### Chapter 1: Introduction

#### 1.1 About This Document

This report documents existing conditions and assesses future needs for Washington County’s transportation system. The primary purpose of this report is to inform policy recommendations to be included in the new Washington County 2035 Transportation System Plan (TSP 2035). It is envisioned that parts of this report will be incorporated into the main body of the adopted TSP 2035 or its appendices. Other parts of this report may be folded into a background document or into separate documents that handle specific issues.

This report begins with a discussion of transportation policy considerations and countywide growth trends, then moves into detailed descriptions of transportation facilities and performance for all modes of conveyance, from motorized transportation and freight movement to bicycle, pedestrian and transit options.

While Washington County’s emphasis is on the transportation facilities that it owns and maintains, this report (as well as the larger plan) must consider existing and future conditions on all transportation facilities in the county, including Oregon Department of Transportation (ODOT) freeways and arterial roads, multi-use trails through park district lands, privately-owned railroads, and transit routes operated by TriMet or other transit agencies.

This report documents and responds to changes in the state and regional transportation policy context, in particular Metro’s 2035 Regional Transportation Plan (RTP) and its constituent documents. This report also accounts for the latest planning efforts at the local level, including city TSPs, county community plan areas and park district trail plans.

For a majority of the quantitative data measured in this report, the baseline year is 2010, corresponding with the most recently available regional travel demand model and census data. More recent figures are provided for other elements, such as traffic counts. The forecast year for the plan, in concordance with the Metro RTP, is 2035.

Unlike the previous version of the TSP (Washington County 2020 Transportation Plan, adopted in 2002), this report merges existing conditions and future needs into one cohesive document, rather than treat them in two separate reports. Content is organized as follows:

- Chapter 1: Introduction
- Chapter 2: Roadways
- Chapter 3: Transportation System Management Options and Travel Demand Management
- Chapter 4: Active Transportation and Transit
- Chapter 5: Goods Movement and Aviation
- Appendices with more detailed data and technical information

Funding considerations, alternative transportation scenario testing, and selection of a preferred transportation alternative will be treated in subsequent reports.
1.2 Planning Context

Public policies at the state, regional, county and local levels provide policy direction and legal requirements for transportation planning in Washington County. This section summarizes pertinent transportation policies at multiple levels of government, as well as planning efforts (such as land use plans) that have significant impacts on transportation planning and the system itself.

1.2.1 State Transportation Planning Policies

Transportation Planning Rule

Oregon Administrative Rule 660-012-0000 is referred to as the Transportation Planning Rule (TPR). It implements Statewide Planning Goal 12: Transportation. The purpose of the TPR is to ensure adequate coordination of transportation and land use planning both for TSPs and in project development. The TPR is the legislative mandate that requires Washington County to prepare and update its TSP. The TPR has been amended three times since the adoption of the last Washington County TSP:

- The 2005 Amendments (660-012-0060 and 660-012-0005) specify measures that jurisdictions must take when adopting changes to land use documents that have the potential to affect the performance of an existing or planned transportation facility.

- The 2006 Amendments (660-012-0035, 660-012-0055) clarify that Metropolitan Planning Organizations (such as Metro) must adopt standards to measure progress for increasing transportation choices and reducing automobile reliance. Local TSPs are required to comply with these regional goals. The 2006 amendments also require local governments to comply with regional efforts to adopt integrated land use and transportation strategies. Finally, these amendments specify that local governments must update TSPs within one year of an updated Regional Transportation Plan.

- The 2011 Amendments (660-012-0010) specify that local governments can designate “multi-modal mixed-use areas” (MMAs) where traffic congestion does not have to be considered for new developments or higher density zoning, provided that these areas.

Oregon Transportation Plan

The Oregon Transportation Plan (OTP) is the state’s long-range policy document that guides planning and project development for transportation in Oregon. The OTP was originally adopted in 1992 and most recently updated in 2006. As an update to the 1992 OTP, the 2006 OTP “provides a framework to further these policy objectives with emphasis on maintaining the assets in place, optimizing the existing system performance through technology and better system integration, [and] creating sustainable funding and investing in strategic capacity enhancements” (page iii). The OTP is supported by modal plans that help establish state transportation system investment priorities.

Oregon Highway Plan

The Oregon Highway Plan (OHP) is the modal element of the OTP that sets visions, policies, and strategies for investing in state and federal highways in Oregon. The OHP was last adopted in 1999. Since the adoption of the
last Washington County TSP in 2002, there have been two major amendments to the OHP that affect Washington County:

- Amendments to **Policy 1B: Land Use and Transportation** create new access spacing standards for statewide, district and regional highways, as well as new definitions for “special transportation areas” (STAs), which have less stringent mobility standards. These modified definitions result in three STAs on state road segments in Washington County:
  - OR 47 (Tualatin Valley Highway) from milepost 16.06-16.67 in Cornelius
  - OR 47 (Tualatin Valley Highway) from milepost 25.34-26.54 in Gaston
  - OR 141 (Hall Blvd.) from milepost 2.84-3.84 in Beaverton, unincorporated Washington County, and Tigard

- Amendments to **Policy 1F: Highway Mobility** include new mobility targets for state highways within and outside of the Portland metro area urban growth boundary (UGB).

**Oregon Bicycle and Pedestrian Plan**

The Oregon Bicycle and Pedestrian Plan (Plan) was originally adopted in 1995 as a modal element of the Oregon Transportation Plan (OTP). It is the planning and design manual for pedestrian and bicycle transportation in Oregon and is used to implement the actions recommended by OTP. The technical section of the Plan was updated October 2010 and re-titled as the Bicycle and Pedestrian Design Guide to offer a greater level of guidance on the provision of bicycle and pedestrian facilities. The standards and designs shown in the plan -- ODOT standards used on state highway projects -- meet or exceed national standards. These standards are recommended but not required for use by local jurisdictions in Oregon. The overarching goal, actions, and strategies of the Oregon Bicycle and Pedestrian Plan relevant to the Washington County TSP are unchanged from the 1995 version of the Plan.

The Design Guide updated design standards for on-road bikeways, walkways, street crossings, intersections, shared use paths, restriping and bicycle parking. The County may choose to incorporate in TSP 2035 or its supporting documents methodologies for selecting type of bicycle facility based on context sensitive design guidelines. The Washington County Bicycle Facility Design Toolkit, completed in 2012, incorporates a variety of these and other design standards.

**Oregon Freight Plan**

The Oregon Freight Plan (OFP) is one of eight modal and topic plans (i.e., aviation, bicycle/pedestrian, highway, public transportation, ports, rail, freight and transportation safety) that help define and implement policies in the Oregon Transportation Plan (OTP). Up until its adoption in June 2011, freight was an element of the various modal and topic plans. This is the first state wide plan devoted entirely to freight.

Similar to the OTP, the OFP is needed to comply with federal and State of Oregon regulations. At the federal level, the OFP is required to comply with the current federal transportation act, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU); the Passenger Rail Investment and Improvement Act and Federal Aviation Administration policy and guidance for aviation system planning. At the state level, the OFP addresses freight needs as required under the Transportation Planning Rule, which also requires local governments to address goods movement in their TSPs in a fashion that is consistent with the state TSP.
1.2.2 Regional Transportation Planning

Metro 2035 Regional Transportation Plan

The 2035 Regional Transportation Plan (RTP) was adopted by the Joint Policy Advisory Committee on Transportation on June 10, 2010. Several companion plans are included in the RTP by reference; these include the Regional High Capacity Transit System Plan, the Regional Transportation System Management and Operations Plan, the Regional Freight Plan, and the 2035 RTP Technical Appendix.

The overall desired outcomes for the 2035 RTP are as follows:

- **Vibrant communities** – People live and work in vibrant communities where they can choose to walk for pleasure and to meet their everyday needs.
- **Economic prosperity** – Current and future residents benefit from the region’s sustained economic competitiveness and prosperity.
- **Safe and reliable transportation** – People have safe and reliable transportation choices that enhance their quality of life.
- **Leadership on climate change** – The region is a leader in minimizing contributions to global warming.
- **Clean air and water** – Current and future generations enjoy clean air, clean water and healthy ecosystems.
- **Equity** – The benefits and burdens of growth and change are distributed equitably.¹

There are several key items in the RTP that affect transportation planning in Washington County. These include the designation of mobility corridors, performance targets, modal targets, and mobility standards, all of which are described below.

- **Mobility corridors.** The 2035 RTP describes the Portland metro region in the context of 24 mobility corridors. Mobility corridors are major components of the Portland region where movement is important and should be facilitated to the degree and in the manner defined in RTP performance standards. The mobility corridor framework requires consideration of multiple facilities, modes, and land use when identifying solutions. There are nine mobility corridors in Washington County, shown in Figure 1-1. They are:
  - #21: Portland Central City to Beaverton
  - #24: Beaverton to Forest Grove
  - #22: Beaverton to North Plains
  - #23: Forest Grove to North Plains
  - #19: Beaverton to Tigard
  - #2: Portland to Tualatin
  - #20: Tigard and Tualatin to Sherwood
  - #3: Tualatin to Wilsonville
  - #7: Tualatin to Oregon City

¹ Metro 2035 RTP, page 2-2.
Figure 1-1: Metro Mobility Corridors

Source: [http://www.oregonmetro.gov/index.cfm/go/by.web/id=35555](http://www.oregonmetro.gov/index.cfm/go/by.web/id=35555)
• **Performance targets.** As part of its compliance with the TPR, the RTP provides specific regional performance targets for several categories relating to transportation. These targets must be acknowledged in *TSP 2035*. The regional targets below are excerpted from Table 2.3 of the Metro RTP.

  o **Safety** – By 2035, reduce the number of pedestrian, bicyclist, and motor vehicle occupant fatalities plus serious injuries each by 50% compared to 2005.
  o **Congestion** – By 2035, reduce vehicle hours of delay (VHD) per person by 10 percent compared to 2005.
  o **Freight reliability** – By 2035, reduce vehicle hours of delay truck trip by 10 percent compared to 2005.
  o **Climate change** – By 2035, reduce transportation-related carbon dioxide emissions by 40 percent below 1990 levels.
  o **Active transportation** – By 2035, triple walking, biking and transit mode share compared to 2005.
  o **Basic infrastructure** – By 2035, increase by 50 percent the number of essential destinations accessible within 30 minutes by trails, bicycling and public transit or within 15 minutes by sidewalks for all residents compared to 2005.
  o **Clean air** – By 2035, ensure zero percent population exposure to at-risk levels of air pollution.
  o **Travel** – By 2035, reduce vehicle miles traveled per person by 10 percent compared to 2005.
  o **Affordability** – By 2035, reduce the average household combined cost of housing and transportation by 25 percent compared to 2000.
  o **Access to daily needs** – By 2035, increase by 50 percent the number of essential destinations accessible within 30 minutes by bicycling and public transit for low-income, minority, senior and disabled populations compared to 2005.

• **Modal targets.** In addition to overall performance targets, the RTP provides modal targets for each land use type in the 2040 Growth Concept. In order to comply with the RTP, Washington County should be working towards these in order to implement the 2040 Growth Concept. Although these modal targets are intended to reflect an average for each design type throughout the Portland region by the year 2040, the targets are commonly viewed as being applicable to each design type area individually as described in Table 1. Regional modal targets are discussed further in Chapter 2.

• **Mobility policies.** The RTP includes interim mobility policies that define a standard volume-to-capacity ratio for different land use types within the urban growth boundary. Although these standards are labeled “interim,” they do apply to *TSP 2035* until Metro issues a revision to these policies. Figure 4 below shows the mobility standards. These are the same standards that are listed in Figure 2 from the OHP, and they have not changed since the last Washington County TSP was adopted in 2002. Regional mobility standards are discussed further in Chapter 2.
Metro Regional Transportation Functional Plan

The Metro Regional Transportation Functional Plan (RTFP) is chapter 3.08 of the Metro Code. It implements the RTP and includes design standards for streets, transit systems, pedestrian systems, bicycle systems, freight systems, and transportation system management and operations. The RTFP includes several requirements for city and county TSPs. The most recent version of the RTFP became effective in September 2010. Requirements for city and county TSPs within the RTFP are as follows (paraphrased from Titles 1-5 of the RTFP):

- **TSPs must include adoption of street design regulations** that are consistent with complete street designs, green street designs, and transit-supportive street designs. Street design regulations must allow implementation of pavement widths of less than 28 feet, sidewalk widths that include at least 5 feet of pedestrian through zones, landscaped pedestrian buffer strips, traffic calming devices, short and direct right-of-way routes and shared-use paths, opportunities to extend streets in an incremental fashion.

- **TSPs must include:**
  - Documentation of regional and state transportation needs, as listed in the RTP and the OTP
  - Analysis of existing conditions, gaps, and deficiencies for streets, bicycle facilities, pedestrian facilities, transit, freight, and transportation system management and operations (TSMO).
  - Identification of facilities that exceed regional mobility targets or alternative targets
  - Consideration and documentation of the needs of youth, seniors, people with disabilities, and environmental justice populations
  - Consideration of ways to meet documented needs using the following strategies in the order listed, and documentation of the reasons each was chosen or not chosen:
    - TSMO strategies
    - Transit, bicycle, and pedestrian system improvements
    - Traffic calming designs and devices
    - Land use strategies
    - Connectivity improvements to the street network that include improvements to pedestrian and bicycle facilities
    - Motor vehicle capacity improvements
  - Performance measures for safety, vehicle miles traveled per capita, freight reliability, congestion, bicycling, walking, and transit mode shares
  - Parking ratios for motor vehicle and bicycle parking
Regional High Capacity Transit System Plan

The Regional High Capacity Transit (HCT) System Plan was adopted by Metro in 2009. This plan, which was incorporated into the Regional Transportation Plan in 2010, provides an outline of the regional goals and aspirations for high capacity transit. The HCT system plan established near-term priorities and adopted a system expansion policy. Furthermore, the planning process evaluated the benefits of high capacity transit to our local communities.

Potential high-capacity transit corridors are organized into four tiers based on the 2009 assessment of the system expansion targets described above. The HCT plan calls for a focus on three transit corridors for investment in the near-term, two of which are in Washington County:

- A corridor in the vicinity of Powell Boulevard, connecting Gresham to downtown Portland;
- The “Southwest Corridor” in the vicinity of Barbur Boulevard/Highway 99, connecting downtown Portland to Tigard and possibly Sherwood; and
- The WES commuter rail corridor that connects Beaverton to Wilsonville, which could see WES service upgraded to all day service with trains running at 15-minute intervals.

As part of the Regional Transportation Functional Plan, counties and cities are required to be consistent with regional Transit System Design and Parking Management Policies, several of which have additional requirements in the vicinity of High Capacity Transit station areas.

RTP Freight Component

The Regional Freight Plan 2035 is one of several RTP-related plans whose policies and strategies have been integrated into the larger 2035 RTP, the others being The Regional Transportation System Management and Operations Plan and The High Capacity Transit Plan. These policies are included in chapter 2 of the 2035 RTP and are as follows:

- Use a systems approach to plan for and manage the freight network
- Reduce delay and increase reliability
- Protect industrial lands and freight transportation investments
- Look beyond the roadway network to address critical marine and rail needs
- Pursue clean, green and smart technologies and practices

RTP TSMO Component

Transportation system management options (TSMO) is a combination of transportation system management and transportation demand management strategies that are intended to improve transportation system performance at a lower cost than traditional capital investments such as new transit service, roads or additional roadway lanes.

The four policies below form the foundation of the RTP approach to TSMO:

- Use advanced technologies, pricing strategies and other tools to actively manage the transportation system
- Provide comprehensive real-time traveler information to people and businesses
• Improve incident detection and clearance times on the region’s transit, arterial and throughway networks
• Implement incentives and programs to increase awareness of travel options and incent change

Urban and Rural Reserves

The urban and rural reserves regional planning effort began in 2008 and concluded with acknowledgment of project outcomes by the Land Conservation and Development Commission (LCDC) in October of 2011. Urban reserves were established in the three metropolitan counties as areas in which future urbanization would occur in the region. Those urban reserves requested for inclusion in the Urban Growth Boundary in Washington County must have a city willing to plan and govern the areas. The cities of Hillsboro, Beaverton and Tigard have significant reserves available, and Sherwood, Tualatin, Forest Grove, King City and Cornelius have lesser amounts.

Transportation systems within these new urban areas will be planned and developed under the respective cities' jurisdiction. Ultimately, city and county TSPs will need to include provisions for facilities and services necessary to adequately serve the newly urban areas.

Climate Smart Communities Scenarios Project

This three-phase planning effort responds to the Jobs and Transportation Act (House Bill 2001) passed in 2009. Section 37 of the Act requires Metro to adopt a preferred land use and transportation scenario by 2014 that is designed to accommodate planned population and job growth while reducing greenhouse gas emissions to a particular target by 2035. Section 37 also calls for local governments in the Portland metropolitan region to implement the adopted scenario.

Phase 1 was completed January, 2012. Phase 1 focused on understanding the region’s land use and transportation choices by conducting a review of published research and testing 144 regional scenarios. The analysis demonstrated the GHG emissions reduction potential of current plans and policies, as well as which combinations of more ambitious land use and transportation strategies are needed to meet the state target.

Phase 2 is currently underway and is aimed at designing and evaluating more customized alternative scenarios. This phase will examine the benefits, impacts, costs and savings associated with different strategies for meeting environmental, economic and equity goals. Case studies will be developed to illustrate potential community effects. The final phase, which is scheduled to be completed in 2014, will build and select a preferred scenario as well as define policies, investments and actions needed to implement the preferred scenario.

A variety of strategies from six categories were tested during Phase 1. The strategies address community design, pricing, technology, fleet, marketing and incentives, and roads. The following transportation system-related strategies were considered:

• Reducing delay through traffic management;
• Potential limitation on arterial and freeway expansion;
• Emphasis on transit and bicycle mode shares; and
• Potential pricing of parking and vehicle road-use.

A combination of these and other strategies are anticipated to make-up the final preferred scenario. Implementation of the adopted scenario will probably entail a significant update of the Regional Transportation Plan sometime soon after the year 2014.
Completion of the county’s 2035 TSP update in the fall of 2013 will precede the completion of the Climate Smart Communities Scenario Project, which will therefore need to be addressed in a subsequent TSP update. Ultimately, city and county TSPs will need to include policies and strategies outlined in the preferred scenario and be consistent with the region’s GHG reduction targets.

**Southwest Corridor Plan**

The Southwest Corridor Plan integrates multiple planning efforts in a broad transportation corridor extending from downtown Portland to the city of Sherwood. These include local land use plans developed to support livable communities; a corridor refinement plan to examine the function, mode and general location of transportation improvements; and the transit alternatives analysis to define the best mode and alignment of high capacity transit to serve the corridor. Southwest Corridor planning work is undertaken through a partnership that includes Metro, Multnomah County, Washington County, the Oregon Department of Transportation, TriMet and the cities of Portland, Sherwood, Tigard, Tualatin, Beaverton, Durham, King City and Lake Oswego.

**TV Highway Corridor Refinement Plan**

This study of the Tualatin Valley Highway Corridor (Beaverton to Hillsboro, Baseline Road to Farmington Road) is being conducted by the City of Hillsboro and ODOT. The effort began in March of 2011, concurrently with the Aloha-Reedville Study. The two studies are being closely coordinated. The first phase of the TV Highway work, the Corridor Plan, concluded in the summer of 2012 with recommendations or decisions on the long term function of TV Highway. An initial recommendation is to retain the four through-lanes (plus turning lanes) that exists today and seek improvements through safety, timing and transit access refinements. The second phase, the Focus Area Plan, will continue analysis of impacts associated with future development of South Hillsboro.
1.2.3 Washington County Plans

Washington County Comprehensive Plan

The Washington County Comprehensive Plan provides the basis for the future growth and development of the County. The Comprehensive Plan includes two primary policy documents, the 1) Comprehensive Framework Plan for the Urban Area (CFP) and 2) the Rural/Natural Resource Plan. Other more specific elements of the Comprehensive Plan are the Community Plans, the Transportation System Plan, Public Facility Plan and Capital Improvement Plan.

The CFP contains policies and strategies specifically designed to address growth and development issues for areas of the County inside the regional urban growth boundary. The Rural/Natural Resource Plan contains policies and strategies intended to guide resource conservation and development for lands outside the urban growth boundaries.

The CFP and the Rural/Natural Resource Plan provide the framework of policies and strategies to be used as the basis for more specific planning activities, functional elements (e.g. transportation, housing, solid waste), community Plans, regulatory ordinances, capital improvement programs, etc.

Washington County 2020 Transportation Plan

The Washington County 2020 Transportation Plan is one element of the County's Comprehensive Plan. The plan was initially adopted in 2002 through Ordinance 588A and has been periodically amended since then. Plan policies, strategies and system improvements were designed to meet existing and future travel needs associated with projected population and employment growth through the year 2020.

2020 Transportation Plan and its related documents are intended to help achieve Statewide Planning Goal 12; Transportation. More specific guidance toward this end is provided by the State Transportation Planning Rule (TPR) (Oregon Administrative Rule 660-012-0000). Like other local governments in the Portland Metro Area, Washington County achieves many of these state planning requirements indirectly, by addressing provisions of Metro’s Regional Transportation Plan.

2020 Transportation Plan identifies general policies, strategies and system improvements necessary to address travel needs, system safety, impacts on the built and natural environment, system funding, and system implementation and plan management. The plan also includes more specific policies and strategies pertaining to the roadways, transit, demand management, pedestrians, bicycles, freight, and air, rail, pipeline and water elements. It identifies system needs under each of these elements through the year 2020, and identifies alternatives for financing improvements necessary to address identified needs.

2020 Transportation Plan is supplemented by and used in conjunction with other Comprehensive Plan documents, including the County’s Uniform Road Improvement Design Standards, Community Development Code and Community Plans (County Code Chapter 15).

2020 Transportation Plan has been modified through 17 separate ordinances since its initial adoption in 2002. Most of these ordinances included more than one plan modification, generally focusing on policy or strategy changes, modifying the designation or alignment of specific transportation facilities, or changing process provisions to clarify or modify existing language. The seventeen actions affected provisions in:
Washington County Bike and Pedestrian Plan

This document organizes bicycle and pedestrian elements adopted as part of the Washington County 2020 Transportation Plan in a more focused and accessible form. During discussion of bicycle and pedestrian issues in 2010 and 2011 it was determined that a separate document focusing on plan provisions associated with these two modes would be useful. The document is intended to reflect transportation plan provisions and is for informational purposes only. It has no regulatory or policy status of its own.

Washington County Public Facilities Plan

Cities and counties are required under ORS 197.712 to adopt public facility plans for areas within urban growth boundaries containing populations exceeding 2,500 persons.

Public facilities plans describe the water, sewer, storm drainage, and transportation facilities needed to support land use designations in local government comprehensive plans. Washington County maintains responsibility for public facility planning throughout those areas of urban, unincorporated Washington County that are not either formally incorporated within the city limits or covered by an Urban Planning Area Agreement (UPAA) with a municipality.

For transportation facilities, however, the state transportation planning rule (TPR) states that transportation system plans adopted pursuant to TPR provisions fulfill state public facilities planning requirements (see 660-012-0000-4). The existing 2020 Transportation Plan is consistent with these provisions.

Washington County Community Development Code

The purpose of the Community Development Code (CDC) is to implement the Washington County Comprehensive Plan. Standards and requirements of the Community Plans, the Rural/Natural Resource Plan, and the Transportation Plan that are applicable to development applications are specified in the CDC.

The Community Development Code has been modified by 11 separate ordinances since the transportation plan was adopted in 2002. The transportation-related development standards were added or amended as described in Table 1-2:
Table 1-1: Washington County Ordinances Modifying the Transportation Plan

<table>
<thead>
<tr>
<th>Ordinance #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>607</td>
<td>Amended Articles V and VI of the CDC to require street lighting on new roads in the urban area.</td>
</tr>
<tr>
<td>631</td>
<td>Added institutional to the uses with seventy (70) feet or more of frontage to be permitted direct access to a Neighborhood Route.</td>
</tr>
<tr>
<td>642</td>
<td>Amended the CDC to clarify sidewalk standards in Transit Oriented Districts and added a reference to the Pedestrian Enhancements Design Guidelines.</td>
</tr>
<tr>
<td>677</td>
<td>Amended Articles V of the CDC to clarify that half-street improvements may be required outside of transit oriented districts at the discretion of the review authority.</td>
</tr>
<tr>
<td>682</td>
<td>Amended Article V of the CDC to provide additional safety criteria for public roadways outside the UGB.</td>
</tr>
<tr>
<td>695</td>
<td>Amended Article V relating to the pavement standards for local and neighborhood route streets and added a requirement for street lighting in conjunction with half-street improvements.</td>
</tr>
<tr>
<td>697</td>
<td>Amended Article V relating to half-street improvements.</td>
</tr>
<tr>
<td>712, 730, 739</td>
<td>712 added the North Bethany Subarea Plan, establishing a primary street network, a trails and accessway network, and conceptual design provisions for transportation facilities. 730 and 739 further refined the North Bethany Subarea Plan.</td>
</tr>
<tr>
<td>713</td>
<td>Added the ‘B’ Street Trail on the south side of Forest Grove.</td>
</tr>
<tr>
<td>717</td>
<td>Modified the planned street network and functional classifications in the Elmonica station area.</td>
</tr>
<tr>
<td>718</td>
<td>Amended Article V adding off-street trails and pathways as desirable services to be addressed in the land development process.</td>
</tr>
<tr>
<td>749</td>
<td>Adopted ODOT’s Brookwood Interchange Area Management Plan</td>
</tr>
<tr>
<td>750</td>
<td>Added a proposed SW 124th Avenue between Tualatin-Sherwood Road and Tonquin Road, to facilitate industrial development between Tualatin and Sherwood.</td>
</tr>
</tbody>
</table>

Washington County Community Plans

Community plans provide specific land use designations on properties within the urban unincorporated areas of the County as well as detailed policy direction to guide development based upon community needs and desires. The policy framework of the CFP is reflected in the specific Community Plans. A Community Plan is the legally binding statement of County policy within the boundaries of the planning area. With regard to transportation matters, if there is a conflict between a provision in the community plan and a provision in the transportation plan, the transportation plan provision applies.

The following community plans have been developed:

- Aloha-Reedville-Cooper Mountain Community Plan
- Bethany Community Plan
- Bull Mountain Community Plan
- Cedar Hills-Cedar Mill Community Plan
- East Hillsboro Community Plan
- Metzger-Progress Community Plan
- Raleigh Hills-Garden Home Community Plan
North Bethany Subarea Plan

Since September 2006, Washington County staff, a consultant group, two citizen-driven advisory groups and interested Washington County residents have worked to develop plans for the North Bethany area. First a Concept Plan was developed. Following adoption by the Board of Commissioners, the Concept Plan was refined through development of the comprehensive plan and community development code provisions necessary for its implementation. Amendments to the Washington County 2020 Transportation Plan were adopted through A-Engrossed Ordinance No. 712 in 2009. These amendments included changes to the Functional Classification System map to reflect newly proposed arterial, collector and neighborhood routes, changes to the Lane Numbers map and Study Areas map as well as the addition of an off-street trail to the Off-Street Trails System map. An infrastructure funding plan and further discussion of a range of outstanding issues followed.

Aloha Reedville (AR) Study and Livable Community Plan

A three-year community planning effort for this large area of urban unincorporated Washington County began in March 2011, and has a wide-ranging set of objectives. Among the transportation-related deliverables for this project will be a bike/pedestrian plan and streetscape improvement plan. There will also be a significant focus on improving connectivity through identification of sidewalk gaps and pedestrian safety issues, gaps in bike paths and related safety issues, transit access issues and connections to regional bike and pedestrian trails. Other areas of focus include economic redevelopment and affordable housing strategies. This Aloha-Reedville effort is being closely coordinated with the TV Highway Corridor Refinement Plan and Focus Area Plan being conducted by the City of Hillsboro and ODOT. Outcomes of the TV Highway effort will significantly affect the AR Study planning process.
1.2.4 City Plans

There are 16 cities wholly or partially located in Washington County:

- Banks
- Beaverton
- Cornelius
- Durham
- Forest Grove
- Gaston
- Hillsboro
- King City
- Lake Oswego
- North Plains
- Portland
- River Grove
- Sherwood
- Tigard
- Tualatin
- Wilsonville

Cities are generally responsible for the transportation system within their boundaries, with the exception of transportation facilities under the jurisdiction of the state or county. In those cases the agency with jurisdiction over the facility retains authority and responsibility for its maintenance and improvement.

Given the interdependence of city, county and state transportation facilities and services, coordination of system design, system improvement and system management policies and practices is vitally important. This coordination occurs in a couple of ways:

- Through formal arrangements such as Urban Planning Area Agreements (UPAAs) or other intergovernmental agreements that specifically define local government relationships and responsibilities.
- Through mechanisms that are currently in place to ensure on-going and active coordination, including the Washington County Coordinating Committee (the WCCC, which is composed of elected officials) and the WCCC Transportation Advisory Committee (The WCCC TAC, which is composed of senior planning or engineering staff).

Other city efforts that affect transportation planning include land use concept plans. Two major, city-led efforts are underway in this category:

**South Hillsboro Plan**

Planning for this new, approximately 1,400 acre, urban community is under the City of Hillsboro's jurisdiction. It is south of and adjacent to Tualatin Valley Highway and adjacent to and west of Aloha. The concept plan approved by the Hillsboro City Council estimates 11,000+ new homes and 625,000+ square feet of commercial space.

**Basalt Creek Transportation Refinement Plan**

Prior to identifying land uses and urban development opportunities and concepts in the area between Sherwood, Wilsonville and Tualatin (the Basalt Creek and West Railroad areas), the cities of Tualatin and Wilsonville are collaborating with Washington County and Metro to define the future major transportation infrastructure needed in this area consistent with the RTP. Once the major network has been identified, the cities will address local street circulation and access during the concept planning process, which will begin later in 2012.
1.3 CHANGES IN WASHINGTON COUNTY

Washington County in 2012 is not the same place it was in 2002. This section documents changes in population, employment, travel demand and land use over the past decade, and projects those trends into the future.

1.3.1 Changes in Population and Employment

Historic Growth Rates

Washington County has grown considerably during the last 40 years. As indicated in Figure 1-2 and Table 1-4 below. Since 1970 the population within Washington County (including within cities) has increased from 311,544 to 532,620 an increase of 71 percent or just over 221,000 residents. Employment since 1970 within Washington County (including within cities) has increased from 180,302 to 232,019 an increase of 29 percent or 51,717 jobs.

Comparison to 2002 Plan

The 2002 Transportation System Plan (TSP) estimated that the population of Washington County would increase to approximately 544,000 by 2010. This estimate was 11,380 more than actual (about 2% high).

Recession

The County has experienced a significant increase in jobs over the 20 years between 1990 and 2010 in spite of the national economic down turn. During this time period, total jobs in Washington County increased from 180,302 to 232,019. This change represents an increase of nearly 29 percent, or 51,717 jobs. From a long term planning point of view, Washington County is expected to recover from the recent recession and continue to gain jobs at a relatively rapid pace.

Forecast

Washington County’s dramatic growth rate over the past 40 years is expected to decline but continue above national average. The population of Washington County is expected to increase to 758,500 by 2035, an increase of 42 percent from 2010. This assumes holding an average annual growth of approximately 1.42% per year over the 25 year period. Employment is expected to increase at a faster rate than population, as the economy recovers from the current downturn. Employment is expected to increase to 382,812 jobs by 2035, an increase of 65 percent from 2010 (average annual growth rate of just over 2% per year for the 25 year period).
The 2035 population and employment forecast translate directly into transportation system needs within Washington County. Of particular significance for the transportation system is the employment growth. Travel most often occurs to, from, or between areas where employment is located. Population numbers are an important indication of the number of travelers, but employment drives the amount of travel by location. As can be seen in the traffic count trends reported in chapter 2, there has been limited growth in traffic counts between 2007 and 2012, while population has increased considerably during the same period.
Population and employment statistics and trends could encompass an entire report. A brief summary of several key elements related to travel for both population and employment are provided below.

**Population Statistics**

In 2010 there were approximately 199,000 households in Washington County. The average household size was 2.6 people.

**Figure 1-3: Types of Households in Washington County – 2010**

- Married-couple families: 52.8%
- People living alone: 25.9%
- Other families: 14.7%
- Other non-family households: 6.6%

The median age of Washington County residents in 2010 was 35.3 years. Twenty-six percent of the population was under 18 years of age, and 10 percent was 65 years or older.

**Figure 1-4: Age of Washington County Residents – 2010**

- Under 18: 25.6%
- 18 to 24: 8.2%
- 25 to 44: 31.2%
- 45 to 64: 25.1%
- Over 65: 9.9%
Employment Statistics

In 2010, over 90 percent of people 25 years and over had graduated from high school and 39 percent had a bachelor’s degree or higher. The total school enrollment in Washington County was about 146,000 students in 2010. Nursery school and kindergarten enrollment was about 16,000 and elementary or high school enrollment was 90,000. College or graduate school enrollment was about 40,000 residents.

Figure 1-5: Educational Attainment of Washington County Residents – 2010

Table 1-5 below shows the occupation of employed Washington County residents, 16 years and over, in 2010.

Table 1-3: Occupation of Washington County Residents – 2010¹

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management, business, science, and arts</td>
<td>109,032</td>
<td>42.7%</td>
</tr>
<tr>
<td>Service</td>
<td>39,958</td>
<td>15.6%</td>
</tr>
<tr>
<td>Sales and office</td>
<td>66,836</td>
<td>26.2%</td>
</tr>
<tr>
<td>Natural resources, construction and maintenance</td>
<td>18,237</td>
<td>7.1%</td>
</tr>
<tr>
<td>Production, transportation and material moving</td>
<td>21,452</td>
<td>8.4%</td>
</tr>
</tbody>
</table>

¹ Does match employment within Washington County; some residents work outside the County and some employees commute from outside the County.
In Washington County the employed population, 16 years and older, worked in the following industries:

**Figure 1-6: Industry of Washington County workers – 2010**

The highest category is educational services and health care with over 20% of the labor force. Second highest is manufacturing (which includes high-tech) with over 16% of the labor force. The construction sector still had 5% of the employed labor force even with the economic down turn in 2010.
1.3.2 Travel Demand

The Regional Transportation Plan (RTP) provides both a policy framework and regional transportation system elements and services that local governments must recognize and address in their transportation planning work. An understanding of some of the RTP provisions is helpful in understanding some provisions of the Washington County Transportation Plan.

While recognizing that the significant majority of trips will continue to be taken by automobile, the RTP places a premium on encouraging non-auto travel. As a result of RTP policies, facilities, services, and programs that support and encourage the development and use of non-auto travel, the percentage of daily trips taken by some means other than driving alone is expected to increase.

The currently adopted Washington County TSP supports these RTP policies. The table below describes the expected outcome from the implementation of the State RTP.

<table>
<thead>
<tr>
<th>Mode</th>
<th>2010</th>
<th>2035 RTP</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Person Trips</td>
<td>3,866,409</td>
<td>5,541,705</td>
<td>+43%</td>
</tr>
<tr>
<td>Auto</td>
<td>3,610,591</td>
<td>5,094,927</td>
<td>+41%</td>
</tr>
<tr>
<td>SOV</td>
<td>1,861,046</td>
<td>2,680,680</td>
<td>+44%</td>
</tr>
<tr>
<td>Shared Ride</td>
<td>1,749,546</td>
<td>2,414,247</td>
<td>+38%</td>
</tr>
<tr>
<td>Transit</td>
<td>68,719</td>
<td>130,709</td>
<td>+90%</td>
</tr>
<tr>
<td>Pedestrian</td>
<td>171,716</td>
<td>261,492</td>
<td>+52%</td>
</tr>
<tr>
<td>Bicycle</td>
<td>35,383</td>
<td>54,577</td>
<td>+54%</td>
</tr>
</tbody>
</table>

Notes: 1. Includes all daily trips that either start or end within Washington County, including the rural areas outside the Metro Boundary. Other chapters focus on urban travel and report fewer daily trips (only those within the urban area).
2. SOV – Single Occupancy Vehicle, a vehicle in which the driver is traveling alone (this is a subset of the Auto category).
3. Shared Ride – Includes both the drive and other passengers (this is a subset of the Auto category).
4. Yellow school bus trips are not included.
5. Pedestrian and Bicycle trips do not include travel for the purpose of exercise.

Achieving these results depends upon the facilities, services and strategies necessary to support this non-auto travel being in place. The RTP identifies local government and transportation service provider responsibilities in this regard. The Washington County Transportation Plan contains systems, services and strategies intended to recognize and respond to those provisions.
### 1.3.3 Land Use Patterns

**Metro 2040 Growth Concept**

The 2040 Growth Concept is the region's growth management policy; it defines development in the metropolitan region through the year 2040. The 2040 Growth Concept:

- encourages efficient land use, directing most development to existing urban centers and along existing major transportation corridors;
- promotes a balanced transportation system within the region that accommodates a variety of transportation options such as bicycling, walking, driving and public transit; and
- supports the region's goal of building complete communities by providing jobs and shopping close to where people live.

**Areas added to UGB since 2002**

In 2002, 18,867 acres were added to the urban growth boundary to provide 38,657 housing units and 2,671 acres for additional jobs. This action also created important regional policies to support neighborhoods, protect industrial areas and enhance regional and town centers. In 2004, an additional 1,956 acres were added to the boundary to address the need for industrial lands identified as part of the 2002 planning process. In 2005, the Metro Council added 345 acres of land for industrial purposes which completed the 2002 planning process.

In 2011, the Metro Council added 1,985 acres to the boundary to address the anticipated 20-year need for new housing and jobs. The four areas in Washington County that were added to the urban growth boundary in the Metro Council’s Oct. 2011 decision include:

- a 330-acre area north of Hillsboro, in the vicinity of Northwest Meek Road and south of U.S. Highway 26, for the purposes of attracting future large-site industrial employers;
- a 1,063-acre area south of Hillsboro, in the vicinity of Southwest 229th Avenue and Southeast Tualatin Valley Highway, to achieve a target of approximately 10,776 new housing units;
- a 543-acre area west of Beaverton, in the vicinity of Southwest 175th Avenue and Scholls Ferry Road, for a minimum of 4,651 new housing units; and
- a 49-acre area west of Tigard, east of Southwest Roy Rogers Road and south of Southwest Bull Mountain Road, for new residential development and to provide public structures in the West Bull Mountain area.

**Urban and Rural Reserves**

As mentioned in section 1.2, Clackamas, Multnomah and Washington counties and Metro collaborated on a regional effort to help determine the shape of the region over the next 40 to 50 years. Urban and rural reserves are intended to provide greater predictability for the region as to where future growth may take place both inside and outside the current urban growth boundary (UGB) over the next 40 to 50 years, while protecting important farmland and natural areas from urbanization for that same period of time. Urban and rural reserves are shown on the Metro 2040 Growth Concept map on the following page.