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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 address 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 plans 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, unless they are granted an extension by Metro’s Chief Operating Officer.

- The 2011 Amendments (660-012-0010) specify that local governments can designate “multi-modal mixed-use areas” (MMAs) and/or “industrial areas” where traffic congestion does not have to be considered for new developments or higher density zoning, provided that these areas meet certain guidelines and are located entirely within an urban growth boundary.

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.” 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:
  - Hwy. 8 from milepost 16.06-16.67 in Cornelius
  - Hwy. 47 from milepost 25.34-26.54 in Gaston
  - 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). These are described in chapter 2.

Oregon Bicycle and Pedestrian Plan
The Oregon Bicycle and Pedestrian 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. Washington County may choose to incorporate in the 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 guidelines.

Oregon Freight Plan
The Oregon Freight Plan (OFP) adopted in 2011, 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, Moving Ahead for Progress in the 21st Century (MAP-21); 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.  

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:
  
  - #2: Portland Central City to Tigard
  - #3: Tigard to Wilsonville
  - #7: Tualatin to Oregon City
  - #19: Beaverton to Tigard
  - #20: Tigard to Sherwood and Sherwood to Newberg
  - #21: Portland Central City to OR 217
  - #22: OR 217 to North Plains
  - #23: Forest Grove to U.S. 26
  - #24: Beaverton to Forest Grove

---

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
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 requirements for the design of 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**:
  
  o Documentation of regional and state transportation needs, as listed in the RTP and the OTP
  
  o Analysis of existing conditions, gaps, and deficiencies for streets, bicycle facilities, pedestrian facilities, transit, freight, and transportation system management and operations (TSMO).
  
  o Identification of facilities that exceed regional mobility targets or alternative targets
  
  o Consideration and documentation of the needs of youth, seniors, people with disabilities, and environmental justice populations
  
  o 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:
    
    ▪ Transportation System Management and Operation (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
  
  o Performance measures for safety, vehicle miles traveled per capita, freight reliability, congestion, bicycling, walking, and transit mode shares
  
  o 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 99W, 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. The HCT plan is described in greater detail in chapter 4.

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 best 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 August of 2012. 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 TSP 2035 update 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 Green House Gas (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 Plan (TVCP)

The City of Hillsboro and ODOT are leading this refinement plan for the Tualatin Valley Highway corridor between 10th Street in Hillsboro and Cedar Hills Boulevard in Beaverton. The effort began in March of 2011, concurrently with the Aloha-Reedville Study and Livable Community Plan. The two plans are being closely coordinated, with recommendations of the TVCP to be included in the Aloha-Reedville Plan, and with the Aloha-Reedville Plan serving as the platform for land use, economic development and housing recommendations in the corridor. As of January 2013, the TVCP is close to completion. Its most significant recommendation is to retain TV Highway’s current configuration as a five-lane urban arterial. Other recommendations include enhanced pedestrian crossings, completion of missing sidewalk and bike lane gaps, addition of street lighting, capacity improvements at intersections (such as new turn lanes and signal phase adjustments), and transit operational improvements. A second phase of the project, called the Focus Area Plan, will analyze transportation impacts associated with future development of South Hillsboro. Future high capacity transit planning along TV Highway will be further refined through a transit alternatives analysis that is not yet funded.

Basalt Creek Transportation Refinement Plan

Prior to identifying land uses and urban development 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. Draft recommendations include an east-west arterial that would connect the southern terminus of the proposed 124th Avenue extension with Boones Ferry Road and potentially Interstate 5. Once the major network has been adopted, the cities will address local street circulation and access during the concept planning process, which will begin in 2013.
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 and the Public Facility 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 last comprehensively updated in 2002 through A-Engrossed Ordinance 588 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.

This 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.

The 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.

The 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).

This plan has been modified through 20 separate ordinances since 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 twenty actions are described in table 1-1.
<table>
<thead>
<tr>
<th>Ordinance Number</th>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>601</td>
<td>2003</td>
<td>Incorporated the Jackson School Road Interchange Area Management Plan</td>
</tr>
<tr>
<td>609</td>
<td>2003</td>
<td>Adopted an Airport Planning Program for small airports</td>
</tr>
<tr>
<td>611</td>
<td>2003</td>
<td>Housekeeping and refinement changes to Ordinance 588: amended plan text, Functional Classification map, Lane Numbers map, Special Area Street Overlay map, and Countywide Road System map</td>
</tr>
<tr>
<td>626</td>
<td>2004</td>
<td>Added the Saltzman Road Extension Study Area</td>
</tr>
<tr>
<td>627</td>
<td>2004</td>
<td>Amended Functional Classification, Lane Numbers and Study Areas maps to define the location of the 170th / 173rd realignment</td>
</tr>
<tr>
<td>631</td>
<td>2004</td>
<td>General housekeeping update and amended Functional Classification map to correct a previously adopted road alignment</td>
</tr>
<tr>
<td>642</td>
<td>2005</td>
<td>Amended Pedestrian Element to provide consideration of enhanced pedestrian design guidelines; amended Bicycle Element to add a strategy calling for bicycle route signage</td>
</tr>
<tr>
<td>649</td>
<td>2005</td>
<td>Updated road Functional Classification names, reflected changes made to the transportation systems within city jurisdiction, updated Study Area designations, and added trail and pipeline alignments</td>
</tr>
<tr>
<td>663</td>
<td>2006</td>
<td>Amended a portion of Table 6, the Functional Classification Design Parameters</td>
</tr>
<tr>
<td>674</td>
<td>2007</td>
<td>Amended Road Jurisdiction Policy</td>
</tr>
<tr>
<td>683</td>
<td>2007</td>
<td>Clarified provisions and use of System Performance Standards, added illustration of preferred alternative for Beaverton-Hillsdale/Scholls Ferry/Oleson intersection design</td>
</tr>
<tr>
<td>712</td>
<td>2009</td>
<td>Added the North Bethany Subarea Plan, establishing a primary street network, a trails and accessway network, and conceptual design provisions for transportation facilities</td>
</tr>
<tr>
<td>713</td>
<td>2009</td>
<td>Added the 'B' Street Trail south of Forest Grove</td>
</tr>
<tr>
<td>717</td>
<td>2009</td>
<td>Modified the planned street network and functional classifications in the Elmonica Station Area</td>
</tr>
<tr>
<td>718</td>
<td>2009</td>
<td>Changed the functional classification of one roadway, and sections of four other roadways in the Cedar Mill/Cedar Hills area; clarified that removal of proposed roadways from the Plan must be done through a legislative action</td>
</tr>
<tr>
<td>730</td>
<td>2010</td>
<td>Further refinements for the North Bethany Subarea Plan</td>
</tr>
<tr>
<td>739</td>
<td>2011</td>
<td>Further refinements for the North Bethany Subarea Plan</td>
</tr>
<tr>
<td>744</td>
<td>2011</td>
<td>Further refinements for the North Bethany Subarea Plan</td>
</tr>
<tr>
<td>749</td>
<td>2012</td>
<td>Adopted ODOT’s Brookwood Interchange Area Management Plan and designated Cornelius Pass Road from HWY 26 to Cornell Road as 7-lanes</td>
</tr>
<tr>
<td>750</td>
<td>2012</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 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.

Based upon the 1988 Washington County Transportation Plan, the public facilities plan is outdated and of little value for transportation planning. 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 purpose of this Community Development Code (CDC) is to implement the Washington County Comprehensive Plan through the adoption and coordination of planning and development regulations which provide for the health, safety and general welfare of the citizens of Washington County. Standards and requirements of the Community Plans, the Rural/Natural Resource Plan, and the Transportation Plan that are applicable to development applications, including but not limited to urban land divisions, are specified in the CDC.

Land within the unincorporated portion of Washington County may be used, or developed by land division or otherwise, and a structure may be used or developed by construction, reconstruction, alteration, occupancy or otherwise only as the Comprehensive Plan and this Code permit. The provisions of the CDC, including standards and requirements of the Community Plans, the Rural/Natural Resource Plan, and the Transportation Plan that development applications are required to comply with, apply to any person developing or using land or a structure, and to the person’s successor(s) in interest.

In general, Article V of the CDC identify those public facilities and services that are necessary at a minimum level to accommodate development particularly transportation facilities. Land within incorporated areas of Washington County may also be subject to article V requirements, depending on location of the development, and if access to County roadways is contemplated. Article VII of the code identifies public transportation improvements authorized by the transportation plan that are subject to development review, and establishes the standards and procedures for such review.
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
- Sherwood Community Plan
- Sunset West Community Plan
- West Tigard Community Plan
- West Union 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. Public involvement thus far has revealed significant support for more sidewalks, crossing improvements and street lighting, among other improvements. The plan will also address other topics, including economic development, affordable housing and land use. The Aloha-Reedville effort is being closely coordinated with the TV Highway Corridor Plan and Focus Area Plan being conducted by the City of Hillsboro and ODOT. Outcomes of the TV Highway effort will significantly affect the Aloha-Reedville 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. Washington County staff and inter-jurisdictional coordination occurs frequently on an as needed basis. The formal coordination generally 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.

- 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).
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 and 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

As indicated in Figure 1-2 and Table 1-4 below, Washington County has grown considerably during the last 40 years. Since 1970 the population within Washington County 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 has increased from 180,302 to 232,019 an increase of 29 percent or 51,717 jobs.

Comparison to 2002 Plan

The 2002 Transportation Plan 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 40 years between 1970 and 2010. During that time frame, Washington County increased from 51,935 jobs to over 232,000 jobs – adding over 180,000 jobs in 40 years. From 2005 to 2010 Washington County employment decreased from over 284,000 jobs to 232,000 jobs, a decline of about 52,000 jobs or 22 percent in only five years.

Forecast

The forecast population and employment growth within Washington County is based upon historic trends and assumptions related to remaining growth capacity. Remaining growth capacity includes assumptions related to zoned capacity of lands within the existing Urban Growth Boundary as well as lands designated as Urban Reserves. The forecast has been reviewed by all jurisdictions in the region. Washington County’s dramatic growth rate over the past 40 years is expected to slow down in the future, but continue above the national average.

By the year 2035, the population of Washington County is expected to increase to 758,500, an increase of 42 percent from 2010. The forecasted average annual growth is approximately 1.42% per year for the 25 year period. This is down significantly from the 2.8% annual average growth rate of the preceding 25 years.

As the economy recovers from the current downturn, employment is expected to increase at a faster rate than population. 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. By 2035 the employment in Washington County is expected to increase to about 382,000 jobs. This would be an increase of about 150,000 jobs above the 2010 employment, or about 100,000 above 2005 employment. The forecasted average annual employment growth is

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2 Includes growth within cities in Washington County.
approximately 2.02% per year for the 25 year period 2010-2035. This is down slightly from the 2.11% annual average employment growth rate of the preceding 25 years (1985-2010), and down yet further, from the 3.69% annual average employment growth rate of the pre-recession 20 year period from 1985 to 2005.

Figure 1-2: Washington County Population and Employment Trends

Table 1-2: Washington County Population and Employment Historic and Projected

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>157,920</td>
<td>51,935</td>
</tr>
<tr>
<td>1975</td>
<td>192,900</td>
<td>78,639</td>
</tr>
<tr>
<td>1980</td>
<td>245,808</td>
<td>122,558</td>
</tr>
<tr>
<td>1985</td>
<td>268,000</td>
<td>137,741</td>
</tr>
<tr>
<td>1990</td>
<td>311,554</td>
<td>180,302</td>
</tr>
<tr>
<td>1995</td>
<td>384,335</td>
<td>222,002</td>
</tr>
<tr>
<td>2000</td>
<td>445,342</td>
<td>265,353</td>
</tr>
<tr>
<td>2005</td>
<td>489,785</td>
<td>284,422</td>
</tr>
<tr>
<td>2010</td>
<td>532,620</td>
<td>232,019</td>
</tr>
<tr>
<td>2015</td>
<td>561,056</td>
<td>263,127</td>
</tr>
<tr>
<td>2020</td>
<td>589,491</td>
<td>294,234</td>
</tr>
<tr>
<td>2025</td>
<td>617,927</td>
<td>325,342</td>
</tr>
<tr>
<td>2030</td>
<td>688,329</td>
<td>354,077</td>
</tr>
<tr>
<td>2035</td>
<td>758,500</td>
<td>382,812</td>
</tr>
<tr>
<td>2040</td>
<td>799,000</td>
<td>416,836</td>
</tr>
</tbody>
</table>

The growth envisioned in the 2035 population and employment forecast translates directly into transportation system needs within Washington County. Of particular significance for the transportation system is the jobs growth and peak-hour travel demand. 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 perhaps has a greater impact on traffic volumes. 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, which roughly corresponds to the economic downturn that produced the loss of more than 50,000 jobs in Washington County between 2005 and 2010. Meanwhile population increased by almost 43,000 people 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. Figure 1-3 shows household types, indicating that more than 50 percent of the households were married couple families. The average household size was 2.6 people.

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

Figure 1-4 shows the age breakdown of residents of Washington County. 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 age 65 years or older.

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

Figure 1-5 shows educational attainment of Washington County residents. In 2010, nearly 40% of the residents of Washington County had a bachelor’s degree or higher, whereas only 9% had less than a high school diploma.

Table 1-5 below shows the occupation of employed Washington County residents, 16 years and over, in 2010. Note that almost 43 percent of Washington County residents were employed in the predominantly white-collar management, business, science and arts occupations.

Table 1-3: Occupation of Washington County Residents – 2010

<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>18,236</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.
Figure 1-6 shows the percentages of Washington County workers, 16 years or older, working in various industrial sectors.

![Figure 1-6: Industry of Washington County workers – 2010](image)

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 downturn in 2010.
1.3.2 Travel Demand

The 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. Table 1-4 below describes the forecasted model outcome based upon the implementation of the State RTP list of projects.3

<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. All modes include 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.

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3 The State RTP network for modeling assumes $3.9 billion in revenues will be available through 2035 for transportation improvements in Washington County, however, only about 60 percent of that revenue is assumed to be available under the more realistic Financially Constrained funding scenario (source: Metro 2035 Regional Transportation Plan tables 3.2 and 3.4)
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 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 below.

**Figure 1-7: Metro 2040 Growth Concept and Urban and Rural Reserves in Washington County**