995 that categorizes highways and local roads according to the tonnage of freight they carry. The FGTS is updated periodically. Washington State also created the Freight Mobility Strategic Investment Board (FMSIB) with a mission to create a comprehensive and coordinated state program to facilitate freight movement between and among local, national and international markets in order to enhance trade opportunities. The Board is also charged with finding solutions that lessen the impact of the movement of freight on local communities. The Board proposes policies, projects, corridors and funding to the legislature to promote strategic investments in a statewide freight mobility transportation system. Freight transportation needs are highlighted in the upcoming update to Washington's Transportation Plan. Refer to WSDOT's website at: http://www.wsdot.wa.gov/freight/images/WTP_FreightUpdate.pdf

FREIGHT RAIL

In 1990 the Washington State Legislature defined the purpose of the state's freight rail program and planning activities and established a comprehensive freight rail policy. They directed WSDOT to maintain and improve the freight rail system in the state through better freight rail planning, better cooperation to preserve rail lines, and increased financial assistance from the state. In 1995 the Legislature broadened the focus of the WSDOT Freight Rail Program to include not only light density lines and rail corridor preservation, but also mainline congestion and port access. The *Washington State Freight Rail Plan* provides detailed information about the state rail system, state freight rail programs and projects, rail line analysis, and funding priorities for the future.

A study, commissioned by the Port of Portland to support Metro's Region 2040 planning activities, suggests that freight rail transportation will increase significantly in the region during the MTP planning horizon. More recently freight rail needs in the Portland-Vancouver region were addressed as part of the I-5 Transportation and Trade Partnership. The Partnership concluded that several low-to-medium cost solutions can significantly improve existing rail capacity. One such "incremental improvement" is a proposed two-main track bypass around BNSF's Vancouver Yard. The Portland-Vancouver region "incremental improvements" are sufficient to address capacity needs for approximately 5 to 10 years given a growth rate of 1.625% to 3.25% per year. Beyond this additional improvements will be required that will require further study to fully identify. The Vancouver Rail Project, to add new Vancouver Yard rail bypass tracks and provide a grade-separated crossing of the rail yard by West 39th Street, is now funded as one of the state "nickel package" projects. 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 is currently studying improved rail access to the Port's industrial lands. A project to provide a grade-separated crossing of the main BNSF north/south rail-line which will both improve access to the Port of Ridgefield and National Wildlife Refuge is included in this MTP.

MARINE FREIGHT

Freight also travels to and from our region via the Columbia River. As noted in Chapter 3 (page 3-17) 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. The current channel depth limits service from ocean-going vessels, making it difficult for shippers to transport goods cost-effectively, especially if the vessels cannot be loaded to maximum capacity to sail out of the Columbia River. A $188 million project involves deepening the 40-foot navigation channel to 43 feet for 106 miles between the mouth of the Columbia River to the Port of Vancouver. A deeper channel will allow larger ships to import and export cargo more efficiently that will benefit trade. 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 (page 3-19), the Clark County region relies on access to the Portland International Airport in Oregon for air freight needs.

NON-MOTORIZED MODES

The Regional Transportation Plan supports the development of pedestrian and bikeway facilities to both access the transit system and for use as alternative transportation modes. Reduced reliance on automobiles is largely dependent on the development of adequate sidewalks and bikeways to access activity centers and to allow for intermodal connections in use of the transit system. The development of non-motorized transportation modes is a strategy that can maximize the capacity of the existing transportation system. Sidewalk and bicycle path/lane projects are most appropriately identified at the local level. If pedestrian and bicycle projects are forwarded to compete for regional funding, such as federal Surface Transportation Program Enhancement funds, then projects can be prioritized through the regional transportation program. Local jurisdictions within Clark County are giving more emphasis than in previous programs to non-motorized projects in efforts to redress the balance in transportation system development from highway and auto dependence to provision of alternative modes. There is additional description of walking and bicycling modes in Appendix A of the MTP.

In 2005, the Washington State legislature enacted amendments to the Growth Management Act to require new elements in local comprehensive plans. These new requirements are designed to promote an increase in the physical activity of the citizens of Washington State. The legislature found that regular physical activity is essential to maintaining good health and reducing the rates of chronic disease. The legislation says that, "providing opportunities for walking, biking, horseback riding, and other regular forms of exercise is best accomplished through collaboration between the private sector and local, state, and institutional policymakers. This collaboration can build communities where people find it easy and safe to be physically active. It is the intent of the legislature to promote policy and planning efforts that increase access to inexpensive or free opportunities for regular exercise in all communities around the state." The transportation elements of local comprehensive plans must now include a pedestrian and bicycle component to identify planned improvements for pedestrian and bicycle facilities. There is also a requirement that, wherever possible, the land use element should consider utilizing urban planning approaches that promote physical activity.

Pedestrian and bicycling needs are identified through state and local planning programs including recommendations from the Clark County Bicycle Advisory Committee, the Comprehensive Growth Management Plans, local plans and the *Clark County Trails and Bikeway System Plan* (December 1992; Clark County. Update anticipated in 2006). Detailed information on the trails system can be found at: http://www.ci.vancouver.wa.us/parks-recreation/index.asp

Also of regional significance is improvement of pedestrian and bicycle facilities that will improve access to transit facilities. 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.

Local jurisdictions have adopted design standards for arterials that include sidewalks and bicycle facilities.

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.

The pedestrian and bicycle modes are promoted through the Active Community Environments program in Clark County. Monthly meetings of the Active Community Environments Task Force are held with participation of Community Choices 2010, citizens, local jurisdictions, advocates for people with disabilities and for older people within the community, the Community Cycling Center and the Discovery Walks Festival.

BICYCLE TRANSPORTATION

Clark County's Bicycle Advisory Committee helps to identify and prioritize needed bike projects. In addition, jurisdictions in Clark County have addressed the need for bicycle and pedestrian projects in their Comprehensive Growth Management Plans and in the *Clark County Trails and Bikeway System Plan* (December 1992; Clark County). Notable pedestrian and bicycle projects in Clark County include the Columbia River Waterfront Trail, the Discovery Trail, the Columbia River/Evergreen Highway Trail, and bike lanes on priority arterials. Also of regional significance is improvement bicycle facilities which will improve access to transit facilities. 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. Clark County produces a map showing bicycle facilities and routes throughout the County. A "Cycling Clark County" map is published by Clark County.

PEDESTRIAN TRANSPORTATION

Local jurisdictions program projects to provide for better connectivity in the pedestrian walkways throughout Clark County. The City of Vancouver and Clark County have programs to prioritize and install curb cuts for better sidewalk accessibility. Pedestrian facilities are also important for access to transit.

Both bicycle and pedestrian facilities are integral design elements in highway projects. As roads are upgraded throughout the County then bicycle and sidewalks are added.

TRANSPORTATION DEMAND MANAGEMENT (TDM)

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. A list of many TDM strategies is outlined in Table 5-1. Such TDM strategies will become increasingly important as travel demand in the region continues to grow and transportation investments do not keep pace. TDM strategies can help to preserve transportation system capacity and RTC Board direction is to promote the use of such strategies throughout the Clark County region.

Local jurisdictions have implemented the Washington State **Commute Trip Reduction** law passed by the Washington State legislature in 1991 as a TDM tool. The law requires that local jurisdictions with major employers adopt a Commute Trip Reduction Ordinance and that employers who have 100 or more employees arriving at work between 6 a.m. and 9 a.m. should establish a commute trip reduction program for their employees. All affected Clark County jurisdictions have adopted CTR ordinances. The Law's established goals were amended by the 1997 state legislature. The defined goals were to have major employers reduce commute trips from the 1993 base year by 15% by 1995 or two years after program implementation, 20% by 1997 or four years after program

implementation, 25% by 1999 or six years after program implementation and to achieve 35% reduction by 2005 or twelve years after program implementation. When new employers are brought into the program, the goals are a reduction of 15% after two years, 20% after four years, 25% after 6 years, and 35% after twelve years. Currently, there are forty-nine affected employers in Clark County. Another sixteen employers participate voluntarily in the program. The 1999 statewide CTR survey indicates that the number of employees at participating worksites totaled 19,576 in 1993 and increased to 22,495 in 1999.

A list of potential strategies for implementation in Clark County is contained in Appendix A2 of the MTP; *"MTP Strategies: Projects to Preserve System Capacity, including Transportation Demand Management (TDM) Strategies"*. Monitoring of the effectiveness of TDM is necessary to provide input to the regional travel forecasting modeling process.

Table 5-1: Outline of Transportation Demand Management Strategies

Outline of Transportation Demand Management Strategies	
Type	**Description**
Education	Transport agencies, professionals and the public consider and understand TDM
TDM Marketing	Provide public information and encouragement programs
Commute Trip Reduction (CTR) Programs	Employee commute trip reduction programs
TMAs	Transportation Management Associations provide trip reduction services in a commercial or employment center
Manage Special Transport Activities	Manage special types of transport and special events for efficiency
Financial Planning	TDM competes against capacity expansion in terms of cost effectiveness
Transportation Allowance	Provide commuter with a transportation allowance rather than free parking
Transit	Maximize efficiency and effectiveness of transit service
Park and Ride	Parking at urban-fringe transit stops
Vanpool Programs	Promotion/organization of vanpools
Rideshare Programs	Rideshare promotion and matching
HOV Preference	Transit and rideshare lanes and other priority measures
Free Transit Zones	Free transit in commercial centers
Bicycle Improvements	Improved bicycle planning and facilities
Intermodal Bike	Bike lockers at transit stops, bike racks on transit vehicles
Telecommuting	Working at home to avoid commute trips
Alternative Work Hours	Flex time and alternative work weeks (such as 4 10-hour days)
Guaranteed Ride Home	Provide a limited number of free rides home for transit and rideshare commuters
Security	Address security concerns of rideshare, transit, cycle and pedestrian commuters
Parking Pricing	Charge users directly for parking. Charge by the hour or day rather than the month
Full Cost Pricing	Pricing reforms to encourage efficient transport
Road Pricing	Road tolls and congestion pricing
Mileage Fees	Per-mile charges for road use and/or distance-based vehicle insurance and

Outline of Transportation Demand Management Strategies	
Type	**Description**
	registration fees
Fuel Taxes	Increase federal and state fuel taxes
Vehicle Restrictions	Prohibit vehicle use in specific areas
Cash Out Parking	Provide employees who do not drive the cash equivalent of parking subsidies
Reduce Parking Requirements	Reduce parking requirements in zoning laws
Preferential Parking	Preferential parking for rideshare vehicles
Vehicle Rentals	Encourage carshare cooperatives and neighborhood vehicle rentals
Land use Reforms	Higher density, mixed use, growth management
Neotraditional Planning	Develop neighborhoods that encourage walking bicycling and transit use
Traffic Calming	Use strategies to reduce vehicle traffic speeds when appropriate
Monitor TDM	Perform surveys and other monitoring of TDM program effectiveness

The I-5 Partnership in 2002 concluded that Transportation Demand Management (TDM) and Transportation System Management (TSM) are essential strategies for improving our mobility. TDM is about reducing auto trips, shortening some, eliminating others and making our transportation system more efficient. Costs and effectiveness for the most promising TDM/TSM actions were not quantified as part of the I-5 Partnership due to the interrelated nature of the activities.

A new TDM strategy was implemented in the region in 2002. CarpoolMatchNW.org provides a secure, online matching service that allows people in Clark County, Portland and Salem to find others who are interested in sharing a ride to work. Its usage has increased, especially following the significant increase in gas prices experienced in 2005.

TRANSPORTATION SYSTEM MANAGEMENT (TSM)

TSM is also a strategy to maximize the efficiency of the existing transportation system. In 1993, a study to investigate the feasibility of various transportation system management strategies was conducted by ODOT. The ODOT Advanced Transportation Management System (ATMS) study was coordinated with WSDOT and included analysis of traffic surveillance, traffic control and traveler information needs in the I-5, I-205, SR-14 and SR-500 corridors. TSM measures include a wide range of strategies, most of which are ITS related to an intelligent transportation system. These include an incident response program, increased signage to alert motorists of travel conditions, ramp metering, improved communication means, Intelligent Vehicle/Highway System (IVHS) projects, and traffic signal interconnects to improve the efficiency of operation of the regional transportation system. Other TSM elements include minor capital upgrades such as channelization of traffic at intersections. The need for ramp metering on some of the interchange ramps, with greatest need in the I-5 corridor, has been identified in the WSDOT Systems Plan component of the *Statewide Multimodal Transportation Plan*.

INTELLIGENT TRANSPORTATION SYSTEM (ITS)

Like TSM, ITS is also part of the transportation tool kit to better manage the transportation system. The key difference is the 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.

The Vancouver Area Smart Trek program plan was initiated in 1999 and completed in January 2001. the ITS Plan was developed through a partnership of transportation agencies working together to plan, develop and implement an intelligent transportation system for the Clark County region to improve the operation, safety, and efficiency of the transportation system. ITS efforts are being coordinated with the Oregon Department of Transportation to ensure that ITS strategies throughout the bi-state region are integrated and complementary. The VAST Steering Committee, made up of the Southwest Washington Regional Transportation Council, the City of Vancouver, the Washington State Department of Transportation, C-TRAN, Clark County, the City of Camas, and The Oregon Department Of Transportation, meets regularly to facilitate the coordination, planning, funding, and deployment of ITS projects. This committee promotes the integration of ITS projects, the communications system, and the operation of ITS system elements. The VAST Program contains the following seven initiatives that, together, are intended to improve the efficiency of the transportation system:

Communications Infrastructure - Communications infrastructure is the backbone for all ITS deployment.

Traveler Information - Traveler information provides travelers with the ability to make an intelligent choice regarding mode, route and travel time through a wide range of distribution methods. This includes, but is not limited to websites, variable message signs, kiosks, television, radio, phone, and highway advisory radio. It uses both static and real-time information.

Incident Management - The freeway and arterial incident management plan covers operation of any function, device or system that is dedicated to the response to or monitoring of incidents on arterials and freeways. Early detection and a coordinated effort to respond to and clear roadway incidents can greatly reduce their impact on congestion and delay.

Transportation Management - The freeway and arterial transportation management plan covers the operation of all functions, devices and systems installed or developed for managing freeways and arterials. It includes the implementation of transportation management centers for the freeway and arterial network for the coordinated management of the transportation system.

Transit Priority - Public transit plays an important role in passenger transportation in the cities of Clark County. The C-TRAN bus system carried over 7 million passengers in 2004. Giving priority for buses at traffic signals can make transit more attractive to travelers by providing shorter and more consistent travel times. Signal prioritization can also help maximize limited transit service hours over the MTP planning period.

Transit Operation and Management - The two key components of transit operation and management are: (1) transit traveler information systems and (2) transit agency operations and management. Transit traveler information systems can deliver real-time bus arrival information to transit patrons

using changeable message signs, the internet and other communication devices. Transit operation and management tools use advanced technology to help transit providers increase efficiency and improve quality of service provided to the public.

The VAST Implementation Plan is a twenty-year project list developed around the initiatives above and is based on a regional ITS architecture, or blueprint, developed in cooperation with the ITS stakeholders. The ITS architecture provides agencies with a high level physical representation of the important interfaces and major components of the system to ensure an integrated system. It provides a high-level structure around the processes, data flows, and connections between the ITS elements.

The Implementation Plan is consistent with the architecture and contains a description of each project, its priority, estimated costs and benefits and its relationship with other projects in the plan. There is also an Implementation Schedule for the plan that lists in general short, medium, and long-term time frames. The short-term projects include interconnected and adaptive signal control, freeway cameras and roadway detection, variable message signs, a traveler information system, and a traffic management center. C-TRAN's VAST projects include automatic vehicle locators, automatic passenger counters and computer aided dispatch. For more information, refer to the VAST website at http://www.vastrek.org/travelinfo.htm

TRANSIT

Transit system improvements should be supported in the MTP. The transit transportation mode can support the land use goals established in the GMA Plans that envision denser developments in growth centers and in primary transportation 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 utilizing transit for their commute and other local trips.

The level of service provided by Clark County's transit system has been stabilized with passage of a funding proposition in September 2005. In addition to preserving existing service through 2011, this additional 0.2 percent sales tax will allow restoration of basic service to La Center, Ridgefield, and Yacolt as well as to Washington State University-Vancouver. However, the currently identified ten-year capital facilities program will exhaust capital reserves, curtailing C-TRAN's future capital development program.

While C-TRAN has achieved stability, the future will bring challenges as continuing growth creates demand for greater levels of transit service and operating costs increase. C-TRAN's Service Preservation Plan provides stable service levels and local match for identified capital projects through 2011. Over the period of this MTP, C-TRAN annual service hours are forecast to decrease from 263,440 in 2004 to 203,560 in 2030. This constitutes a 22.7 percent decrease in service hours.

In 2006, C-TRAN will be conducting a system re-design to respond to changes in transit facilities. It is expected that the new service alignment will yield efficiencies and optimization of transit service. Additionally, the application of service standards will help ensure that service is operating productively and efficiently, maximizing the return on transit investment. Both the new service alignment and adherence to service standards may partially offset the decrease in service hours over time. The work planned in 2006 will provide additional information that can be incorporated in the next update of the MTP.

Also during 2006, C-TRAN expects to finish its 20-Year Transit Development Plan, providing clearer long-term vision, funding, and policy direction for transit service and facility investments.

JOBS ACCESS/REVERSE COMMUTE (JARC) AND WELFARE TO WORK

The RTC Board of Directors adopted the Area-Wide Jobs Access and Reverse Commute (JARC) Plan in August 2002. JARC grant funding helps C-TRAN to provide transportation to workers in the high tech industrial area of east county.

Transportation is one of the main challenges facing people making the transition from welfare to work. In support of that transition, the U.S. Department of Transportation in cooperation in other federal social service agencies is encouraging communities to plan and implement seamless and integrated transportation systems and services that address the numerous welfare to work transportation challenges.

C-TRAN has taken the lead among transportation providers in coordinating with the region's social service providers, including Washington Department of Social and Health Services and the Clark County Human Services Council, to develop a regional welfare to work transportation plan and pursue program grant funding. Program elements of the welfare to work transportation plan may include: supporting and developing services such as connector services to mass transit; vanpools; sharing buses with elderly and youth programs; coordinated human services and public transit transportation resources; employer provided transportation; Geographic Information System (GIS) based ride matching; guaranteed ride home programs; and public-private transportation partnerships. Some of these programs currently exist, and the outcome of the welfare to work plan will encourage coordinating the services into a seamless system to address the transportation problems for the region's welfare recipients and other low income persons.

HIGH CAPACITY TRANSPORTATION (HCT)

The development of HCT is supported in the MTP to increase the transit carrying capacity of principal transit routes as a strategy to avoid having to provide increased highway capacity (refer to Transportation Management Areas (TMA's) and Congestion Management System (CMS) section below). In the MTP segments of the I-5 corridor, the I-205 corridor and the SR-500 corridor are designated as High Capacity Transportation (HCT) Corridors.

The history of Light Rail Transit (LRT) planning in the region includes study of high capacity transit options advanced in the South/North High Capacity Transit Corridor Study. A *Tier I Recommendation Report*, published by Metro, September 14, 1994, recommended that Light Rail Transit be developed in the I-5 corridor to Clark County with Phase I terminating in the vicinity of NE 99th Street and Phase II terminating in the vicinity of NE 134th Street. On July 19, 1994, Metro released the *South North Transit Corridor Study, Draft Briefing Document, Tier I Technical Summary Report* to support the South/North HCT Corridor study recommendations. In 1995 the Clark County voters voted no to funding LRT development. A Draft Environmental Impact Statement (DEIS) was prepared through a coordinated process led by Metro, Portland with a northern terminus in the vicinity of Clark College. The purpose of the DEIS was to identify and disclose anticipated impacts of a potential light rail line from the Clackamas Town Center area to Clark County compared to a "No-build" alternative. Alternatives and options were described in detail in the *South/North Corridor Project Draft Environmental Impact Statement* (FTA/Metro,

February 1998). FTA/Metro issued a South/North Corridor Project Supplemental Draft Environmental Impact Statement in April 1999 to address an LRT line along Interstate Avenue with a terminus at the Expo Center in Oregon. The Interstate MAX Yellow Line, opened in 2004. The I-5 Partnership recommended the development of an LRT Loop within Clark County to provide for internal Clark County trips as well as cross-river trips. The Columbia River Crossing project is now underway which will look at a range of transportation alternatives for cross-Columbia river travel (see MTP Strategic Plan, MTP Appendix B). A proposed HCT Corridors Study, proposed to begin in 2006, would address High Capacity Transit within Clark County (see MTP Strategic Plan, MTP Appendix B).

COMMUTER RAIL/RAIL CAPACITY ISSUES

RTC completed the 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 Study concluded that, in a five year horizon, moderate levels of commuter rail service could be implemented between Vancouver and Portland with minor rail capacity improvements. By 2013, however, any level of commuter rail service would require a dedicated passenger track to accommodate the commuter service and the expected increases in freight and intercity passenger trains. The findings of this feasibility study indicate that a commuter rail system should not be pursued unless it is determined that a major rail investment necessary to support future intercity passenger and freight rail growth in the corridor is to be made. This rail corridor is severely constrained in terms of how much growth it can support without major capital investment. The commuter rail operations added a relatively small number of trips to the system but enough to trigger the requirement for a dedicated passenger alignment. Current plans for intercity passenger and freight growth could trigger the need for major capacity improvements before the 2018 horizon year. The results of this Study have created the awareness of the need to initiate regional discussion about long-term rail capacity issues affecting freight and passenger needs. The capacity constraints in this corridor need to be discussed further, not only in the context of the commuter rail system concept, but also as they relate to the rapid growth of rail freight traffic in the corridor and plans for greatly increased intercity passenger service.

In 2002 the question of commuter rail was again revisited as part of the I-5 Partnership. Findings included 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 System** 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 CMS acts 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 SYSTEM (CMS)

The Congestion Management System (CMS) for Clark County was developed and operational by the deadline of October 1, 1995. The CMS identifies projects and programs for consideration in the metropolitan planning process. In November 1993, RTC released the *Intermodal Surface Transportation Efficiency Act, Transportation Management Systems for: Traffic Congestion, Public Transportation Facilities and Equipment, Intermodal Transportation Facilities and System, Phase I, Final Report.* In October 1994, the *CMS Phase I Compliance Statement and Work Plan* was issued. Elements of the CMS include the identified CMS network performance measures and data monitoring plan as described in the two reports mentioned above. The CMS network is a sub-set of the regional transportation system; now a set of 30 transportation corridors to be monitored and evaluated on an ongoing basis as part of the CMS. The *RTC Board adopted the Southwest Washington ISTEA Transportation Management Systems, Phase II Final Report, which contains the CMS,* on May 2, 1995 (RTC Board Resolution 05-95-14).

The CMS is intended to be an evaluation tool for monitoring traffic congestion and for identifying improvement strategies. The CMS allows for the systematic monitoring of performance, identification of deficiencies, and the evaluation and recommendation of strategies. The evaluation becomes a part of MTP development. Performance of the CMS network is monitored on an annual basis as new traffic volume data is available.

The CMS identifies a set of strategies that address regional congestion problems for consideration within the MTP process. As part of this process, the CMS strategies are weighed against other MTP goals and objectives. The recommendation of a strategy within the CMS to manage traffic congestion does not mean automatic implementation and incorporation into the MTP. It is recognized that selecting project priorities involves the consideration of many factors, of which congestion relief is just one. See Chapter 6 of this MTP for more details of RTC's ongoing Congestion Management Monitoring Program.

ENVIRONMENTAL ISSUES

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 work flex-time, 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.

Historically, the Vancouver Air Quality Maintenance Area (AQMA) has been classified as non-attainment for both ozone (O_3) and carbon monoxide (CO) pollutants. As a result, transportation planning and project programming cannot occur without consideration for air quality impacts. On March 15, 1991, the Governor of Washington State designated the urban area of the Vancouver portion of the Portland-Vancouver Interstate Air Quality Maintenance Area as a marginal non-attainment area for ozone (O_3) and a moderate carbon monoxide (CO) non-attainment area. The action was taken in accordance with Section 107 of the Federal Clean Air Act as amended in 1990. Subsequently, the Southwest Clean Air Agency (SWCAA) developed, as supplements to the State Implementation Plan, two Maintenance Plans; 1) for Carbon Monoxide (CO), and 2) for Ozone (O_3). The Environmental Protection Agency (EPA) approved the CO Maintenance Plan in October 1996 and the Ozone Maintenance Plan in April 1997. The RTC Board of Directors endorsed the mobile source strategies included in the Maintenance Plans in 1996 (Resolution 02-96-04).

Currently, under the new 8-hour federal Ozone standard, the Vancouver/Portland Air Quality Maintenance Area (AQMA) has been reclassified from “maintenance” to “unclassifiable/attainment” for Ozone and no longer needs to demonstrate air quality conformity for Ozone. The Vancouver AQMA is currently designated as a CO maintenance area.

As described in Appendix A, RTC consults 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 and uses the regional travel model data to develop mobile source emissions inventories. In the Maintenance Plans an emissions “budget” is established. The budget has allocated allowable emissions from mobile, area, and point sources. In order to demonstrate that emissions stay within the budget during the maintenance period, the Maintenance Plan identifies emissions strategies for each of the three air pollutant sources (mobile, area and point). The Maintenance Plan does not include mobile source Transportation Control Measures (TCMs) for this Air Quality Maintenance Area but if the emissions budget is exceeded, additional contingency measures must be implemented to reduce mobile emissions.

Transportation strategies identified in the SIP for the Vancouver Air Quality Maintenance Area include:

- transit service
- an emissions testing (I/M) program for the area of Clark County within the Air Quality Maintenance Area (AQMA).

These strategies are implemented in efforts to maintain National Ambient Air Quality Standards (NAAQS).

Before they are adopted, both the MTP and TIP undergo air quality conformity analysis to demonstrate that they are within the mobile emissions budget contained in the Maintenance Plan for Carbon Monoxide. Projects can only be programmed in the TIP if they come from a conforming *MTP*. A determination of conformity of the *Metropolitan Transportation Plan* with the federal Clean Air Act, as amended in 1990, and the Washington Clean Air Act can be found in Appendix A of this document. Conformity with the Clean Air Act is also addressed in the metropolitan Transportation Improvement Program for the Clark County region. At the project level, non-exempt transportation projects have to undergo conformity analysis to show they meet federal and state air quality standards before completion of the design phase.

WATER QUALITY

Transportation projects must be mindful of 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 certain 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.

MTP REGIONAL SYSTEM IMPROVEMENTS AND PRIORITIZATION PROCESS

Federal and state legislation, together with citizen input, has prompted the identification and implementation of alternative transportation solutions. Alternative solutions provide a way to avoid increasing capacity of the highway system through road widening projects. The MTP provides for strategies and solutions to meet regional travel demand and to develop a balanced regional transportation system over the 20+ -year planning period.

Figure 5-1 is a map showing identified capacity improvements on the regional transportation system. The map shows the location of highway capacity expansion projects identified needed to address safety and/or level of service issues. Appendix A provides a list of needed improvements, both on and off the regional transportation system, which have been assumed in the regional travel forecasting model process for MTP development and its accompanying air quality conformity analysis. The list focuses on system expansion projects for it is these that are most readily incorporated into the regional travel forecasting model and their impacts measured. The MTP Appendix also outlines the wide array of transportation system 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 encourage use of alternative transportation modes to the Single Occupant Vehicle.

Following adoption of the MTP for Clark County in December 1997, a prioritization process was initiated as a result of concerns that funding for transportation "mobility" improvements is limited compared with growing needs. With limited funding availability, it is prudent to reach regional consensus on the highest priorities. The 1997 process was described in the RTC technical report, *Metropolitan Transportation Plan for Clark County, Prioritization of MTP Projects (RTC, October, 1998. RTC Board Resolution 10-98-16).* The prioritization process took a strategic systems approach to determine transportation needs. Steps in the process for prioritization of regional

transportation projects include: 1) Development of a shared understanding of transportation system needs through review of existing and future transportation system performance, 2) Review major transportation policies governing regional transportation system development, 3) Agree on key policy principles for project prioritization, 4) Establish criteria for project evaluation, 5) Initial evaluation of projects based on criteria (existing growth management land use plans, growth forecasts and results from the regional travel forecasting model are used as the basis for needs evaluation), 6) Re-evaluate projects (based on iterative performance analysis), 7) Consider project staging, finance and priority level, and 8) Recommendation of MTP regional priority transportation projects. A prioritization process helps the region to make most effective use of limited transportation funding to meet transportation system improvement needs.

In December 2001 the RTC Board once again reviewed regional priorities. "Mobility" type improvements were once more the prime focus of the prioritization process as these are the projects that the region finds increasingly difficult to fund after maintenance, preservation and safety needs are addressed. In a rapidly growing, urbanizing region such as Clark County there is need for significant investment in "mobility" projects to complete the arterial street system and to improve the design standard of facilities to cope with urban transportation needs. It is recognized that Transportation System Management and Transportation Demand Management strategies can contribute toward system capacity preservation and were also considered in the 2001 prioritization process. It was acknowledged that all of the projects evaluated in the MTP prioritization process are needed within the horizon of the Plan to attain reasonable transportation system performance.

The following key policy issues again emerged in 2001 as the most important to emphasize in terms of project prioritization: 1) Economic Development, 2) Land Use and Transportation System Performance, 3) Transportation Demand Management (TDM), 4) Funding and 5) Bi-state Transportation Strategy. Economic development is the prime criteria for project prioritization.

The project prioritization process is dynamic and project priorities are reviewed periodically to consider emerging trends and results and recommendations from ongoing transportation studies. It is anticipated that an update to the regional prioritization of corridors and projects will be addressed in the next MTP update.

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

BI-STATE TRANSPORTATION

BI-STATE COORDINATION COMMITTEE

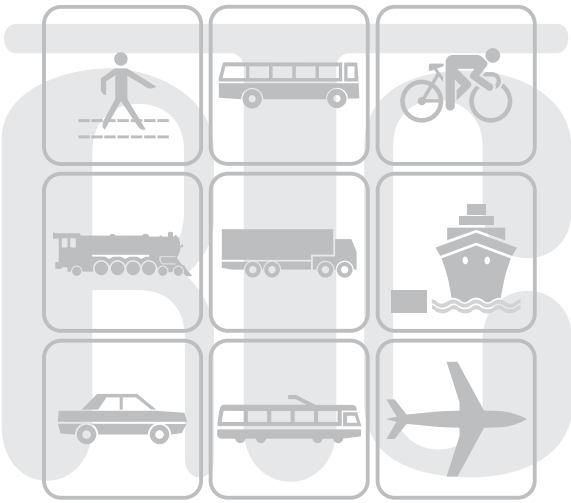
The Bi-State Transportation Committee was established in 1999 to ensure that bi-state transportation issues are addressed. This Committee was reconstituted in 2004 to expand its scope to include both transportation and land use according to the Bi-State Coordination Charter. The Committee is now known as the Bi-State Coordination Committee. The Committee's discussions and recommendations continue to be advisory to the RTC, the Joint Policy Advisory Committee on Transportation (JPACT), and Metro 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 Portland-Vancouver I-5 Transportation and Trade Partnership study concluded in 2002 with key policy recommendations for cross-Columbia river travel in the I-5 corridor. The Columbia River Crossing project (CRC) is now underway which evolved from the previous I-5 Partnership. The CRC is aimed at improving the mobility, reliability, and accessibility for automobile, freight, transit, bicycle, and pedestrian users of the I-5 corridor from State Route 500 in Vancouver to approximately Columbia Boulevard in Portland. The CRC's process will include examination of bridge capacity and analysis of a range of modal options (see MTP Appendix B).

Figure 5-1: MTP Regional System Improvements



CHAPTER 6

PERFORMANCE MONITORING

The transportation planning process requires that monitoring of system performance take place. Several elements of system monitoring activities are described below.

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. The performance measures were reported on in Chapter 3 (Tables 3-12 through 3-15).

CONGESTION MANAGEMENT SYSTEM

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 system; a set that is now comprised of 30 transportation corridors to be monitored and evaluated on an ongoing basis as part of the CMS.

In June 2005, the RTC Board adopted the *2004 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 2004 Congestion Monitoring Report is the sixth year for publication of the Report and continues the collection and reporting of baseline data. As part of the ongoing monitoring process, the Corridor Congestion Ratio Index (CCRI) numbers were updated to reflect 2004 traffic counts collected as part of the Congestion Management Monitoring program. The following table (Table 6-1) reports Corridor Congestion Index results from the 2004 counts.

Table 6-1: Corridor Congestion Index Report

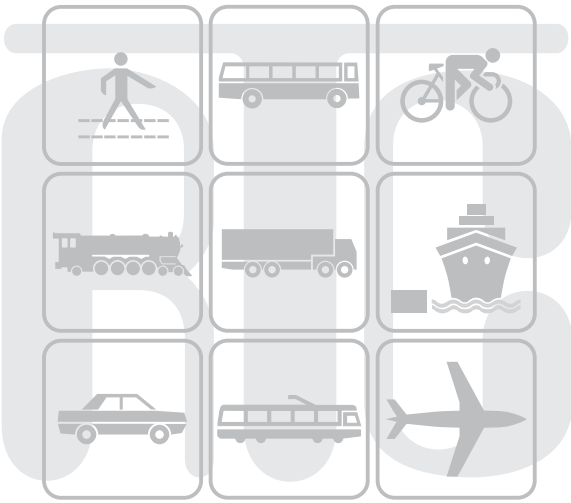
CORRIDOR CONGESTION INDEX IN A.M. AND P.M. PEAK (2004 REPORT)					
Corridor Name	**Facility Name**	**Start Point**	**End Point**	**A.M. Corridor Congestion Index (CCI)**	**P.M. Corridor Congestion Index (CCI)**
Shaded Cells = Corridor Congestion 7.0 or Greater					
I-5 - North	I-5	County Line	I-205 Junction	0.45	0.55
I-5 - Central	I-5	I-205	Main St	**0.75**	0.69
I-5 - Central	Hwy 99	134th St	Main St	0.35	0.57
I-5 - Central	Hazel Dell	117th St	Main St	0.47	0.67
I-5 - South	I-5	Main St	State Line (S)	**0.93**	**0.96**
I-5 - South	Main St	I-5	Fourth Plain Blvd	**0.85**	0.50
I-205 - Central	I-205	I-5	SR-500/4th Plain	**0.77**	**0.80**
I-205 - South	I-205	SR-500/4th Plain	State Line (S)	**0.97**	**0.97**
I-205 - South	112/Chkalov/Gher	SR-500	Mill Plain	0.51	0.69
Grand/St. Johns	St. Johns/Ft. Vanc	NE 72nd Ave	Mill Plain	0.56	0.53
Andresen Rd - North	Andresen/ 72nd	119th Street	SR-500	0.60	**0.78**
Andresen Rd - South	Andresen Rd	SR-500	Mill Plain	0.51	0.68
SR-503 - South	SR-503	119th Street	Fourth Plain	**0.78**	**0.84**
SR-503 - North	SR-503	SR-502	119th Street	0.66	**0.72**
136th Ave	136th/137th/138th Av.	Padden Parkway	Mill Plain	0.60	0.68
162nd/164th - North	162nd Ave	Ward Road	Mill Plain	0.65	**0.88**
162nd/164th - South	164th Ave	Mill Plain	SR-14	0.65	**0.71**
SR-14 - West	SR-14	I-5	I-205	**0.75**	**0.82**
SR-14 - Central	SR-14	I-205	164th Ave	**1.03**	**1.04**
SR-14 - East	SR-14	164th Ave	County Line (E)	**0.70**	**0.78**
Mill Plain - West	Mill Plain Blvd	I-5	Fourth Plain	0.53	0.60
Mill Plain - Central	Mill Plain Blvd	I-5	I-205	0.40	0.58
Mill Plain - East	Mill Plain Blvd	I-205	164th Ave	0.63	**0.81**
Fourth Plain	Fourth Plain	I-5	NW 26th Av	0.45	0.58
Fourth Plain	Fourth Plain Blvd	I-5	Andresen	0.33	0.57
Fourth Plain	Fourth Plain Blvd	Andresen	SR-503	0.42	0.65
SR-500 - West	SR-500	I-5	Andresen	**0.78**	**0.82**
SR-500 - Central	SR-500	Andresen Rd	SR-503	**0.70**	**0.77**
SR-500 - East	SR-500	SR-503	162nd Ave	**0.78**	**0.95**
78/76/Padden Pkwy	78th/76th	Lakeshore Av.	SR-503	0.42	0.53
78/76/Padden Pkwy	Padden Pkwy	78th St.	Ward Road	0.59	0.68
99th Street	99th St.	Lakeshore Av.	St John's Rd.	0.48	0.64
28th/18th Street	Burton/28th	Andresen Rd	164th Ave	**0.87**	**0.99**
28th/18th Street	18th Ave	112th Ave	164th Ave	0.65	**0.88**
134th/139th Street	134th/139th	NW 36th Ave	50th Ave	0.55	**0.71**
SR-502/219th St	SR-502	I-5/179th St	SR-503	0.64	**0.79**
SR-501	SR-501	I-5	9th Street	0.41	0.43
La Center Road	La Center Road	I-5	E. Fork Lewis R.	0.62	0.62

AIR QUALITY MONITORING

Monitoring of air quality standards is an ongoing activity in the Air Quality Maintenance Area (AQMA) for the region. Air quality conformity has a direct relationship to the transportation system and its performance because mobile source emissions are a large contributor to air pollution. Air quality conformity analysis results are reported in MTP Appendix A.

COMMUTE TRIP REDUCTION (CTR) LAW IMPLEMENTATION

All jurisdictions in Clark County with affected employers of over 100 employees who meet the set criteria have adopted CTR ordinances and employers have established commute trip reduction programs. Monitoring of the success of these programs is carried out to ensure that the goals are being met or are being actively worked toward. Washington law established a goal of affected employers achieving 15% work trip reduction by the year 1995 or 2 years after program implementation, 20% reduction by the year 1997 or 4 years after program implementation, 25% reduction by the year 1999 or 6 years after program implementation and 35% by 2005 or 12 years after program implementation. It is anticipated that there will be a review of the CTR law in the 2006 Washington legislative session.



CHAPTER 7

PLAN DEVELOPMENT AND IMPLEMENTATION

PUBLIC INVOLVEMENT IN METROPOLITAN TRANSPORTATION PLANNING PROCESS

RTC has an adopted public involvement program, outlining the public involvement efforts in the development of regional transportation plans and programs. Copies of the public involvement program are available at the Fort Vancouver Library, at RTC offices and on RTC's web site for public to review. The Metropolitan Transportation Plan and Metropolitan Transportation Improvement Program updates are considered at regular meetings of the RTC Board of Directors. All RTC Board meetings and technical committee meetings are open to the public. Meeting notices for the RTC Board of Directors are published in the local newspapers. At each month's meeting of the RTC Board, there is time set aside for public comment on regional transportation planning issues including MTP and Metropolitan Transportation Improvement Program (MTIP) development.

Public involvement efforts build from those carried out at the local level in development of local plans and programming of transportation projects. Since the last MTP update in December 2002 and amendment in December 2003, there have been numerous public meetings regarding regional transportation issues. These public meetings, hosted by RTC member agencies and jurisdictions, include regularly scheduled C-TRAN Board meetings, meetings hosted by C-TRAN regarding changes to transit service and fares, Clark County Transportation Improvement Program Involvement Team (TIPIT), public meetings held as part of the Clark County Comprehensive Growth Management planning process, four Walkable Community Workshops held in May 2004 that were organized by RTC and hosted by the City of Ridgefield, the City of Vancouver, Clark County and C-TRAN, the Fourth Plain Traffic Safety Corridor outreach efforts, the 18th Street Corridor Study Citizen Resource Team, open houses on the Section 30 Sub-area Plan, and WSDOT hosted outreach meetings focused on development of state "nickel package" projects, the SR-14 corridor planning study and on traffic operations and preservation projects. In addition, there were Transportation Priorities Project (TPP) outreach events hosted by Identity Clark County, a freight transportation workshop hosted by the Greater Vancouver Chamber of Commerce, RTC representation at Leadership Clark County transportation subject sessions, and RTCs participation on the annual Columbian newspaper's Economic Forecast panel. Public meetings for the I-5 Columbia River Crossing project (CRC) were held in 2005 and will continue to be held for the duration of the project. A full listing of public outreach efforts related to the regional transportation planning program is included in the Unified Planning Work Program's Annual Report published by RTC in late summer each year.

Through the coordinated efforts of RTC and local jurisdictions a public information booth on regional transportation issues is set up each year at the Clark County Fair. The Fair's attendance exceeds 220,000 people annually. RTC and jurisdictions' staff at the transportation booth solicit comments from Fair attendees and the public can fill in survey forms about the region's transportation system. Staff manned the booth to answer questions from the public and to receive comments on the MTIP and the MTP. RTC and local jurisdictions also coordinate outreach events, usually held annually, at the Westfield Shoppingtown, Vancouver which is the regional mall for the Clark County region. RTC staff also make presentations to neighborhood associations and civic groups to provide information on regional transportation issues and to gather feedback from citizens.

Transportation issues, studies, plans and programs are outlined and reported on at RTC's web site at http://www.rtc.wa.gov. 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 the Board's consideration and adoption.

METROPOLITAN TRANSPORTATION PLANNING PROGRAM: REQUIRED PLANNING FACTORS IMPLEMENTATION

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 in Table 7-1 below

Table 7-1: RTC's Implementation of Planning Factors, Status Report

METROPOLITAN PLANNING PROGRAM SOUTHWEST WASHINGTON REGIONAL TRANSPORTATION COUNCIL (RTC) STATUS REPORT ON THE FEDERALLY-REQUIRED PLANNING FACTORS (OCT. 2005)		
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.		
	FACTORS	**HOW RTC IMPLEMENTS THE FACTORS**
1	Support the **economic vitality** of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency	**Competitiveness, Productivity, Efficiency** • Metropolitan Transportation Plan (MTP) Project Priorities: Economic development is the prime policy criteria for prioritizing MTP transportation projects (MTP Prioritization Process (1998), updated December 2001). • Interstate Travel: In 1998, the Washington State Department of Transportation (WSDOT) partnered with the Oregon Department of Transportation (ODOT) and other local jurisdictions and agencies in Washington and Oregon, including RTC, to plan for and implement improvements along the **I-5 corridor** from I-84 in Oregon to I-205 in Washington. Two studies, the Portland/Vancouver I-5 Trade Corridor Freight Feasibility and Needs Assessment Study, completed in 2000, and the Portland/Vancouver I-5 Transportation and Trade Partnership Study, completed in 2002, included a variety of corridor-wide improvement and traffic management recommendations. Planning for the I-5 corridor continues with the Columbia River Corridor (CRC) project. The **I-205 corridor** in Clark County is addressed in the I-205 Corridor, Access Point Decision Report (2001). • Access to Ports/Industry: Mill Plain Extension for Port of Vancouver access was completed in 2000. There have been recent improvements to Fruit Valley Road and there are plans to construct NW 26th Avenue. The Port of Vancouver is currently reviewing potential alignments to improve rail access to the Port as part of the Port of Vancouver's Economic Development & Conservation Plan. SR-14/Grand

METROPOLITAN PLANNING PROGRAM
SOUTHWEST WASHINGTON REGIONAL TRANSPORTATION COUNCIL (RTC)
STATUS REPORT ON THE FEDERALLY-REQUIRED PLANNING FACTORS (OCT. 2005)

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.

	FACTORS	HOW RTC IMPLEMENTS THE FACTORS
		interchange project (completed 1996) improved access to Columbia Shores Business Park. MTP recommends SR-14 improvements to improve access to the Port of Camas/Washougal and improvements at the I-5/Ridgefield/269th Street interchange. • Airports: Clark County is served by Portland International Airport. The small, general aviation airfields in the County are being encroached upon by urban development. Efforts to locate a new airport in the late 1980's resulted in Pioneer II site selection but public criticism halted any project development. Clark County Airports Advisory Task Force convened in 1997 to further address need for airfields in Clark County. Evergreen Airport (off Mill Plain) is closing. • Intermodal transportation facilities: freight, transit centers, park & rides. • Freight distribution: A 1994 freight study located major freight generators in Clark County. The Congestion Management Monitoring system monitors truck percentages on regionally significant corridors in Clark County. The Regional Freight Committee (Portland-Vancouver region) meets to address freight issues including planning for the regional freight data collection study. • Rail: BNSF lines run through Clark County (north to Seattle, south to Portland and east to Spokane) to serve increasing rail freight movement. RTC worked with BNSF on Amtrak rail station planning and on Commuter Rail Feasibility Study (May 1999). The Vancouver Rail Project, to improve rail through the Vancouver Yard and to cross the Yard by highway bridge at 39th Street, was funded by the 2002 Washington Legislature's "Nickel Package". • Ship and Barge: river transportation to Port of Vancouver. Use of barges includes use for transportation of garbage from Clark County to landfill in eastern Oregon. • Pedestrian and Bicycle: RTC hosted four Walkable Community Workshops in 2004. The workshops emphasized the contribution a quality pedestrian and bicycle environment can make to the area's economy, quality of life and health. **Recreational Travel and Tourism** • The Fort Vancouver National Historic Site, Officers' Row and Pearson Airfield are prime tourist sites near downtown Vancouver. Clark County is also the gateway to the Columbia River Gorge via SR-14. SR-503 provides access to the Mount St Helens National Scenic Area.

METROPOLITAN PLANNING PROGRAM
SOUTHWEST WASHINGTON REGIONAL TRANSPORTATION COUNCIL (RTC)
STATUS REPORT ON THE FEDERALLY-REQUIRED PLANNING FACTORS (OCT. 2005)

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.

	FACTORS	HOW RTC IMPLEMENTS THE FACTORS
2	Increase the **safety** of the transportation system for motorized and non-motorized users	**Safety** • Safety is called out as a priority issue in the MTP. Assessment of highway system safety needs is carried out by WSDOT for interstate and state facilities and by the local jurisdictions for local arterials. RTC uses the information to help determine funding priorities as part of project programming. Washington State Department of Transportation (WSDOT) uses safety as a significant factor in benefit/cost analysis to determine funding priorities.
3	Increase the **security** of the transportation system	**Security** • C-TRAN devotes a portion of its budget to transit security measures including surveillance cameras on buses and contract security personnel. • Transit security measures are described in the MTP, Chapter 3.
4	Increase the **accessibility** and **mobility** options available to **people** and for **freight**;	**Overall** • Vehicle Miles Traveled, Vehicle Hours of Delay and other measures of performance of the regional transportation system are reported in the MTP with each MTP update. • The Metropolitan Transportation Improvement Program (MTIP) contains a listing of all regionally significant transportation projects to be undertaken in local jurisdictions in the shorter term. **Congestion Management** • Congestion is addressed in the adopted Congestion Management System (CMS) and subsequent annual Congestion Management Monitoring reports for the Clark County region. Monitoring of system performance and CMS strategies are incorporated into the MTP. Evaluation of CMS corridors is conducted annually with updated traffic counts and transportation system use data. **Intelligent Transportation System (ITS)** • Vancouver Area Smart Trek (VAST) deployment plan. Implementation of ITS solutions and Transportation System Management (TSM) strategies to better manage the existing transportation system. **Transit Service** • C-TRAN publishes the *Transit Development Plan* to outline plans for the future of the transit system within the next six years. • C-TRAN coordinated initiated a 20-year planning process for the region's transit system in 2003/04. A C-TRAN 20-Year Transit Development Plan is anticipated in 2006. • RTC coordinates with C-TRAN on ridership surveys and on travel forecasting. **Transportation Enhancements** • Prioritization of enhancement projects is a collaborative process by Regional Transportation Advisory Committee (RTAC) representatives. • Projects are ranked according to criteria established by RTAC members.

METROPOLITAN PLANNING PROGRAM
SOUTHWEST WASHINGTON REGIONAL TRANSPORTATION COUNCIL (RTC)
STATUS REPORT ON THE FEDERALLY-REQUIRED PLANNING FACTORS (OCT. 2005)

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.

	FACTORS	HOW RTC IMPLEMENTS THE FACTORS
		• Enhancement projects are incorporated into MTP and MTIP. • For bike and pedestrian projects, guidance for system development is provided by *Clark County's Trails and Bikeway System Plan* (Dec. 1992) and by the transportation elements of local Comprehensive Growth Management plans. • Walkable Community Workshops were hosted by RTC in 2004. **Movement of Freight** • WSDOT Freight and Goods Transportation System (FGTS). • Port access proposed improvements: SR-14 Camas/Washougal area, I-5/Ridgefield Junction. • Lewis and Clark Railroad.
5	Protect and enhance the **environment**, promote **energy conservation**, and improve **quality of life**	**Environment** • The natural, built and human environments are considered at the earliest opportunity in the transportation planning process. RTC relies on the inventory of resource lands and critical areas undertaken by Clark County as part of the Comprehensive Plan for the County. RTC carries out air quality conformity analysis for the MTP, the MTIP and for local, regionally significant transportation projects. **Energy Conservation** • Commute Trip Reduction program. • Analysis of Vehicle Miles Traveled. • Jobs/housing balance. • Planning and construction of facilities for non-motorized modes (consistent with *Clark County Trails & Bikeway System Plan*, Dec. 1992). **Quality of Life (Land Use and Transportation Linkage)** • The 50-year Community Framework Plan for Clark County (March 1993) and the 20-year Comprehensive Growth Management Plan for Clark County (December 1994) specifically link policies and planning for land use and transportation. • The MTP and Comprehensive plans are consistent.
6	Enhance the integration and **connectivity** of the transportation system, across and between modes, for people and freight	• Hierarchical functional classification system for Clark County roads. Clark County maintains an "Arterial Road Atlas" that shows desired classifications and design standards for arterials within the County. • SR-14 to east (RTC's planning area includes Skamania and Klickitat counties to the east). • I-5 to north (information and formal coordination with Southwest Washington RTPO to north). • I-5 south (includes coordination with Metro, ODOT, TriMet and Oregon local jurisdictions on bi-state issues).

METROPOLITAN PLANNING PROGRAM SOUTHWEST WASHINGTON REGIONAL TRANSPORTATION COUNCIL (RTC) STATUS REPORT ON THE FEDERALLY-REQUIRED PLANNING FACTORS (OCT. 2005)		
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.		
	FACTORS	**HOW RTC IMPLEMENTS THE FACTORS**
7	Promote efficient **system management** and **operation**	• Congestion Management System (adopted by RTC, May 1995) and annual Congestion Management Monitoring report process. • Vancouver Area Smart Trek (VAST) implementation includes intelligent transportation system implementation, fiber network for communications, signal timing and signal coordination projects, ramp metering, coordination with Oregon on a Regional Advanced Traveler Information System.
8	Emphasize the **preservation** of the existing transportation system	• Preservation receives high priority in policies and programming of projects through the Washington's Transportation Plan (WTP), WSDOT Highway Systems Plan, local Comprehensive Growth Management Plans, the Metropolitan Transportation Plan (MTP), and the Metropolitan Transportation Improvement Program (MTIP). • As road improvements occur, sidewalks and bike lanes are added. • Cost to maintain pavement and bridges is addressed in the MTP. • I-5 bridge (life expectancy, maintenance needs). • Bridge needs are documented in the MTP.

MTP IMPLEMENTATION

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 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. However, before the MTP can be prepared under the new update cycle, the Plan 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 participation requirements.

Metropolitan Planning Organizations, such as RTC, have until July 1, 2007, to comply with the revised 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 with public outreach and subject to findings of air quality conformity and fiscal constraint. A summary of Metropolitan Transportation Plan for Clark County adoption, update and amendment actions is provided in Table 7-2.

The 1998 MTP amendment focused on changes to Chapter 4 (Financial Plan) and Chapter 5 (System Improvement and Strategy Plan). The language in the Chapter 4 Financial Plan was amended to make clear that the Plan is fiscally constrained. Only projects from a fiscally constrained Plan can be included in the air quality conformity analysis. In turn, only projects from air quality conforming plans can be advanced for programming of funds in the Transportation Improvement Program. The description of funding programs in Chapter 4 was also updated to reflect the new funding levels in the federal Transportation Equity Act for the 21st Century (TEA-21) and recent funding history for state Transportation Improvement Board (TIB) programs. Chapter 5 was amended to include description and recommendations of the MTP Prioritization Process carried out during 1998. The 1998 amendments did not change the identified projects listed in Appendix A of the MTP. Therefore the air quality conformity analysis carried out on the December 1997 version of the MTP (documented in Appendix A of the Plan) remained valid.

A minor amendment in April, 1999 incorporated plans for a new interchange at I-5 and NE 219th Street into the MTP. The 1999 MTP update addressed the need to keep the MTP up-to-date with developments in the planning of transportation facilities and services. The focus of the 1999 MTP update was to extend the horizon year of the Plan to 2020, thereby meeting federal requirements to have a Plan with at least a twenty year horizon. Demographic data was updated to the 2020 horizon year, a revised regional travel forecasting model prepared, transportation deficiencies considered, the list of transportation needs and projects revised, the financial plan reviewed and updated and an update to the air quality conformity analysis prepared.

The issue of cross-Columbia travel continues to be the subject of bi-state transportation efforts. The feasibility and utility of High Occupancy Vehicle (HOV) treatments in Clark County was studied during 1998 which culminated in the publication of "Clark County High Occupancy Vehicle Study" (December, 1998). The 1998 Study defined HOV policies and objectives, identified HOV need and benefits and identified the location of possible HOV corridors and/or facilities. A study of the operational feasibility of an I-5 HOV lane was carried out in 2000. A report on commuter rail as a cross-river travel option was published in May, 1999. A Bi-State Transportation Committee was convened in 2000 to address transportation issues of bi-state concern and has continued to meet throughout 2001 and 2002.

The 2002 MTP update provided a new base year of 2000, incorporated newly-available 2000 Census data, extended the horizon year of the MTP to 2023, included recommendations from recently completed corridor studies of I-5 North and I-205, and included recommendations of the I-5 Partnership in the new Strategic MTP. The Plan update included a revised list of proposed transportation improvements anticipated within the next twenty years and an update to the air quality conformity analysis. The 2003 MTP amendment added the Port of Ridgefield's Rail Overpass

Project and made minor amendment to the Financial Plan element to acknowledge the State's "nickel projects". The MTP's Strategic Plan that provides for the inclusion of "illustrative projects" and/or planning concepts not fully developed and not ready for inclusion in the fiscally-constrained MTP, was also amended to focus description on need and purpose for transportation improvements and to update the status of the Strategic Plan elements. A description of the Federal Transit Administration's New Start Alternatives Analysis (AA) process for high capacity transit in the I-5/I-205/SR-500 loop was provided.

The 2005 MTP update includes extending the horizon year of the Plan to 2030 together with accompanying demographic forecasts. It also includes update to the Plan Goals and Policies, update to the Designated Regional Transportation System, to the Financial Plan and a major update to the list of projects identified in the MTP to include a large number of projects needed to provide internal circulation improvements for the rapidly growing smaller cities of Clark County.

Results and recommendations from transportation studies underway will be incorporated into future MTP updates or amendments. The next major update to the MTP is anticipated in coordination with update to the Comprehensive Growth Management Plan for Clark County, now underway, in late 2006. In 2006, revised Urban Growth Areas, land uses and demographic forecasts will be incorporated into the MTP coming from the local comprehensive planning process. A revised federal functional classification system will also be incorporated that will reflect the updated Comprehensive Growth Management Plans of local jurisdictions.

Table 7-2: Chronology of MTP Update and Amendment, 1994 to 2005

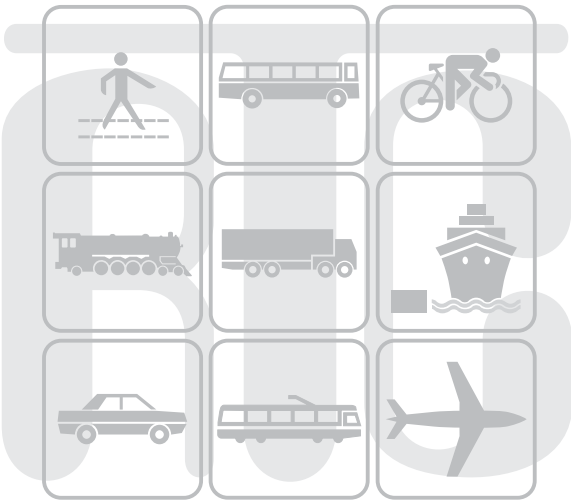
Chronology of MTP Update and Amendment, 1994 to 2005		
Date	**Action**	**Notes** *Employment is Bureau of Labor Statistics (BLS) equivalent or 'covered' employment*
December 1994	MTP Adoption RTC Board Resolution 12-94-30	This was the first MTP adopted following formation of RTC. The 1994 MTP met all requirements of the federal Intermodal Surface Transportation Efficiency Act passed in 1991. The Plan was fiscally constrained and met air quality standards. **Year** **Population** **Households** **Employment** Base 1990 238,053 88,438 80,100 Forecast 2015 380,425 152,170 138,300
1995	None	RTC staff reviewed the 1994 MTP and listed elements to change and enhance at the next MTP update. An RTAC memo, dated October 31, 1995, outlined the changes and enhancements identified for the next update.
December 1996	MTP Update RTC Board Resolution 12-96-22	The update extended the horizon year from 2015 to 2017. Land use inputs consistent with the *Clark County 20 Year Comprehensive Growth Management Plan* and forecasts consistent with the population forecast supplied by Washington Office of Financial Management (OFM) were used in MTP process. Also updated was the designated regional transportation system, transportation system performance measures and list of identified transportation projects for the 20-year period. **Year** **Population** **Households** **Employment** Base 1990 238,053 88,438 80,100 Forecast 2017 437,167 171,842 154,500
December 1997	MTP Amendment RTC Board Resolution 12-97-23	The amended MTP included changes to the designated regional transportation system, transportation system performance measures and list of identified transportation projects for the 20-year period. **Year** **Population** **Households** **Employment** Base 1990 238,053 88,438 80,100 Forecast 2017 437,167 175,577 154,500
October 1998	MTP Prioritization Process RTC Board Resolution 10-98-16	The MTP Prioritization Process was adopted in October 1998. This focussed on major mobility type projects. A Summary Report on the Prioritization Process was published including policy criteria, technical evaluation of projects and results. Economic development and existing commitments to business and industry were prime criteria for prioritization. Congestion Mitigation/Concurrency Deficiencies, project cost-effectiveness, completion of the transportation system, freight movement and bi-state movement were all considered. The significance of Transportation Demand Management (TDM) was noted.
December 1998	MTP Amendment RTC Board Resolution 12-98-24	Incorporated into the Dec. 1998 MTP amendment were • Results from the prioritization process. • A matrix of potential TDM strategies. • Chapter 4 (finance) updated to show balance between estimated revenues and forecast expenditures on MTP

Chronology of MTP Update and Amendment, 1994 to 2005

Date	Action	Notes *Employment is Bureau of Labor Statistics (BLS) equivalent or 'covered' employment*
		transportation needs. • Chapter 5 (system development) updated to include Prioritization Process, additional TDM detail and economic development description.. **Year** **Population** **Households** **Employment** Base 1990 238,053 88,438 80,100 Forecast 2017 437,167 175,577 154,500
April, 1999	MTP Amendment RTC Board Resolution 04-99-09	Phase I of the I-5/NE 219th Street; planning and design of a proposed new interchange was included in the MTP.
October 1999	MTP Update RTC Board Resolution 10-99-26	The demographic forecast was extended to 2020. The MTP update includes the new federally-required planning factors, adds several arterial improvements and has an updated air quality conformity analysis. **Year** **Population** **Households** **Employment** Base 1996 303,500 120,312 104,200 Forecast 2020 473,898 192,716 170,900
December 2000	MTP Amendment RTC Board Resolution 12-00-30	The amendment included the following elements: (i) I-5 AM peak period HOV lane project (ii) Base Year updated from 1996 to 1999 C-TRAN service description updated (July, 2000) (iii) Appendix A; projects under construction or fully funded noted. **Year** **Population** **Households** **Employment** Base 1999 337,000 137,974 112,490 Forecast 2020 473,898 192,716 170,900
Update: December 2002	MTP Update RTC Board Resolution 12-02-24	The update included the following elements: (i) Base year updated to year 2000 and horizon year extended to 2023. (ii) Update to Chapter 4 Finance Plan. (iii) Updated list of MTP "fiscally-constrained" recommended improvements. (iv) Strategic Plan element incorporated into MTP Appendix includes recommendations of the I-5 Partnership Governors' Task Force (June 2002). **Year** **Population** **Households** **Employment** Base 2000 345,238 127,203 118,310 Forecast 2023 486,225 200,094 185,370
December 2003	MTP Amendment RTC Board Resolution 12-03-32	The amendment included the following elements: (i) Add Port of Ridgefield Rail Overpass Project. (ii) Amend Strategic Plan Recommendations (Appendix B). (iii) Minor Amendments to Financial Plan to acknowledge funding of state "nickel package" projects. **Year** **Population** **Households** **Employment** Base 2000 345,238 127,203 118,310 Forecast 2023 486,225 200,094 185,370
December 2005	MTP Update	The update included the following elements:

Chronology of MTP Update and Amendment, 1994 to 2005

Date	Action	Notes *Employment is Bureau of Labor Statistics (BLS) equivalent or 'covered' employment*
	RTC Board Resolution 12-05-24	(i) Review and update of MTP Goals and Policies. (ii) Horizon year extended to 2030. (iii) Update to the Designated Regional Transportation System Map. (iv) Update to Chapter 4 Finance Plan. (v) Updated list of MTP "fiscally-constrained" recommended improvements. (vi) Strategic Plan element update in Appendix B. **Year** **Population** **Households** **Employment** Base 2000 345,238 127,203 118,310 Forecast 2030 486,225 200,094 238,515



MTP APPENDIX A

TRANSPORTATION CAPACITY IMPROVEMENTS ASSUMED IN MTP NETWORK AND AIR QUALITY ANALYSIS

Between 2002 and 2030 Clark County jurisdictions have planned for transportation improvements in locations with existing or forecast future capacity problems. These anticipated improvements were taken into consideration in carrying out the Metropolitan Transportation Plan needs and **air quality analysis**.

The **MTP** transportation system is the existing transportation network with improvements made on those links where projects are programmed in the Transportation Improvement Program. In addition, improvement projects are included where regional need has been identified in the MTP development process and for which there is strong regional commitment. Projects included in the MTP transportation system may eventually be programmed for funding from federal, state, Transportation Improvement Account (TIA), local sources and/or private sources.

Assignment of forecast future year trips onto the *MTP* transportation network in the regional travel forecasting model reveals where there are likely to be deficiencies in the transportation system over the longer term. Locations where future traffic volumes exceed MTP system capacity require an analysis of remedial measures to solve these anticipated deficiencies and an analysis of financial feasibility.

The list (overleaf) is of the major transportation improvements[1] which have been incorporated into the *MTP* transportation network for Clark County. These listed projects are identified in the Metropolitan Transportation Plan needs analysis and included in the air quality conformity analysis as required by the federal Clean Air Act Amendments and Washington Clean Air Act[2]. There will be consistency between the MTP list of projects and the projects programmed for funding in the *Metropolitan Transportation Improvement Program (MTIP) for Clark County*.

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1 Additional highway lanes, additional or improved interchanges, construction of new highway segments, expanded transit service.

2 Chapter 70.94 RCW.

Table A-1: Metropolitan Transportation Plan (MTP) Update (2005)
Projects Assumed to be Completed by 2030

2030 MTP: LIST OF MTP AND LOCAL PROJECTS					
(projects are included in the Regional Air Quality Conformity Analysis)					
This list includes both MTP Designated Regional Transportation System projects and local projects. *Projects in Italics are local transportation system and are not part of the MTP Designated Regional Transportation System*					
Facility	**Cross Streets**	**Improvement**	**Existing Condition**	**Estimated Year of Completion**	**Jurisdiction/ Agency**
I-5	Columbia River Crossing (CRC)	Environmental Impact Statement/Design	3 lanes each direction	N/A	WSDOT
I-5	99th Street to I-205	3 lanes ea. direction	2 lanes each direction	2007	WSDOT
I-5	SR-502 Interchange	New Interchange	None	2008	WSDOT
I-5	Pioneer Street (Ridgefield)/ SR-501 Interchange	Replace Interchange	Interchange	2009	WSDOT
I-5	The Salmon Creek Interchange Project (SCIP) at 134th/139th Street	Construct NE 139th St. from NE 20th to NE 10th Ave. Reconstruct interchange with ramps added at 139th St. Improve access to I-205 with flyover from 134th St to I-205 southbound Improve NE 10th Ave. from 134th to 149th St. with turn lanes.	Interchange	2010-2013	WSDOT
I-5	319th Street Interchange	Improve Interchange	Interchange	2011-2015	WSDOT
I-5	I-205 to 179th Street	Auxiliary lane in each direction	3 lanes each direction	2012-2013	WSDOT
I-5	179th Street Interchange	Reconstruct Interchange	Interchange	2016-2025	WSDOT
I-5	179th Street to SR-502	Auxiliary lane in each direction	3 lanes each direction	2016-2025	WSDOT
I-205	Mill Plain Exit (112th Avenue connector)	Build direct ramp to NE 112th Avenue	None	2007	WSDOT
I-205	Mill Plain to 28th Street	Ramps/Frontage Road between Mill Plain and 28th Streets	Overpass/underpass	2013	WSDOT
I-205	SR-14 to Mill Plain	Ramp Separation	Interchanges	2016-2025	WSDOT
I-205	28th Street	North ramps	None	2016-2025	WSDOT

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Facility	Cross Streets	Improvement	Existing Condition	Estimated Year of Completion	Jurisdiction/ Agency
I-205	SR-500	WB SR-500 to SB I-205 Flyover	Interchange	2016-2025	WSDOT
I-205	SR-500 to Padden Parkway	3 lanes each direction 83rd ramps	2 lanes each direction	2016-2025	WSDOT
I-205	Padden Parkway to 134th Street	3 lanes each direction	2 lanes each direction	2016-2025	WSDOT
SR-14	NW 6th Av. to SR-500/Union	2 lanes ea. direction w. interchange	1 lane each direction with intersections	2011	WSDOT
SR-14	I-205 to 164th Avenue	3 lanes ea. direction	2 lanes each direction	2016-2025	WSDOT
SR-14	SR-500/Union to 32nd Street	Improve capacity	1 lane each direction with intersections	2016-2025	WSDOT
SR-14	32nd Street Street Vicinity	Interchange	Intersection	2016-2025	WSDOT
SR-500	at I-205	Extend westbound auxiliary lane	3 lanes each direction	2009	WSDOT
SR-500	St. Johns Interchange	New Interchange	Intersection	2011	WSDOT
SR-500	42nd Avenue	Grade Separation	Intersection	2016-2025	WSDOT
SR-500	54th Avenue	Interchange with collector-distributor connecting to Andresen	Intersection	2016-2025	WSDOT
SR-502	NE 10th Avenue to Battle Ground	2 lanes each direction	1 lane each direction	2013	WSDOT
SR-503	East Fork Lewis River	Northbound and southtbound climbing lane	1 lane each direction	2011	WSDOT
99th Street Park and Ride	off I-5	Park & Ride	None	2006-2007	C-TRAN
Vancouver Transit Center	Mall area	Relocate Van Mall Transit Center to C-TRAN AOM	Transit Center	2006-2007	C-TRAN
C-TRAN Fleet	N/A	Vehicle Replacement for fixed route and demand response (through 2010)		2010	C-TRAN

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Facility	Cross Streets	Improvement	Existing Condition	Estimated Year of Completion	Jurisdiction/ Agency
C-TRAN Transit Enhancements	N/A	Improvements/amenities at bus stops (through 2010)		2010	C-TRAN
Salmon Creek Park & Ride	at I-5/NE 134th Street	Realign Salmon Creek Park & Ride at current site in conjunction with I-5/134th/139th Interchange	Park & Ride	2011	C-TRAN
C-TRAN System	System Wide	Transit Service Change	Transit System	Continuing	C-TRAN
C-TRAN System	System Wide	Deploy ITS (Phase 2 and 3)	None	Continuing	C-TRAN
C-TRAN System	Super Stops	Enhanced stop locations at key connections		2006-2008	C-TRAN
SR-503	at Padden Parkway	Add Interchange	None	2016-2025	Clark County/ WSDOT
117/119th Street	NW 7th Avenue to Hazel Dell Avenue	1 lane ea. direction, w/turn lane	None	2006	Clark County
117th Street	Hazel Dell Avenue to Highway 99	1 lane ea. direction, w/turn lane	1 lane each direction	2006	Clark County
NE 137th Avenue	NE Fourth Plain Boulevard to NE 76th Street	1 lane ea. direction, w/turn lane	1 lane each direction	2006	Clark County
Ward/172nd Av.	S. 99th Street to 119th St.	Realignment	Curved	2007	Clark County
St. John's Blvd.	NE 50th Avenue to 72nd Avenue	2 lanes ea. direction, w/turn lane	1 lane each direction	2007	Clark County
72nd Avenue	N. of 88th Street to St. Johns	2 lane ea. direction, w/turn lane	1 lane each direction	2008	Clark County
Highway 99	117th to 129th Street	2 lanes each direction w/ turn lane	2 lanes each direction	2023	Clark County
NE 72nd Avenue	119th to 133rd Street	2 lanes each direction w/ turn lane	1 lane each direction	2023	Clark County
119th Street	Salmon Creek Av. to 72nd Avenue	1 lane ea. direction, w/turn lane	1 lane each direction	2011-2015	Clark County
119th Street	72nd Avenue to SR-503	2 lanes ea. direction, w/turn lane	1 lane each direction	2011-2015	Clark County

2030 MTP: LIST OF MTP AND LOCAL PROJECTS

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Facility	Cross Streets	Improvement	Existing Condition	Estimated Year of Completion	Jurisdiction/ Agency
Highway 99	NE 99th Street to NE 117th Street	2 lane ea. direction, w/turn lane	2 lanes each direction	2011-2015	Clark County
179th Street	NE 10th Avenue to NE 29th Avenue	2 lane ea. direction, w/turn lane	1 lane each direction	2011-2015	Clark County
179th Street	NE 29th Avenue to NE 50th Avenue	1 lane ea. direction, w/turn lane	1 lane each direction	2011-2015	Clark County
179th Street	NW 5th to NW 11th Avenue	1 lane each direction w/turn lane	1 lane each direction	2014-2023	Clark County
Highway 99	South RR Bridge (Ross Street) to NE 63rd Street	2 lane ea. direction, w/turn lane (rail bridge)	2 lanes each direction	2016-2025	Clark County/ Vancouver
179th Street	NE 50th Avenue to Cramer Road	1 lane ea. direction, w/turn lane	1 lane each direction	2016-2025	Clark County
179th Street	Cramer Road to SR-503	2 lanes ea. direction, w/turn lane	None	2016-2025	Clark County
NE 119th Street	SR-503 to NE 172nd Avenue	1 lane ea. direction, w/turn lane	1 lane each direction	2016-2025	Clark County
Padden Parkway	Andresen	Add Interchange	Intersection 5 lanes ea. Direction	2016-2025	Clark County
179th Street	I-5 to NW 5th Avenue	2 lanes ea. direction, w/turn lane	I-5 to Delfel: 2 lanes each direction w/ turn lane Delfel to NW 5th: 2 lanes EB, 1 lane WB w Center Turn Lane	Partial Completion 2003 Completion will be by frontage improvements	Clark County
Highway 99	NE 63rd to NE 99th Street	Pedestrian route completion	Gaps in pedestrian system		Clark County
NE 15th Avenue	*179th Street to Union Road*	*1 lane ea. direction, w/turn lane*	*None*	*2006*	*Clark County*
NE Heisson Road	*at 244th Street*	*Improve intersection*	*Intersection*	*2007*	*Clark County*
NE 88th Street	*St. Johns Road to Andresen Road*	*1 lane ea. direction, w/turn lane*	*l lane each direction*	*2009*	*Clark County*
63rd Street	*Andresen Road to 72nd Avenue*	*2 lanes ea. direction, w/turn lane*	*1 lane each direction*	*2009*	*Clark County*

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63rd Street	*72nd Avenue to I-205 overcrossing*	*1 lane ea. direction, w/turn lane*	*1 lane each direction*	*2009*	*Clark County*
Hazel Dell Av.	*99th Street to 114th Street*	*1 lane ea. direction, w/turn lane*	*1 lane each direction*	*2011*	*Clark County*
NE 88th Street	*Highway 99 to St. Johns Road*	*1 lane ea. direction, w/turn lane*	*1 lane each direction*	*2011*	*Clark County*
NE 10th Avenue	*149th to 164th Street*	*1 lane ea. direction, no turn lane*	*1 lane each direction*	*2011-2015*	*Clark County*
NE 88th Street	*Hazel Dell Avenue to Highway 99*	*1 lane ea. direction, w/turn lane*	*None*	*2011-2015*	*Clark County*
NE 94th Avenue	*Padden Parkway to NE 119th Street*	*1 lane ea. direction, w/turn lane*	*1 lane/none*	*2011-2015*	*Clark County*
NE 99th Street	*SR-503 to NE 172nd Avenue*	*1 lane ea. direction, w/turn lane*	*1 lane each direction*	*2011-2015*	*Clark County*
NE 15th Avenue	*NE 179th Street to SR-502*	*1 lane ea. direction, w/turn lane*	*None*	*2016-2025*	*Clark County*
NE 99th Street	*St. Johns Rd. to SR-503*	*1 lane ea. direction, w/turn lane*	*None/1 lane*	*2016-2025*	*Clark County*
NW 11th Ave.	*NW 139th Street to 149th Street*	*1 lane ea. direction, w/turn lane*	*1 lane each direction*	*2016-2025*	*Clark County*
Rosewood Avenue	*NE 102nd Avenue to SR-503*	*1 lane ea. direction, w/turn lane*	*1 lane each direction*	*2016-2025*	*Clark County*
NE Delfel Road	*179th to 199th Street*	*1 lane each direction w/ turn lane*	*Re-aligned*	*2023*	*Clark County*
NE 199th Street	*NE 10th to NE 15th Avenue*	*1 lane each direction w/ turn lane*	*1 lane each direction*	*2023*	*Clark County*
NE 15th/20th Avenues	*NE 154th to NE 15th Avenue*	*Street upgrade*	*1 lane each direction*		*Clark County*
NE 50th Avenue	*LaLonde to 119th Street*	*1 lane each direction w/ turn lane*	*1 lane each direction*	*2023*	*Clark County*
NE 137th Avenue	*99th to 119th Street*	*1 lane each direction w/ turn lane*	*None*	*2023*	*Clark County*
SW 7th Av	*NE 199th St to SW Scotton Way*	*1 lane ea. Direction, w/turn lane, bike and pedestrian*	*None*	*2007*	*Battle Ground*

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Facility	**Cross Streets**	**Improvement**	**Existing Condition**	**Estimated Year of Completion**	**Jurisdiction/ Agency**
S Parkway Av.	*S 10th St to NE 199th St*	*1 lane ea. direction, w/turn lane, bicycle and pedestrian facilities*	*1 lane each direction*	*2007*	*Battle Ground*
SW Rasmussen Blvd	*SR-503 to S Parkway Av*	*1 lane ea. direction, w/turn lane, bicycle and pedestrian facilities*	*None*	*2008*	*Battle Ground*
SW Rasmussen Blvd	*SR-503 to SW 20th*	*1 lane ea. direction, w/turn lane, bicycle and pedestrian facilities*	*None*	*2008*	*Battle Ground*
SE Grace Av	East Main St to NE 199th St	1 lane ea. direction, w/turn lane, bicycle and pedestrian facilities	1 lane each direction	2008	Battle Ground
N Parkway Av.	*NE 5th St. to N Onsdorff Blvd*	*1 lane ea. direction, w/turn lane, median, bicycle and pedestrian facilities*	*1 lane each direction*	*2008*	*Battle Ground*
SW 7th Av	*Rasmussen to south terminus*	*1 lane ea. direction, w pedestrian facilities*	*None*	*2009*	*Battle Ground*
SW 7th Av	*Rasmussen to NE 199th St*	*1 lane ea. direction, w pedestrian facilities*	*None*	*2009*	*Battle Ground*
SW 20th Av.	*SR-502 to South City Limits*	*1 lane ea. direction, w/turn lane, bicycle and pedestrian facilities*	*1 lane each direction*	*2009*	*Battle Ground*
SR-502/12th Avenue	*Reconfigure roadway system and signal removal*	*1 lane ea. direction, w bicycle and pedestrian facilities*	*None*	*2009*	*Battle Ground*
NE 199th St	SE Grace to East City Limits	1 lane ea. direction, w/turn lane, bicycle and pedestrian facilities	1 lane each direction	2009	Battle Ground
Grace Av	Grace Av/East Main St	Align S Grace and N Grace	Unaligned intersections	2009	Battle Ground
SE 1st Street	*S Parkway to Grace*	*Widen road lanes, w pedestrian facilities*	*1 lane each direction*	*2010*	*Battle Ground*
NW/SW 1st St	*East terminus to Grace*	*1 lane ea. direction, w bicycle and pedestrian facilities*	*None*	*2010*	*Battle Ground*

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Facility	Cross Streets	Improvement	Existing Condition	Estimated Year of Completion	Jurisdiction/ Agency
NE 1st Street	*N Parkway to Grace*	*Widen road lanes, w pedestrian facilities*	*1 lane each direction*	*2010*	*Battle Ground*
N Parkway Av.	*Onsdorff to NE 244th St*	*1 lane ea. direction, w/turn lane, bicycle and pedestrian facilities*	*1 lane each direction*	*2010*	*Battle Ground*
Heisson Rd/NE 10th St	*NE Grace to East City Limits*	*1 lane ea. direction, w/turn lane, bicycle and pedestrian facilities*	*1 lane each direction*	*2010*	*Battle Ground*
SW 4th St	*S Parkway to west terminus*	*Widen road lanes, w pedestrian facilities*	*1 lane each direction*	*2010*	*Battle Ground*
SE Scotton Way	*East terminus to Grace*	*1 lane ea. direction, w bicycle and pedestrian facilities*	*None*	*2010*	*Battle Ground*
38th Avenue	Bybee Road to Astor	1 lane ea. direction, w/turn lane	1 lane each direction	2016-2025	Camas
NW 6th Av	Ivy to Division	1 lane ea. direction, w/turn lane	2 lanes each direction	2010-2016	Camas
NW 18th Av/SE Payne Rd	*Whitman St to NW Pac Rim Blvd.*	*1 lane ea. direction, w/turn lane*	*1 lane each direction*	*2007*	*Camas*
NW Brady Rd	*16th to 25th*	*1 lane ea. direction, w/turn lane*	*1 lane each direction*	*2007*	*Camas*
NW 38th Av	*Astor to Sierra*	*1 lane each direction*	*None*	*2008*	*Camas*
NW 43rd Av/ Astor St	*Sierra to 38th*	*1 lane ea. direction, w/turn lane*	*1 lane each direction*	*2008*	*Camas*
NW Astor St/ NW 11th Av	*Forest Home Rd to McIntosh Rd*	*1 lane ea. direction, w/turn lane*	*1 lane each direction*	*2008*	*Camas*
NW Cascade St	*12th to 18th*	*1 lane each direction*	*None*	*2008*	*Camas*
NW Larkspur St	*Lake Rd to 60th*	*1 lane each direction*	*None*	*2008*	*Camas*
Leadbetter Way	*Lake Road to Parker Street*	*1 lane ea. direction, w/turn lane*	*None*	*2009*	*Camas*
North Dwyer Creek Master Plan: Street "A"	*NW Lake Rd to Camas Meadows Dr*	*1 lane each direction*	*None*	*2010-2016*	*Camas*

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Facility	**Cross Streets**	**Improvement**	**Existing Condition**	**Estimated Year of Completion**	**Jurisdiction/ Agency**
North Dwyer Creek Master Plan: Street "B"	*#NW Friberg to NW Larkspur*	*1 lane each direction*	*None*	*2010-2016*	*Camas*
NW 18th Av	*Whitman to Brady*	*1 lane ea. direction, w/turn lane*	*None*	*2010-2016*	*Camas*
NW 38th Av/ SE 20th St	*SE Bybee Rd to Sierra*	*1 lane ea. direction, w/turn lane*	*East of Parker, None*	*2010-2016*	*Camas*
NW Friberg St	*SE 1st St to Goodwin*	*1 lane ea. direction, w/turn lane*	*1 lane each direction*	*2010-2016*	*Camas*
NW McIntosh Rd	*Brady to 11th*	*1 lane ea. direction, w/turn lane*	*1 lane each direction*	*2010-2016*	*Camas*
NW Payne St	*NW Lake Rd to Camas Meadows Dr*	*1 lane each direction*	*Private Drive*	*2010-2016*	*Camas*
E 4th Street	Highland to E. City Limits	Urban upgrade	Unimproved road segment	2007	La Center
Highland Street	High School to E City Limits	Urban upgrade	Unimproved road segment	2010-2016	La Center
Highland Street	E 4th Street	Realignment and improved intersection	Offset intersection with poor sight visibility	2007	La Center
E 4th Street		Culvert/bridge replacement		2010-2016	La Center
La Center Road	at Timmen Road	Construct left turn lanes	Unimproved intersection	2010-2016	La Center
Timmen Road	at La Center Road	Construct right-turn lane	Unimproved intersection	2010-2016	La Center
Collector roadway	*Highland to E 4th Street*	*New eastside collector roadway*	*None*	*2010-2016*	*La Center*
Brezee Creek		*Pedestrian/bicycle crossing*		*2010-2016*	*La Center*
Pioneer Street/SR-501	I-5 NB Ramps to S 10th Street	2 lanes each direction w/ turn lane	1 lane each direction	2008	Ridgefield
Pioneer Street/SR-501	.5 mile west of S 45th to I-5 NB ramps	2 lanes each direction w/ turn lane	1 lane each direction	2010	Ridgefield

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Facility	**Cross Streets**	**Improvement**	**Existing Condition**	**Estimated Year of Completion**	**Jurisdiction/ Agency**
Hillhurst Road	SR-501 to Royle Road	1 lane each direction w/ turn lane	1 lane each direction	2013	Ridgefield
Pioneer Street Bridge	over Gee Creek	Bridge Replacement	2 lane bridge	2015	Ridgefield
Pioneer Street/SR-501	.5 miles west of S 45th to W of Reiman Road	Widen, 1-2 lanes each direction	1 lane each direction	2015	Ridgefield
Port of Ridgefield Rail Crossing, vicinity of Division Street, Ridgefield	Rail Overcrossing to Port of Ridgefield	Grade separated crossing of mainline railway Feasibility study and environmental impacts review	at-grade rail crossings	2020	Ridgefield
S 10th Avenue	*NE 259th Street to S 5th Street*	*Rebuild road w/ shoulder*	*1 lane each direction*	*2007*	*Ridgefield*
6th Way	*S 56th Place to S 51st Avenue*	*1 lane each direction w/ turn lane*	*Not continuous*	*2008*	*Ridgefield*
Timm Road	*S 6th Way to S 20th Way*	*Widen, 1 lane each direction*	*1 lane each direction*	*2008*	*Ridgefield*
N 10th Street/ 279th street	*E side of I-5 to N 65th Avenue*	*1 lane each direction w/ turn lane*	*1 lane each direction*	*2009*	*Ridgefield*
N 35th Street	*SR-501 to N 10th Avenue*	*1 lane each direction*	*Not continuous*	*2009*	*Ridgefield*
N 65th Avenue/NW 11th	*Pioneer to NW 289th Street*	*1 lane each direction w/ turn lane*	*1 lane each direction*	*2009*	*Ridgefield*
N 51st Avenue	*S 15th to N 5th Street*	*1 lane each direction w/ turn lane*	*Not continuous*	*2010*	*Ridgefield*
N 51st Avenue	*N 5th to N 10th Street*	*1 lane each direction w/ turn lane*	*Not continuous*	*2010*	*Ridgefield*
N 56th Avenue	*SR-501 to N 10th Street*	*1 lane each direction w/ turn lane*	*Not continuous*	*2010*	*Ridgefield*
S 10th Street	*Pioneer Extension to NE 10th Avenue*	*1 lane each direction w/ turn lane*	*Not continuous*	*2010*	*Ridgefield*
S 35th Avenue	*SR-501 to South UGA*	*1 lane each direction*	*Not continuous*	*2010*	*Ridgefield*

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Facility	Cross Streets	Improvement	Existing Condition	Estimated Year of Completion	Jurisdiction/ Agency
289th Street	*NW 31st (45th Avenue) to NW 11th (65th Avenue)*	*I-5 overcrossing*	*Not continuous*	*2012*	*Ridgefield*
N 5th Street	*N 45th Avenue to N 56th Place*	*1 lane each direction w/ turn lane*	*Not continuous*	*2012*	*Ridgefield*
NE 10th Avenue	*S 5th to NE 279th Street*	*1 lane each direction w/ turn lane*	*1 lane each direction*	*2012*	*Ridgefield*
NW 11th	*Pioneer to S 5th Street*	*1 lane each direction w/ turn lane*	*1 lane each direction*	*2012*	*Ridgefield*
Reiman Road	*SR-501 to N 10th Street*	*1 lane each direction w/ turn lane*	*1 lane each direction*	*2012*	*Ridgefield*
Royle Road	*Hillhurst Road to S 45th Avenue*	*1 lane each direction w/ turn lane*	*1 lane each direction*	*2012*	*Ridgefield*
S 10th Way	*S 35th Place to S 25th Place*	*Rebuild road*	*1 lane each direction*	*2012*	*Ridgefield*
S 15th Street	*S 45th Avenue to S 35th Place*	*Rebuild road*	*1 lane each direction*	*2012*	*Ridgefield*
S 45th Avenue	*S 15th to N 10th Street*	*1 lane each direction w/ turn lane*	*1 lane each direction*	*2012*	*Ridgefield*
8th Avenue	*Pioneer to Division Street*	*Extend existing road*	*Not continuous*	*2015*	*Ridgefield*
N 10th Street	*N 45th to N 51st Avenue*	*1 lane each direction w/ turn lane*	*Not continuous*	*2015*	*Ridgefield*
NW 289th Street Extension	*NW 11th Avenue to NE 10th Avenue*	*1 lane each direction w/ turn lane*	*1 lane each direction*	*2015*	*Ridgefield*
S 15th Street	*Pioneer Extension to S 45th Avenue*	*1 lane each direction w/ turn lane*	*Not continuous*	*2015*	*Ridgefield*
S 20th Way	*Timm Road to S 51st Avenue*	*1 lane each direction w/ turn lane*	*1 lane each direction*	*2015*	*Ridgefield*
S 25th Place	*S 10th to S 4th Way*	*Rebuild road*	*1 lane each direction*	*2015*	*Ridgefield*
S 35th Avenue	*South UGB to S 15th Street*	*1 lane each direction*	*Not continuous*	*2015*	*Ridgefield*
S 51st Avenue	*S 20th Way to S 15th Way*	*1 lane each direction w/ turn lane*	*Not continuous*	*2015*	*Ridgefield*

2030 MTP: LIST OF MTP AND LOCAL PROJECTS					
(projects are included in the Regional Air Quality Conformity Analysis)					
This list includes both MTP Designated Regional Transportation System projects and local projects. *Projects in Italics are local transportation system and are not part of the MTP Designated Regional Transportation System*					
Facility	**Cross Streets**	**Improvement**	**Existing Condition**	**Estimated Year of Completion**	**Jurisdiction/ Agency**
S 5th Street	*Pioneer Extension to NE 10th Avenue*	*1 lane each direction w/ turn lane*	*1 lane each direction*	*2015*	*Ridgefield*
S 5th Street	*NW 11th Street to Pioneer Street Extension*	*1 lane each direction w/ turn lane*	*1 lane each direction*	*2015*	*Ridgefield*
N 10th Street	*Reiman Road to N 45th Avenue*	*1 lane each direction w/ turn lane*	*Not continuous*	*2017*	*Ridgefield*
138th Avenue	18th Street to 28th Street	2 lanes ea. direction, w/turn lane	1 lane each direction	2006	Vancouver
Main Street	6th Street to 15th Street (Mill Plain)	Convert to two-way street	One-way street	2006	Vancouver
164th Avenue	SE 1st to SR-14	Reconstruct 5 intersections to improve traffic flow	Unimproved intersections	2006	Vancouver
Confluence Land Bridge over SR-14	Fort Vancouver to Old Apple Tree	New shared-use bridge over SR-14	No bridge	2006	Vancouver
Andresen Road	Fourth Plain to 40th Street	Pedestrian improvements and urban upgrade.	Discontinuous sidewalks	2007	Vancouver
Broadway	6th Street to 15th Street	Reconstruct and convert to two-way street	One-way street	2007	Vancouver
I-205 South Corridor		Conduct environmental analysis for approved access plan for I-205 south corridor		2007	Vancouver
NE 137th Avenue	City Limits to Fourth Plain	2 lanes ea. direction, w/turn lane	1 lane each direction	2008	Vancouver/ Clark Co (annexation area)
137th Avenue	49th Street to Vancouver City Limits	2 lanes ea. direction, w/turn lane	1 lane each direction	2008	Vancouver
138th Avenue	28th Street to 49th Street	2 lanes ea. direction, w access management	1 lane each direction	2008	Vancouver
18th Street	112th Avenue to 138th Avenue	2 lanes ea. direction, w/turn lane	1 lane each direction	2008	Vancouver
NE 28th Street	142nd Avenue to 162nd Avenue	1 lane ea. direction, w/turn lane	1 lane each direction	2008	Vancouver

2030 MTP: LIST OF MTP AND LOCAL PROJECTS

(projects are included in the Regional Air Quality Conformity Analysis)

This list includes both MTP Designated Regional Transportation System projects and local projects.
Projects in Italics are local transportation system and are not part of the MTP Designated Regional Transportation System

Facility	Cross Streets	Improvement	Existing Condition	Estimated Year of Completion	Jurisdiction/ Agency
Fourth Plain Boulevard/ Andresen	Intersection Influence Area	Reconstruct Fourth Plain in vicinity of 65th/66th Avenue to Andresen		2009	Vancouver
SE 20th Street	192nd Ave. to Camas City Limits	New urban minor arterial roadway	No Street	2012	Vancouver
18th Street	86th Avenue to 112th Avenue	Extend existing street 1 lane ea. direction, w/turn lane	No street (86th to 107th Avenue) 1 lane each direction (107th to 112th Avenue)	2010	Vancouver
18th Street	138th Avenue to 162nd Avenue	2 lanes ea. direction, w/turn lane	1 lane each direction	2010	Vancouver
192nd Avenue	SE 1st Street to NE 18th Street	2 lanes ea. direction, w/turn pockets	1 lane each direction	2010	Vancouver
SE 1st Street	164th Avenue to 192nd Avenue	2 lanes ea. direction, w/turn lane	1 lane each direction	2010	Vancouver
18th Street	162nd Avenue to 192nd Avenue	2 lanes ea. direction, w/turn lane	1 lane each direction	2012	Vancouver
Fruit Valley Rd	Whitney to 78th Street	1 lane ea. direction, w/turn lane	1 lane each direction	2012	Vancouver
Fourth Plain	I-5 to Railroad Bridge	2 lanes each direction	1 lane each direction with center turn lane	2016-2025	Vancouver
112th Avenue	Mill Plain to 49th Street	2 lanes ea. direction, w/turn lane	2 lanes each direction	2016-2025	Vancouver
Amtrak Station	At NW 11th Street	Renovation of Train Station	Train Station	2007	Vancouver
49th Street	*112th Avenue to 122nd Avenue*	*2 lanes ea. direction, w/turn lane*	*1 lane each direction*	*2006*	*Vancouver*
49th Street	*122nd to 137th Avenue*	*1 lane ea. direction, w/turn lane*	*1 lane each direction*	*2007*	*Vancouver*
E 4th St.	*136th Avenue to Hearthwood*	*Complete 1st/4th St. corridor connection, take Mill Plain local traffic*	*No Street*	*2007*	*Vancouver*
Olympia Drive north extension	*Mill Plain to 1st St.*	*New N/S roadway through Evergreen Airport property*	*No Street*	*2007*	*Vancouver*

2030 MTP: LIST OF MTP AND LOCAL PROJECTS					
(projects are included in the Regional Air Quality Conformity Analysis)					
This list includes both MTP Designated Regional Transportation System projects and local projects. ***Projects in Italics are local transportation system and are not part of the MTP Designated Regional Transportation System***					
Facility	**Cross Streets**	**Improvement**	**Existing Condition**	**Estimated Year of Completion**	**Jurisdiction/ Agency**
39th Street	*At Railroad Tracks*	*Over-Crossing and Vancouver Yard Rail Improvement*	*At-Grade Crossing*	*2008*	*Vancouver*
NE 147th Avenue	*Ward Road/Fourth Plain to NE 59th Street*	*Construct new minor arterial 1 lane each direction with turn lane*	*No street*	*2008*	*Vancouver*
NE 59th Street	*137th to 162nd Avenue*	*Construct new minor arterial 1 lane each direction with turn lane*	*No street*	*2008*	*Vancouver*
Esther Street	*At RR Tracks*	*Railroad Undercrossing*	*None*	*2009*	*Vancouver*
49th Street	*15th Avenue to St James*	*Reconstruct, widen and upgrade to urban standards*	*1 lane each direction*	*2009*	*Vancouver*
94th Avenue	*Van Mall Drive to NE 54th Street*	*Urban upgrade*	*1 lane each direction*	*2009*	*Vancouver*
NE 122nd Avenue	*NE 39th Street to NE 49th Street*	*1 lane ea. direction, w/turn lane (collector standards)*	*1 lane each direction*	*2010*	*Vancouver*
9th Street/11th Street	*I-205 to 162nd Avenue*	*Close gaps and complete corridor*	*Unconnected street system*	*2010*	*Vancouver*
Lincoln Street	*Fourth Plain Boulevard to Railroad Avenue*	*Realign, reconstruct and grade separate*	*1 lane each direction*	*2010*	*Vancouver*
Railroad Avenue	*Columbia to new Lincoln Avenue grade separated facility*	*New waterfront east/west arterial*	*No street*	*2010*	*Vancouver*
26th Avenue	*Fourth Plain to Whitney Road*	*1 lane ea. direction, w/turn lane new minor industrial arterial*	*None*	*2012*	*Vancouver*
Columbia Shores	*S. of SR-14*	*Rail Trestle, Widen Portal*	*Under-Pass*	*2012*	*Vancouver*

2030 MTP: LIST OF MTP AND LOCAL PROJECTS

(projects are included in the Regional Air Quality Conformity Analysis)

This list includes both MTP Designated Regional Transportation System projects and local projects.
Projects in Italics are local transportation system and are not part of the MTP Designated Regional Transportation System

Facility	Cross Streets	Improvement	Existing Condition	Estimated Year of Completion	Jurisdiction/ Agency
Jefferson/ Kauffman St.	*Mill Plain to 6th St.*	*Realign offset @ 13th, grade separate from rail @ 8th St.*	*Substandard*	*2012*	*Vancouver*
NE 104th Avenue	*NE 14th Street to NE 18th Street*	*Extend existing street 1 lane each direction*	*Improve & construct new N/S corridor west of I-205*	*2015*	*Vancouver*
Lieser Road/ NE 87th Avenue	at Mill Plain	Intersection improvement	Offset intersection	2012	Vancouver
Lincoln Street	*Fourth Plain to 39th Street*	*Construct new section of road 1 lane each direction*	*Unconnected street system*	*2013*	*Vancouver*
54th Street	*18th Avenue to St James*	*Reconstruct, widen and upgrade to urban standards*	*1 lane each direction*	*2013*	*Vancouver*
Brady Road West Extenstion	*192nd Ave. interchange to 171st Ave.*	*New arterial roadway from 192nd interchange, west to existing neighborhoods*	*None*	*2015+*	*Vancouver*
SE 10th Street	*Ellsworth to I-205*	*2 lanes ea. direction, w/turn lane*	*1 lane each direction*	*2016-2025*	*Vancouver*
Vancouver Mall Dr.	*Andresen Road to 66th Avenue*	*1 lane ea. direction, w/turn lane*	*None*	*2016-2025*	*Vancouver*
E Street/D Street	West City Limits (Lechner/6th) to East City Limits (Sunset View Road)	Boulevard Design Improvement (1 lane each direction with left turn, sidewalks and bikelanes)	2 lanes each direction (west of 39th St) 1 lane each direction (east of 39th St)	2009	Washougal
Yacolt Road	Amboy Avenue to Railroad Avenue	Rebuild road w. shoulder 1 lane each direction	1 lane each direction	2007	Yacolt
County-wide	County Wide	Walkway & Bicycle Programs and Projects		Continuing	All
County-wide	County Wide	Demand Management		Continuing	All
Various	System Wide	Intelligent Transportation System (ITS) Additions	None	Continuing	

Projects listed above include both projects **on** the regional transportation system as well as projects **off** the regional system. Both types of project have been included in the regional travel forecasting model network and have therefore been included in the regional air emissions analysis to meet the requirements of the federal Clean Air Act Amendments and Washington Clean Air Act.

In addition to the listed projects, the RTP is supportive of any other project for which a need has been demonstrated through the regional transportation planning process that will serve to enhance the efficiency and operation of the regional transportation system. These project include **MAINTENANCE, PRESERVATION, SAFETY, PEDESTRIAN, BICYCLE, ENHANCEMENT, TRANSPORTATION SYSTEM MANAGEMENT (TSM), TRANSPORTATION DEMAND MANAGEMENT (TDM).**

Table A-2: Other Transportation System Development Elements

TABLE A-2: OTHER TRANSPORTATION SYSTEM DEVELOPMENT ELEMENTS	
MAINTENANCE	
	Maintenance work ensures a safe, reliable and efficient transportation system on a day to day basis with such activities as pothole filling, repair of damaged bridges, incident response, maximizing operational efficiency by signal timing, snow clearing, vegetation planting and clearing, drainage and fence maintenance and litter removal. The MTP supports regional system maintenance work identified by WSDOT and local agencies.
PRESERVATION	
	Preservation projects ensure that investment in the regional transportation system is protected. Specific projects include repaving of highways, refurbishing rest areas and bridge rehabilitation. Needs and projects are identified by local agencies and WSDOT through such programs as the Highway Performance Monitoring System (HPMS), ISTEA-required Pavement Management System (PMS) and Bridge Management System (BMS).
SAFETY	
	Needs identified through the ISTEA-required Safety Management System (SMS) and local analysis.
PEDESTRIAN AND BICYCLE MODE (SEE CHAPTER 5)	
	Needs identified through state and local planning programs including recommendations from the Clark County Bicycle Advisory Committee, the Comprehensive Growth Management Plans, local plans and the *Clark County Trails and Bikeway System Plan* (December 1992; Clark County). The *Clark County Trails and Bikeway System Plan* is currently being updated. In 2005 public open house workshops were held to discuss and offer feedback about the Plan update. Workshops included brainstorming possible changes to the current Plan, gathering input regarding which trails are most important to community members, discussing how trail improvements should be funded; and examining the existing system to identify gaps. There is community interest in providing a trail along the Chelatchie Prairie/Clark County Railroad. Trails of regional significance within Clark County include Bells Mountain Trail, Burnt Bridge Creek Trail, Columbia Renaissance Trail, Cougar Creek Trail, the Discovery Loop, Evergreen Highway Trail, Jason Lee Park Trail, Lacamas Park Trail, Lacamas Heritage Trail, La Center Bottoms Trail, Lewisville Park Trail, Lucia Falls and Moulton Falls Trails, Orchards Park Trail, Salmon Creek Greenway Trail, Steigerwald Trail, Vancouver Lake and Frenchman's Bar Trails, Whipple Creek Park Trail and Wy-East Park Trail. Some of the trails can accommodate equestrians. Detailed information on the trails system can be found at: http://www.ci.vancouver.wa.us/parks-recreation/index.asp

TABLE A-2: OTHER TRANSPORTATION SYSTEM DEVELOPMENT ELEMENTS	
	PEDESTRIAN AND BICYCLE MODE (CONTINUED) Also of regional significance is improvement of pedestrian and bicycle facilities that will improve access to transit facilities. 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. Local jurisdictions have adopted design standards for arterials that include sidewalks for most facilities and bike lanes for some of the arterial segments. Local jurisdictions work in partnership with School Districts on the 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 and bike lanes and bike paths. Examples of schools within the region that could benefit from improved walk and bike access include to Sarah J. Anderson Elementary School in unincorporated Clark County, to Union Ridge Elementary and the adjacent View Ridge Junior High School in Ridgefield and to Discovery Middle School, Ellsworth, Ogden, Crestline and Image Elementary Schools in the City of Vancouver. The pedestrian and bicycle mode are promoted through the Active Community Environments program in Clark County. Regular meetings of the Active Communities Task Force are held.
TRANSIT	
Fixed-route System	Service Hours [per C-TRAN's service and financial planning process. C-TRAN anticipates completion of a 20-Year Transit Development Plan in 2006. Results will be reported in the 2006 MTP] 2004 Annual Service Hours: 263,440 2030 Forecast Annual Service Hours: 203,560+/-
Capital Equipment Needs	Bus Purchases to support service hours and replace older fleet.
HIGH CAPACITY TRANSPORTATION CORRIDORS	
	• The I-5 corridor from the Oregon state line north to the I-205 interchange, the I-205 corridor and the SR-500 corridor from I-5 to Orchards are designated as MTP High Capacity Transportation Corridors. • Frequent bi-state bus service.
REGIONAL TRANSPORTATION PLANNING STUDIES	
	Transportation Studies and Related Studies Currently Underway Include: • Columbia River Crossing project • SR-14 Corridor Study (Camas/Washougal area) • 18th Street Corridor Study (City of Vancouver) • Fourth Plain Sub Area Plan (City of Vancouver) • Comprehensive Growth Management Plans

TABLE A-2: OTHER TRANSPORTATION SYSTEM DEVELOPMENT ELEMENTS	
TRANSPORTATION SYSTEM MANAGEMENT (TSM)	
	Potential System Management solutions are outlined in the State's *Statewide Multimodal Transportation Plan, System Plan Component* as well as local Growth Management plans. A key strategy of transportation system management is the implementation of an intelligent transportation system (ITS) for the Clark County region. The Vancouver Area Smart Trek Program (VAST) is the ITS initiative for the region developed as a cooperative effort by jurisdictions and transportation agencies in Clark County. It is made up of seven initiatives to improve the management and operation of the system: 1) Communications infrastructure, 2) Traveler information, 3) incident management, 4) transportation management, 5) advanced traffic control, 6) transit priority, and 7) transit operation and management. The **VAST Implementation Plan** is a twenty-year project list developed around the initiatives above. It contains a description of each project, its priority, estimated costs and benefits and its relationship with other projects in the plan. There is also an Implementation Schedule for the plan that, in general, lists short, medium, and long-term time frames. Short term projects include interconnected and adaptive signal control, freeway cameras and roadway detection, variable message signs, a traveler information system, and a traffic management center. C-TRAN's VAST projects include automatic vehicle locators, automatic passenger counters and computer aided dispatch. For more information, refer to the VAST website at http://www.vastrek.org/travelinfo.htm
TRANSPORTATION DEMAND MANAGEMENT (TDM)	
	Demand management activities are determined through the **Commute Trip Reduction** program ongoing in the Clark County region. The Portland-Vancouver I-5 Transportation and Trade Partnership (2002) also included a set of TDM recommendations relevant to the I-5 corridor. Short term recommendations include: • Additional Education and Outreach about work destination based, peak hour travel options. The first phase would be a survey to document existing origin and destination travel patterns. • Promote business subsidy of transit passes for employers. • Promote carpoolmatchNW.org to assist in carpool formation. • Offer guaranteed rides home at work sites. • Explore methods to better integrate C-Tran and Tri-Met printed and real-time customer information to expedite Bi-State travel using both systems (e.g. C-TRAN service information on Tri-Met Real Time Kiosks and expand the number of kiosks). • Explore business and community interest for additional and/or expanded Transportation Management Associations in the I-5 Corridor between the Columbia River and Lloyd District, including Swan Island, Rivergate and the Interstate Avenue. A study to determine the most beneficial and effective TDM measures is also recommended.

Should projects in the categories listed above require state or federal funding, they are brought forward to RTC as the region's MPO to carry out a coordinated decision-making process whereby projects are prioritized and selected for funding. Regional level air quality conformity analysis is prepared by RTC and project level conformity analysis, where required, is also prepared by RTC for local projects and by WSDOT for State projects.

APPENDIX A-1

Table A-3: Regional Prioritization of Corridors and Projects
(will be revised with the next MTP update)

Placeholder for Regional Prioritization of Corridors and Projects
to be updated and reported in the next MTP update

APPENDIX A-2

Table A-4: Measures to Implement TDM and TSM

SUGGESTED MEASURES TO IMPLEMENT TRANSPORTATION DEMAND MANAGEMENT (TDM) AND TRANSPORTATION SYSTEM MANAGEMENT (TSM)		
Facility/ Strategy	**Elements**	**Description**
Transit	Transit Service Provision	Per C-TRAN/s Transit Development Plan (TDP)
Pedestrian	Improve Pedestrian Access to Transit	Pedestrian improvements provided through highway building projects (improved design standards), Transportation Improvement Program of local jurisdictions.
TDM	Vanpool Program	Increase subsidy for vanpool program participants. 120 vanpools operated during the I-5 span closure in September 1997.
TDM	Carpool Program	To provide for incentives. Further promote carpoolmatchNW.org
TDM	Telecommuting/ Teleworking	Fund employer outreach program
TDM	Flexible Work Hours	Fund employer outreach program
TSM	Vancouver Area Smart Trek (VAST): Traffic Management Centers and freeway and arterial management	Coordinated state and local Traffic Management Centers within Clark County with links to Oregon Department of Transportation Traffic Management Center for the management of bi-state transportation facilities. Expand communications network and expand freeway and arterial camera and detection coverage to manage facilities and deploy interconnected and adaptive signal control. Full deployment of the VAST Plan, including incident management, is estimated at $45 million, some costs overlap with system maintenance cost estimates provided in MTP Chapter 4.

CLEAN AIR CONFORMITY DETERMINATION

AIR QUALITY CONFORMITY STATEMENT

The Metropolitan Transportation Plan for Clark County is found to **be in conformity with the Federal Clean Air Act as amended in 1990 and with the Washington Clean Air Act** (chapter 70.94 RCW). The MTP list of transportation projects assumed to be constructed by 2030 is found to not adversely impact the State Implementation Plan (SIP) and is found to be in conformity with the SIP. All regionally significant transportation improvement projects are included in the regional travel forecasting model for purposes of air quality conformity analysis. A list of the projects included in the estimate of mobile emissions is listed in the MTP's Appendix Table A-1. Air quality conformity results are outlined in Table A-5.

BACKGROUND

Required under the Federal Clean Air Act, the State Implementation Plan (SIP) provides a blueprint for how maintenance areas will meet the National Ambient Air Quality Standards (NAAQS). Plan conformity analyses and a positive finding of conformity are required by the Federal Clean Air Act, by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU, 2005) and the Clean Air Washington Act. Positive conformity findings will allow the region to proceed with implementation of transportation projects in a timely manner.

Transportation conformity is a mechanism for ensuring that transportation activities, plans, programs and projects are reviewed and evaluated for their impacts on air quality prior to funding or approval. The intent of transportation conformity is to ensure that new projects, programs, and plans do not prevent an area from meeting and maintaining air quality standards. Specifically, regional transportation plans, improvement programs, and projects may not cause or contribute to new violations, exacerbate existing violations, or interfere with the timely attainment of air quality standards.

AIR QUALITY STATUS

Current Status: Under the new federal 8-hour Ozone standard, the Vancouver/Portland Air Quality Maintenance Area (AQMA) has been redesignated from "maintenance" to "unclassifiable/attainment" for Ozone and no longer needs to demonstrate conformity for Ozone. The Vancouver AQMA is currently designated as a CO maintenance area.

Previous Status: On March 15, 1991, the Governor of Washington State designated the urban area of the Vancouver portion of the Portland-Vancouver Interstate Air Quality Maintenance Area as a marginal non-attainment area for ozone (O_3) and a moderate carbon monoxide (CO) non-attainment area. This action was taken in accordance with Section 107 of the Federal Clean Air Act as amended in 1990.

APPLICABLE STATE IMPLEMENTATION PLAN

The State Implementation Plan (SIP) currently in effect is the 1992 State Implementation Plan (SIP) for Washington State, as amended by the 1996 Carbon Monoxide and 1997 Ozone Maintenance Plans for Vancouver, Washington. The region has initiated a process to update the CO Maintenance Plan for the Vancouver AQMA, which should be completed in late 2005 or early 2006.

CONSULTATION PROCESS

Federal and state rules and regulations require formal consultation procedures for conducting conformity analyses. Consultation procedures require the presentation of key assumptions made in the process of conducting conformity analyses. As part of the consultation process, RTC staff reviews key analytical assumptions for the conformity analysis with federal and state agencies.

AIR QUALITY CONFORMITY METHODOLOGY AND RESULTS

The air quality conformity test is designed to prevent violation of the National Ambient Air Quality Standards (NAAQS). The MTP must comply with the mobile emissions budgets specified in the Maintenance Plans, and transportation emissions are not allowed to exceed the levels relied upon in the Maintenance Plan demonstration. To ensure consistent assumptions, the same methodology used to develop the mobile emissions budgets for the Maintenance Plans has been used to assess the MTP mobile emissions as part of the air quality conformity process.

Output from the regional travel forecast model and vehicle emissions rates are the basis for the air quality conformity analysis. The regional travel forecast model is based on the most current demographic forecast available in the region. The MTP population forecast is a regional forecast developed by Washington Office of Financial Management and coordinated with local jurisdictions. Comprehensive land use plans are used in the regional transportation planning process as the basis for determining future land use and identifying where future development is likely to occur.

The air quality conformity analysis relies on travel data for three time periods (the AM 1-hour, the PM 2-hour, and the rest-of-the-day) and is based on use of EMME/2 regional travel model software, and on use of Mobile 6.2.01 to determine emissions rates as part of the emissions calculations. Input assumptions for Mobile 6.2.01 were received from the Southwest Clean Air Agency (SWCAA), Washington Department of Ecology (DOE), and the Oregon Department of Environmental Quality (ODEQ). Total emissions are calculated for each link in the system. Appendix A of the MTP includes a list of projects that are included in the MTP air quality analysis.

Carbon monoxide has several categories of emissions that make up the all-day total; hot starts, cold starts, and hot stabilized emissions. CO is calculated for winter conditions. The emissions calculations include emissions caused by intra-zonal trips (trips which begin and end in the same Transportation Analysis Zone (TAZ). All outputs were seasonally adjusted based on EPA/SWCAA/DOE guidance. Emissions estimates include credits taken for the following clean air programs: activities under the Commute Trip Reduction Ordinance and Clean Air Action Days (free transit service and public education).

Table A-5: 2005 Metropolitan Transportation Plan: Air Quality Conformity Results
Daily Emissions Estimates for Clark County AQ
(maximum emissions)

Year	**Winter CO** (lbs per day.)	
	Budget	**MTP Emissions Estimate**
2006	260,000	249,352
2009	260,000	238,636
2019	260,000	199,405
2023	260,000	203,214
2030	260,000	205,502

STATUS OF TRANSPORTATION CONTROL MEASURES

The SIP for Washington State does not include Transportation Control Measures (TCMs) for the Vancouver portion of the Portland-Vancouver Interstate Air Quality Maintenance Area. Although no TCM's are required, the MTP does include public transit service and transit facilities as contingency strategies to reduce emissions. Also, Washington's vehicle emission inspection (I/M) program was expanded to the Vancouver area in 1993. Clark County's larger employers implement programs to meet

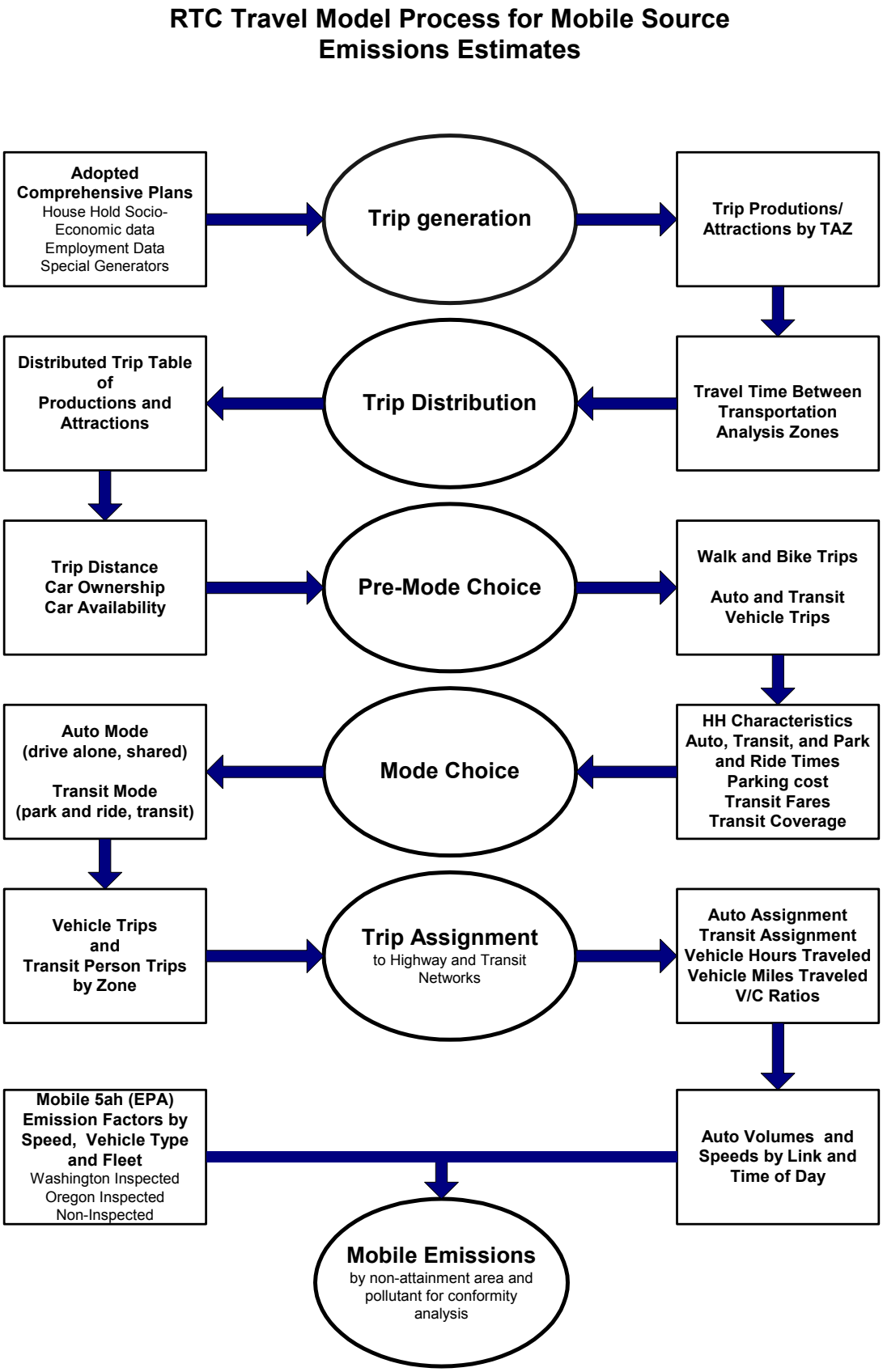
the requirements of the Commute Trip Reduction (CTR) law passed by the 1991 Washington State legislature. All of the above measures should help the region to maintain national air quality standards.

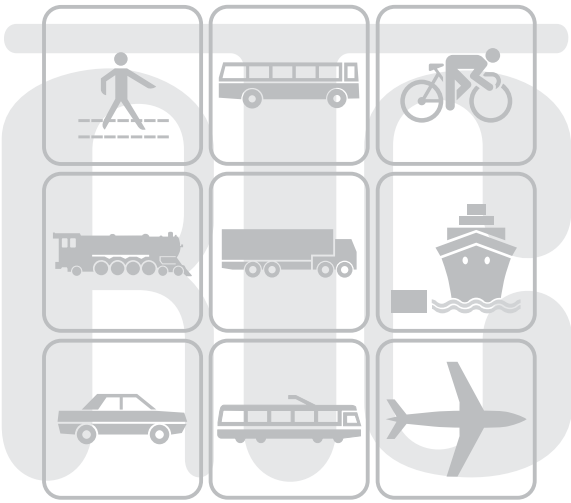
Table A-6: Air Quality Conformity: Key Assumptions

Key Assumptions In MTP Regional Air Quality Conformity		
Assumptions	**Notes**	**MTP**
Land Use: Population and Employment	Based on most up-to-date version of the Comprehensive Growth Management Plan for Clark County (adopted September 2004)	Described in Chapter 2 of MTP. Summary demographics tables on page 2-14
Regional Travel Forecast Model: used to determine future travel need and congestion levels.	Based on Portland metropolitan region regional travel forecast model but with finer Transportation Analysis Zone system in Clark County for more specificity.	Model described in Chapter 3 MTP, page 3-23 to 3-29 See summary tables relating to system performance in MTP Chapter 3, pages 3-27 through 3-28 (congestion).
Highway Network	Coded in regional travel forecast model	Listed projects found in MTP Appendix A, pages A-2 through A-19. Relationship to air quality analysis described in MTP Appendix A, page A-1 and A-19.
Transit Network and Service Levels	Consistent with C-TRAN's Transit Development Plan and 20-year planning process	See description of assumed transit hours of service in MTP Appendix A, page A-18. Transit fare assumptions are consistent with assumed inflation rate. Transit fares are an input within the mode-split process of the regional travel forecast model. Parking costs are assumed to increase as a Transportation Demand Management (TDM) measure between existing and future models. This results in an increase in the percentage of trips by transit and influences transit ridership numbers.
Transportation Control Measures (TCMs)	TCMs are not required in the Vancouver Air Quality Maintenance Area (AQMA). The State Implementation Plan (SIP) does, however, include transportation contingency measures to reduce emissions in the area, if needed.	See MTP Chapter 5, page 5-13.
Technical Analysis Procedures for Mobile Emissions	The process for estimating regional emissions for the regional conformity analysis involves the integration of land use and travel demand modeling with EPA Mobile 6.2.01 emissions factor model.	See Appendix A, page A-30
Consultation Process	RTC routinely coordinates with the	Among the items discussed are air

Key Assumptions In MTP Regional Air Quality Conformity		
Assumptions	**Notes**	**MTP**
	local clean air agency, Southwest Clean Air Agency (SWCAA). On June 14, 2000, a major consultation meeting was held that included representatives of RTC, FHWA, EPA, DOE and WSDOT. Since then, RTC has participated, on an as-needed basis, in the quarterly conference calls and meetings of the air quality coordination consultation team. The team includes WSDOT, FHWA, FTA, MPOs, clean air agencies and the State Department of Ecology. RTC participates as specific conformity issues arise. RTC has participated in consultation gatherings in June and December 2003, January and June 2004, March and September of 2005.	quality program updates, conformity requirements, status of emissions models, latest emissions model use, the mobile emissions estimation process, conformity methodology and regional travel forecast model use. Air quality analysis process and methodology is consistent throughout the Portland-Vancouver region.
RTC Board approval		RTC Board provides policy direction regarding regional travel model inputs and also adopts the MTP which describes the policies and demographic assumptions that are the foundation for future transportation needs analysis.

Figure A-1: RTC Travel Model Process for Mobile Source Emissions Estimates





APPENDIX B

THE STRATEGIC METROPOLITAN TRANSPORTATION PLAN (MTP)

RTC Board approval is required for projects and concepts to be listed in the Strategic Plan. The Strategic Plan projects and planning concepts may be identified through study recommendations outside of the MTP but must have been the result of a public planning process. RTC action on the Strategic MTP can occur as part of action on the full MTP or as a separate action on only the Strategic MTP Appendix.

Though it is required that the MTP be fiscally constrained, federal rules governing MTP development do allow for the MTP to include "illustrative projects" that the region recognizes may be needed as a part of the future regional transportation system. The purpose of including an MTP Strategic Plan is to recognize that there are a number of emerging, long-term regional transportation projects that require major transportation and land use policy decisions coupled with financial commitment that are outside of the fiscally-constrained MTP. However, the Strategic Plan element acknowledges the importance of beginning a process that can examine these potential projects' impacts, their benefits and their contribution toward achieving the region's long-range, 20+ year, land use and transportation system vision and goals. The MTP's Strategic Plan allows for the planning, land use, and financing analysis to move forward without formally incorporating them into the federally approved MTP at this time.

The Strategic Plan is included as an Appendix to the MTP to provide a description of potential projects and concepts that are currently beyond the list contained in the approved, "financially constrained" MTP. These are potential projects and concepts that require additional investigation and analysis. They may be projects of large scale that need further work to determine their financing, and/or projects that may be of economic significance to the region that require further analysis and definition. The Strategic Plan may also provide an outline of concepts that have emerged in the planning process that could have significant land use, economic development and transportation system impacts if they were implemented and developed in the future. While projects that are outlined in the Strategic Plan are outside of the financially-constrained MTP, their inclusion in the Strategic Plan provides a way to identify the concepts and transportation projects that require further analysis to define their purpose/need and feasibility. Description of the potential projects and concepts in the MTP's Strategic Plan also helps to raise awareness in the community regarding emerging land use and transportation issues.

The MTP Strategic Plan outlines three major regional projects and/or planning concepts. They are: A) the Columbia River Crossing project, B) High Capacity Transit Corridors, and C) the Port of Vancouver's Economic Development and Conservation Plan. In addition, a fourth section, D), lists future needs of the regional transportation system that have been noted during development of the 2005 MTP update.

The region's adopted long-range Metropolitan Transportation Plan must include a financial plan that shows how projects are to be implemented. The financial plan includes revenues from public and private sources and additional funding strategies in order for the region to be eligible for federal transportation revenues. The Federal Transportation Act, SAFETEA-LU, allows for "illustrative projects" to be identified in the regional transportation planning process outside of the requirements for financial feasibility and transportation air quality conformity. The first three projects/concepts will undergo a regionally coordinated, analytically sound, transportation planning process to investigate project feasibility.

A) COLUMBIA RIVER CROSSING

- **Need and Purpose** – Due to highway capacity limitations and the three-lane bottleneck at the I-5 Interstate Bridge, traffic congestion is causing businesses and individuals to experience long delays. Without improvements, congestion will increase to unacceptable levels having a significant impact on the economy and potentially limiting the attraction and retention of business and industry. A set of multi-modal improvements are needed in the corridor.

- **Description** – The Columbia River Crossing project (CRC) is now underway which evolved from the previous Portland-Vancouver I-5 Transportation and Trade Partnership. The CRC is aimed at improving the mobility, reliability, and accessibility for automobile, freight, transit, bicycle, and pedestrian users of the I-5 corridor from State Route 500 in Vancouver to approximately Columbia Boulevard in Portland. The CRC's process will include examination of bridge capacity and analysis of a range of modal options.

  Specific steps in the process are:
  - Define the problem and identify criteria for evaluating alternatives.
  - Identify a broad range of alternatives.
  - Identify alternatives to be studied in the Draft Environmental Impact Statement (DEIS).
  - Complete the DEIS.
  - Identify the preferred alternative.
  - Secure federal approval for the preferred alternative.

- **Land Use/Economic Development Impacts** – The bi-state transportation and land use systems are integrally related, each impacts and influences the other. Bi-state coordination among jurisdictions and agencies in pursuing economic development is a key part of maintaining a strong economy. Additional capacity across the Columbia River will improve the flow of freight and goods throughout the corridor. Specifically, it will improve access to/from industrial destinations such as the Port of Vancouver, Rivergate and the Columbia Corridor. Access would also be improved to and from major employment centers such as downtown Vancouver, downtown Portland, Lloyd Center, Swan Island and the Columbia Corridor.

- **Financial Impacts** – Financing the highway and other modal improvements will be expensive. Capital projects of such magnitude are likely to require a variety of funding and financing mechanisms. There are promising federal, state and local revenue sources that, when combined, could provide the ability to bond the capital cost of the project.

- **Next Steps** – CRC recommendations will need to be incorporated into Metro and RTC's long-range regional transportation plans once specific projects are identified and funding plan developed.

B) HIGH CAPACITY TRANSIT CORRIDORS

- **Need and Purpose** – High levels of traffic congestion and a constrained ability to expand highway capacity in parts of the I-5, I-205 and SR-500 corridors along with Clark County's growth management policies calls for the analysis of high capacity transit alternatives. The high demand for travel between the Vancouver and Portland metropolitan area and across the limited capacity of the existing I-5 and I-205 bridges has also created a transportation system bottleneck between the two regions that dramatically increases delay for commuters, business and industry. The I-5 and I-205 corridors provide only marginal room for freeway expansion. Additional high capacity transit can significantly add person-moving capacity for commuters and allow for improved business and economic development capacity.
- **Description** – The regional transportation policy direction surrounding the issue of high capacity transit, including corridors and alternative high capacity transit modes, has been an uncertain part of the regional transportation system for the last 10 years. In late November of 2004, the 2005 federal transportation appropriation bill included a $1.488 million earmark to RTC for the analysis of the I-5/I-205/SR-500 transit loop. The funding could be used to assist the RTC Board in facilitating a broad discussion with affected Clark County agencies on modal alternatives for future high capacity corridors within Clark County and how the system could connect to transit across the Columbia River. The anticipated products of the analysis would lead to a set of high capacity transit policies that would balance the land use policies, transit priorities, and regional transportation system priorities to help policy makers determine whether a high capacity transit component is needed in Clark County and to guide development of RTC's long-range regional transportation system plan.

  The technical analysis and policymaking process would require the support and participation of RTC member jurisdictions with land use, transportation, and transit authority who would be impacted by the HCT policies. One of the first tasks of the proposed project would include providing information, soliciting input, and developing a consensus on the HCT study's scope of work. Anticipated products could include the following: information on the feasibility of a range of high capacity transit options within Clark County, re-designation of high capacity corridors in the MTP, connection to any high capacity transit solution that may result from the CRC Project, and preliminary financial information.

- **Land Use and Economic Impacts** – Additional person-moving capacity in both of the interstate corridors can help to improve the business and freight moving capacity of the corridors. The access provided by a high capacity transit alternative could provide further economic development opportunities in downtown Vancouver and redevelopment opportunities along Fourth Plain. The expansion in the level of transit service could also help development of compact urban growth and the preservation of forestland and open space.

- **Financial Impacts** – Financing high capacity transit alternatives will be expensive and will likely depend on additional local revenues approved through a public vote. In addition to the increase in local revenue, considerable federal support will be needed. The financial plan for any proposed project would need to be complete by the time a project completes the environmental and design phase.
- **Next Steps** – Before any analysis of HCT can move ahead there needs to be RTC Board approval for this work element to be included in RTC's Work Plan for 2006.

C) PORT OF VANCOUVER'S ECONOMIC DEVELOPMENT & CONSERVATION PLAN

- Successful Port operations depend on efficient freight mobility by rail, road and river. Rail and road systems are reaching capacity and can constrain existing business, future development and new economic prospects for the Port of Vancouver. The Port of Vancouver is analyzing rail and road improvements as part of the planning process for its Economic Development & Conservation Plan. The Port of Vancouver is conducting a thorough environmental assessment of proposed new development through the NEPA process anticipated to conclude in 2007. Already, rail access to the Port of Vancouver is capacity constrained under current peak traffic levels. Existing rail access is not sufficient to handle future Columbia Gateway traffic without impacting BNSF's mainline rail. The Port has recently focused attention on rail access improvement with a Simulation and Access Study of a number of conceptual rail alignments. Once the project is defined it may be included in the financially-constrained MTP in a future MTP update.

D) THE REGIONAL TRANSPORTATION SYSTEM: FUTURE NEEDS

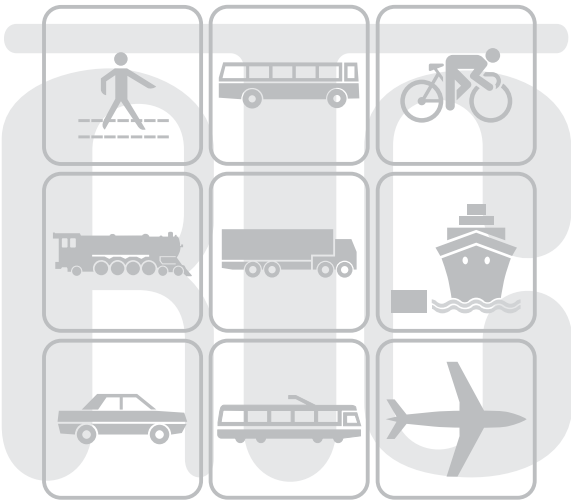
- The 2030 travel demand analysis shows that future volumes could exceed capacities on several corridor segments and locations where transportation projects are not currently identified. These need further consideration and analysis, within the constraints of funding availability, as part of the comprehensive planning process and 2006 MTP update.
- As part of the 2005 MTP update process, specific locations and corridors needing further analysis were identified as:
    - SR-500/SR-503/Fourth Plain intersection.
    - SR-500 to I-5 North connection.
    - Connection between Battle Ground and Ridgefield (possibly using 239th Street alignment.
    - North/South connections between Vancouver and north Clark County including SR-503 corridor segments from SR-500 to Brush Prairie and SR-503 from SR-502 to 254th Street vicinity; the NE 72nd Avenue corridor from 133rd to 199th Street and in the Daybreak area.

[3] This will be looked at in the ongoing Comprehensive Plan update process.

- Future needs may also include potential C-TRAN projects that are not currently part of the fiscally constrained MTP. These include the Central County Park-and-Ride, Ridgefield Park-and-Ride, SR-502 Park-and-Ride, 179th Street Park-and-Ride, Downtown Vancouver Transit Center, and expansion of the Fisher's Landing Transit Center. C-TRAN anticipates completion of a 20-year Transit Development Plan in 2006.

- **Next Steps** – The potential projects, listed above, will be analyzed further as part of the Comprehensive Growth Management planning process and MTP update in 2006. If projects are feasible, and there is funding capability, then projects can become part of the "fiscally-constrained" MTP.

MTP APPENDIX A....1
TRANSPORTATION CAPACITY IMPROVEMENTS ASSUMED IN MTP NETWORK AND AIR QUALITY ANALYSIS....1
Table A-1: Metropolitan Transportation Plan (MTP) Update (2005)....2
Projects Assumed to be Completed by 2030....2
Table A-2: Other Transportation System Development Elements....17
APPENDIX A-1....20
Table A-3: Regional Prioritization of Corridors and Projects (will be revised in 2006)....20
APPENDIX A-2....21
Table A-4: Measures to Implement TDM and TSM....21
Clean Air Conformity Determination....22
AIR QUALITY CONFORMITY STATEMENT....22
Background....22
Air Quality Status....22
Applicable State Implementation Plan....22
Consultation Process....22
Air Quality Conformity Methodology and Results....23
Table A-5: 2005 Metropolitan Transportation Plan: Air Quality Conformity Results Daily Emissions Estimates for Clark County AQ (maximum emissions)....23
Status of Transportation Control Measures....23
Table A-6: Air Quality Conformity: Key Assumptions....24
Figure A-1: RTC Travel Model Process for Mobile Source Emissions Estimates....26
APPENDIX B....1
THE STRATEGIC METROPOLITAN TRANSPORTATION PLAN (MTP)....2
A) Columbia River Crossing....3
B) High Capacity Transit Corridors....4
C) Port of Vancouver's Economic Development & Conservation Plan....5
D) The Regional Transportation System: Future Needs....5



MTP APPENDIX C

Excerpts from Clark County's adopted *Community Framework Plan* and the County-wide Planning Policies relating to transportation from the transportation element of the *Comprehensive Growth Management Plan for Clark* County (September 2004) are re-printed below. These constitute the Principles and Guidelines with which the transportation elements of local comprehensive plans required under the Growth Management Act are reviewed for certification purposes.

From the Comprehensive Growth Management Plan for Clark County (adopted 1994, updated August 2004).

COMMUNITY FRAMEWORK PLAN

The Community Framework Plan and the comprehensive plans of the county and its cities envision a shift in emphasis from a transportation system based on private, single-occupant vehicles to one based on alternative, higher-occupancy travel modes such as ridesharing, public transit, and non-polluting alternatives such as walking, bicycling and telecommuting. This shift occurred due to changes in funding constraints at the federal and state level as well as consideration of the thirteen GMA planning goals contained in 36.70A.020 RCW.

Regional policies are applicable county-wide. Urban policies only apply to areas within adopted urban growth areas (UGA's) and are supplemental to any city policies. Rural policies apply to all areas outside adopted UGAs.

5.0 COUNTY-WIDE PLANNING POLICIES

5.0.1 Clark County, Metropolitan Planning Organization (MPO) and the Regional Transportation Planning Organization (RTPO), state, bi-state, municipalities, and C-TRAN shall work together to establish a truly regional transportation system which:

- reduces reliance on single occupancy vehicle transportation through development of a balanced transportation system which emphasizes transit, high capacity transit, bicycle and pedestrian improvements, and transportation demand management;
- encourages energy efficiency;
- recognizes financial constraints; and
- minimizes environmental impacts of the transportation systems development, operation and maintenance.

5.0.2 Regional and bi-state transportation facilities shall be planned for within the context of county-wide and bi-state air, land and water resources.

5.0.3 The State, MPO/RTPO, County and the municipalities shall adequately assess the impacts of regional transportation facilities to maximize the benefits to the region and local communities.

5.0.4 The State, MPO/RTPO, County and the municipalities shall strive, through transportation system management strategies, to optimize the use of and maintain existing roads to minimize the construction costs and impact associated with roadway facility expansion.

5.0.5 The County, local municipalities and MPO/RTPO shall, to the greatest extent possible, establish consistent roadway standards, level of service standards and methodologies, and functional classification schemes to ensure consistency throughout the region.

5.0.6 The County, local municipalities, C-TRAN and MPO/RTPO shall work together with the business community to develop a transportation demand management strategy to meet the goals of state and federal legislation relating to transportation.

5.0.7 The State, MPO/RTPO, County, local municipalities and C-TRAN shall work cooperatively to consider the development of transportation corridors for high capacity transit and adjacent land uses that support such facilities.

5.0.8 The State, County, MPO/RTPO and local municipalities shall work together to establish a regional transportation system which is planned, balanced and compatible with planned land use densities; these agencies and local municipalities will work together to ensure coordinated transportation and land use planning to achieve adequate mobility and movement of goods and people.

5.0.9 State or regional facilities that generate substantial travel demand should be sited along or near major transportation and/or public transit corridors.