


PALOUSE 2040

Regional Transportation Plan

(Covering Asotin, Columbia, Garfield and Whitman County)

Prepared by-

Palouse Regional Transportation Planning Organization (PRTPO)

Serving Government Agencies Within Asotin, Columbia, Garfield And Whitman County

March 2018

www.palousertpo.org

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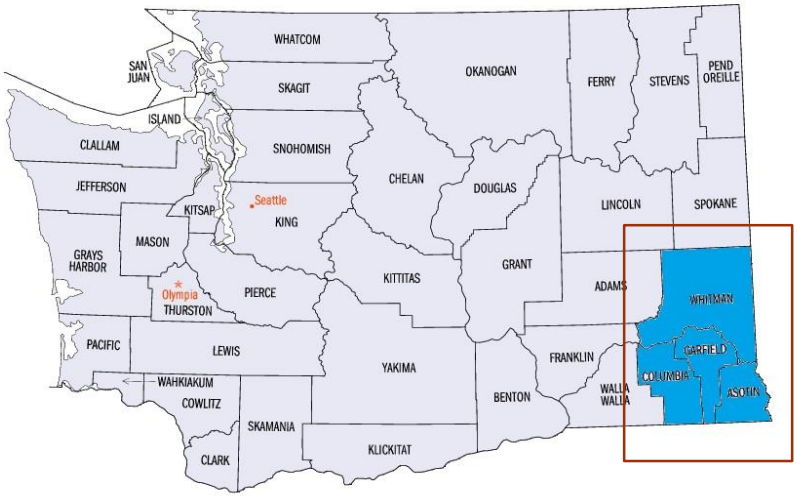
Palouse RTPO Region And Member Agencies

Washington County Selection Map



(Asotin, Columbia, Garfield and Whitman County)

Palouse RTPO Region

Member Counties:
Asotin
Columbia
Garfield
Whitman

Transit Members:
PTBA- Asotin
Garfield -Pomeroy
COAST Transit-Colfax
Pullman Transit
Columbia Transit

Member Cities:
City of Asotin
City of Clarkston
City of Colfax
City of Dayton
City of Palouse
City of Pomeroy
City of Pullman
City of Rosalia

Member Ports:
Port of Columbia
Port of Clarkston
Port of Garfield
Port of Whitman

WSDOT Regions
WSDOT ER Region
WSDOT SC Region

Member Towns:
Town of Albion
Town of Colton
Town of Endicott
Town of Farmington
Town of Garfield
Town of Lacrosse
Town of Lamont
Town of Malden
Town of Oakesdale
Town of St. John
Town of Tekoa
Town of Uniontown

Palouse 2040 Committee Members

The Palouse RTPO developed this plan in coordination with various members of the local government representatives, and a citizen advisory committee representing residents of the region. Their contributions are deeply appreciated throughout the process of the Plan development. Below is the list of Steering Committee and Citizen Advisory Committee members who helped guide this plan:

PLAN STEERING COMMITTEE MEMBERS:

Members	Title	Representing
Andrew Woods	Public Works Director	Columbia County
Char Kay	Regional Planning Manager	WSDOT, Eastern Region
Craig George	Mayor	City of Dayton
Craig VanTine	Transit Director	COAST Transportation
Dean Kinzer	Commissioner	Whitman County
Dustin Johnson	Public Works Director	Asotin County
Grant Morgan	Public Works Director	Garfield County
Jennie Dickinson	Manager	Port of Columbia
Jenny George	General Manager	Asotin County PTBA
John A Shaheen	Director	WSU Transportation
Kevin Gardes	Public Works Director	City of Pullman
Mark Storey	Public Works Director	Whitman County
Matt Hammer	Public Works Director	City of Colfax
Mike Rizzitiello	City Administrator	City of Colfax
Paul Gonseth	Regional Planning Manager	WSDOT, South Central Region
Robert Ward	Councilman	Town of Rosalia
Shaun Darveshi	Director	Palouse RTPO
Wanda Keefer	Manager	Port of Clarkston

CITIZEN ADVISORY COMMITTEE MEMBERS:

Members	Title	Representing
Karl Boehmke	Resident	Pullman
Karen Kiessling	League of Women Voters Pullman	Pullman
Mary Collins	League of Women Voters Pullman	Pullman
Richard Wesson	Business owner	Pullman
David Tysz	Councilman	Town of Tekoa
Helen Burke	Resident	Garfield County

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Adoption Page

Palouse RTPO is the state-authorized Regional Transportation Planning Organization (RTPO) in the Southeast corner of Washington State, consisting of 35 member jurisdictions within the Palouse RTPO boundaries of Asotin, Columbia, Garfield and Whitman Counties. The member jurisdiction includes all incorporated cities and towns, port districts, and transit agencies. Washington State University became a part of the PRTPO Policy Board in 2015 as a major employer.

RTPOs carry out the continuous, cooperative, comprehensive regional transportation planning process. All RTPOs must develop and update a Regional Transportation Plan addressing a planning horizon of no less than 20 years. The authority for RTPOs was included in Washington State's Growth Management Act of 1990. RTPOs coordinate transportation planning at all jurisdiction levels, including the state, to ensure an interconnected regional transportation system. The RTPO statute indicates that in urbanized areas, the RTPO is to be the same as the MPO. All RTPOs must develop and update a Regional Transportation Plan.

Palouse RTPO is directed by a Transportation Policy Board (TPB) comprised of elected officials and other designated members representing businesses and transportation interests. State legislators from the 9th and 16th legislative districts are ex-officio members of the TPB.

Beginning in March 2016, a series of seven public meetings were held to kick off the revamp of previously adopted Regional Transportation Plan 2010, and to inform the public about the ongoing process. In addition, an online survey was open for six months, and various public and steering committee meetings were held to gather input. Palouse RTPO's Technical Advisory Committee (TAC) participated in the development of a draft plan that was released to the public for further comment during a 30-day review period from Jan 22, 2018- Feb 22, 2018. The final Palouse 2040 Plan was formally adopted by the TPB on March 13, 2018. This plan is reviewed every two years and updated as needed to remain in state compliance and to maintain the region's eligibility to receive federal and state funding for transportation improvement projects. This plan includes a list of regionally significant transportation projects summary, list of previously awarded fiscally constrained Transportation Alternative Projects (TAP) funded by the Palouse RTPO, and Regional Transportation Improvement Program (RTIP) 2018-2023. These transportation improvements are planned by various local jurisdictions within the Palouse region phasing 2016 to 2040. An additional illustrative list of fiscally unconstrained conceptual projects is included in the plan as well, which at this time are outside of the anticipated revenues for the region.

Included on the following page is a copy of the signed resolution acknowledging the Palouse Regional Transportation Planning Organization's' adoption of the Palouse 2040 Plan.

Resolution 2018-02

A Resolution Approving the Palouse 2040 Regional Transportation Plan for the Palouse Region Covering Asotin, Columbia, Garfield and Whitman County

WHEREAS, the Palouse RTPO is the State designated Regional Transportation Planning Organization (RTPO) for the Palouse region and is required to prepare a regional transportation plan under Washington State law (RCW 47.80);

WHEREAS, the planning boundaries for the RTPO, referred to as the "regional planning area" and the "region" under state law, are the boundaries of Asotin, Columbia, Garfield and Whitman Counties in Washington State.

WHEREAS, the last update to the integrated regional transportation plan occurred in November 2010 with the adoption of the Palouse Regional Transportation Plan;

WHEREAS, the Palouse 2040 Regional Transportation Plan (Palouse 2040) updates the November 2010 plan as an integrated regional transportation plan, meeting the state requirement for the Palouse region;

WHEREAS, a 30-day public comment period was held Jan 22, 2018- Feb 22, 2018, and all comments received were considered before final action on the Palouse 2040 Plan.

NOW THEREFORE BE IT RESOLVED BY THE PALOUSE RTPO:

The Palouse 2040 Regional Transportation Plan, as attached herein, is hereby approved.

Adopted March 13, 2018

Palouse RTPO Policy Board Chair

Shaun Darnell

Palouse RTPO Director

Table of Contents

List of Figures

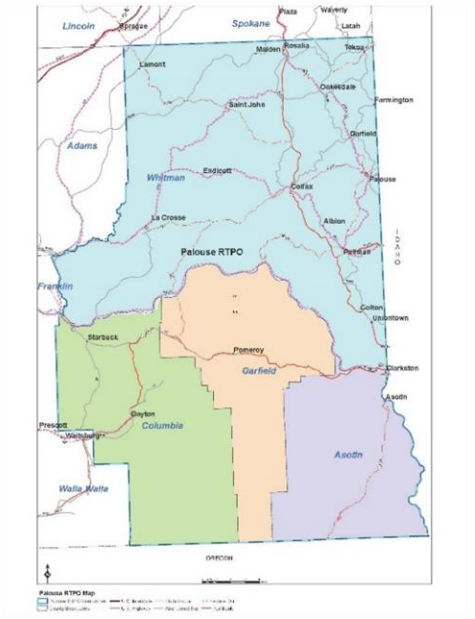
List of Tables

List of Appendixes

Section I: Executive Summary

The Palouse Regional Transportation Plan 2016-2040 (Palouse 2040) is a multimodal long-range plan that establishes the strategic framework for meeting the Palouse region's existing and future transportation needs. Developed through extensive coordination with member agencies and public input, Palouse 2040 provides a "toolbox" to facilitate cooperation and maximize resources to jointly select transportation projects and programs for regional funding and its implementation through 2040. Serving as the link between local agency transportation plans and the Washington State Transportation Plan (WTP), Palouse 2040 was developed to be consistent with state requirements. This will ensure projects will be eligible for funding through the widest range of programs.

Scope of the Palouse 2040 Plan Update



Palouse 2040 is an update to the previous plan it replaces, the Palouse Regional Transportation Plan 2010, which was adopted in April 2011. The new Plan is narrow in scope, representing a decision early in the planning process to ensure that the plan maintains its state compliance in light of sweeping changes to the state and federal transportation planning process that may affect the state transportation policies introduced by the Fixing America's Surface Transportation Act (FAST Act), which was approved by the U.S. Congress and signed into law by the president in 2015.

Agency Collaboration and Regional Priorities

Palouse 2040 was developed through a cooperative process that involved the Palouse region agencies, the Washington State Department of Transportation (WSDOT), the Steering Committee, the public, the Technical Advisory Committee and ongoing transportation planning efforts of the Palouse region's 20 cities and towns, 4 ports, and five transit agencies that constitute the PRTPO

planning area. The priorities set for the regional transportation system are consistent with the policy goals established in the Washington Transportation Plan (WTP) 2040 (See Section 4 for policy goal definitions). These policy goals are as follows, in no particular order:

- Economic Vitality;
- Preservation;
- Safety;
- Mobility;
- Environment; and
- Stewardship.

Palouse 2040 builds from and supports the WTP 2040, Phase 2, local agency transportation plans and prioritization efforts. The Palouse region has embraced working collaboratively and cooperatively to identify and address the highest priority regional transportation needs. The plan is organized to assist member agencies, WSDOT, the public, and others with:

- Understanding how the Palouse 2040 plan was developed;
- Defining the region's transportation priorities;
- Identifying and prioritizing transportation strategies and improvements for the region;
- Noting potential environmental constraints of the projects; and
- Identifying funding constraints and strategies.

By the year 2040, Whitman County alone is expected to grow by more than 8000 people with expected jobs to grow to more than 4300 employees. Asotin County is expected to grow by more than 700 people with 375 new jobs. The other two counties in the region, Columbia, and Garfield,

are expected to lose population by 400 people, however, these predictions by the Office of Finance Management (OFM) do not take into account the new manufacturing plant expected to add more than 80 new jobs in these two counties. Combining all the counties, this growth will present new challenges to the region's transportation system, notably an increase in traffic congestion is forecast to occur on US 195, SR 26 and many other arterials within the region. Palouse 2040 highlights the intricate relationship between land use activities and transportation, as well as the importance of

coordinating planning efforts on all levels. It also presents land use issues at a local level, recognizing the unique differences and challenges between the region's jurisdictions.

Estimates of future transportation revenues are projected to be short of funding needs for agency improvement projects and programs identified in the state, county, and local agency transportation plans for the regional transportation system. Spending on maintenance of the current transportation system in the Palouse region is expected to require 80% to 90% of forecasted revenues from 2016-2040. Transit revenues and expenditures during the plan's time frame are roughly equal, indicating that current services should be maintained and planned service expansions should occur within the forecasted funding constraints. The difference between the available funding and costs of identified improvement projects and programs requires a regional approach to setting priorities and strategies for addressing transportation needs. To guide the development and funding of the regional transportation system, Palouse 2040 establishes priorities, policies, goals, and strategies.

Transportation Improvements and Programs

Palouse 2040 includes a listing of state highway projects and local agency regional transportation improvement projects. The lists were generated with input from local agencies and the Technical Advisory Committee and include a wide range of small to large-scale projects. Types of programs and projects include intersection improvements, new road segments and road widening, transit/multimodal facilities, and non-motorized trails. It includes a listing of each project, planning-level cost estimates, project time frames, and relative priority. All projects were proposed for inclusion in the Palouse 2040 by owners of transportation facilities and/or member jurisdictions of Palouse RTPO. Additional project information is included in Appendix L (latest adopted version). The state highways serve as the backbone of the regional system and as a result, many of the priority projects serve to strengthen and support the state transportation system. Moving forward, there will be increased emphasis

on maintaining and improving the efficiency of existing systems with fewer new projects and roads. Palouse 2040 summarizes many regionally significant projects across the Palouse region that need additional funding.

Financial Constraints

State regulations for Regional Transportation Plans require a financial analysis to show how the transportation improvements and programs can be implemented with reasonably expected funds. In addition, the regulations provide for the identification of additional potential revenue that could be generated to fund more projects. The financial analysis for Palouse 2040 is based on historical trends for revenue and expenditures, and current rules and regulations controlling transportation funding programs. Palouse RTPO offers various avenues to the local agencies to have a well-constrained funding list but does not advise any agency on funding investments. The estimates are used to establish a likely range of revenue for regional transportation projects. All revenue and costs are evaluated in terms of their "year of expenditure" using inflation rates and past history. This accounts for the differences in the growth of project costs versus revenue over the 24-year time frame of the plan.

Highway Funding

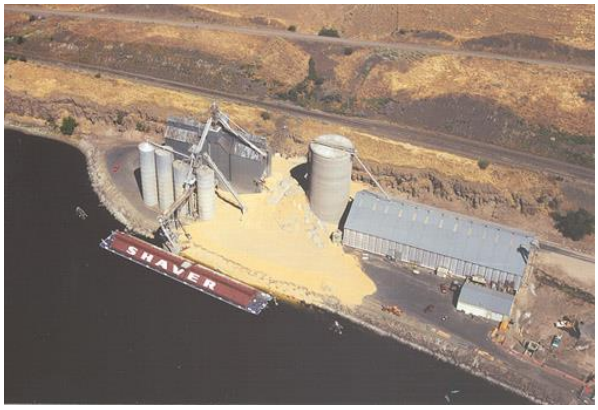
Almost $69 million in desired state highway capacity improvement projects have been identified in the Palouse region through 2040, using 2017 constant dollars. These are the high priority projects identified for the region. All of the WSDOT projects identified in the Plan are either medium or high priority projects. State highway funding is appropriated by the state legislature and approved by the governor. Historical state spending may not be correlated to future spending. The Connecting Washington Act, which was signed into law in 2015, provided funds for the 10 passing lanes on US 195 and SR 26 projects in Whitman County.

Additionally, the following needs have been identified to maintain and preserve the current transportation system:

- **1.7 million funding increase for pavement preservation and maintenance as total of $282.6 million is needed to maintain and preserve the current roadways till 2040.**
- **$43 million to pave existing gravel arterials.**
- **$35 million to preserve rail lines.**
- **$194.6 million to widen narrow roadways, and improve shoulder width.**
- **Major Regional Projects:**
  - **Pullman Airport Road Widening**
  - **Pullman by-pass Construction and Development**
  - **Colfax US 195 and SR 26 Intersection and Bridge Upgrade**
  - **U.S. 12 Widening in Clarkston**
- **Reconsideration of local taxation and funding tools.**
- **The dedicated funding source for small structures.**

Maintenance for Multimodal Transportation System for Regional Economic Development:

A significant proportion of rail lines have fallen into disrepair or have been abandoned, severely limiting service options. Almost 70% of regional roadways are considered inadequate and 26% of the state's unpaved arterial roadways are located within the Palouse region. In addition, some roadways are closed to freight transport from January to April due to freezing temperatures. The lines need to be well maintained and updated to improve multimodal freight movement as well as Freights and Goods Transportation System (FGTS) improvements for all weather standards.



Section II: Introduction of the Palouse RTPO

The Palouse Regional Transportation Planning Organization, Long Range Transportation Plan 2016-2040 guides regional goals, policies and transportation projects and possible investments over the next 20 years. It represents the efforts of government agencies serving in the Palouse RTPO region to coordinate the planning of diverse transportation systems to make it more efficient and valuable. It supports the region's anticipated growth and meets its priorities and goals. The plan was developed through a cooperative process that involved the Palouse RTPO, the Washington State Department of Transportation, the public, the RTP Steering Committee, and ongoing transportation planning efforts of Palouse RTPO counties of Asotin, Columbia, Garfield and Whitman, including cities, ports, transit agencies and other service providers in the region.

A wide range of regional transportation projects and strategies are identified in the Palouse RTPO Regional Transportation Plan 2040. These projects and strategies create a comprehensive, integrated, multimodal transportation system to serve the region for the next 24 years. The total costs of these projects and strategies will exceed the likely available future funding that would be required to implement them. Because not all projects and strategies will be funded over the next 24 years, the region established priorities for its transportation improvements. These priorities were used in the technical evaluation to establish a framework for the plan. This framework essentially identifies the core transportation needs, which other regional improvements will tie into. The framework was defined to help guide the development of a fiscally unconstrained Palouse Regional Transportation Plan 2040 project list.

Palouse RTPO Formation and History

On January 16, 1991, the Board of Commissioners of Asotin, Columbia, and Garfield Counties, by resolution, formed the Palouse Regional Transportation Planning Organization (PRTPO) under the provisions of the 1990 Growth Management Act (SHB 2929). The commissioners designated the Palouse Economic Development Council, now SEWEDA (Southeast Washington Economic

Development Association), to provide its lead planning agency services. Whitman County joined in 2003 as the fourth county of the Palouse RTPO. Asotin, Columbia and Garfield's counties are included in the South Central Region of the Washington State Department of Transportation (WSDOT), and Whitman County is included in the eastern region of WSDOT.

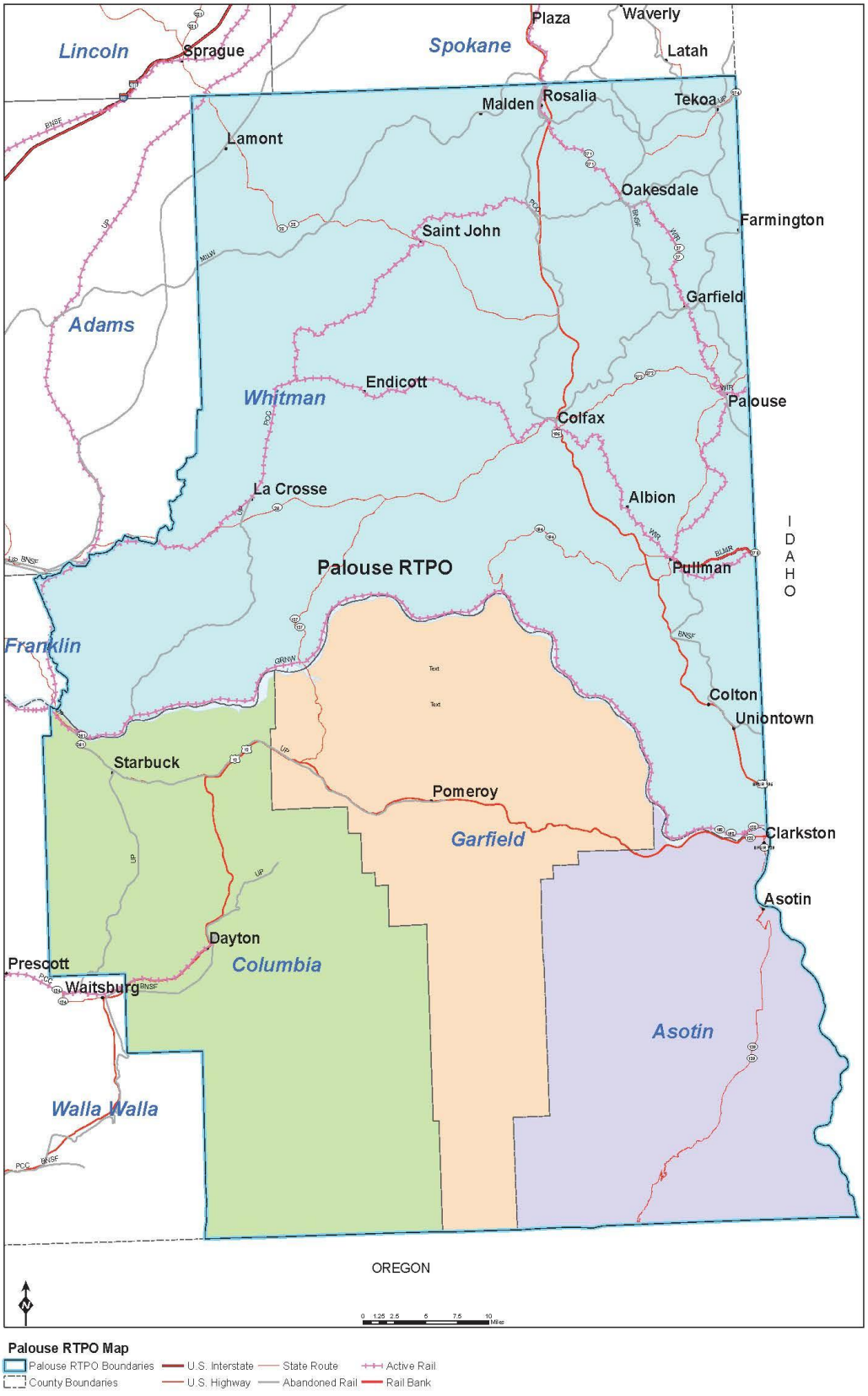
In 2017, the Palouse RTPO Policy Board accepted the Town of Rosalia's interest to provide lead agency services.

The PRTPO was created so that the region could use its resources more efficiently to meet growing transportation needs. This Regional Transportation Plan is a result of the organization evaluating these needs. In the summer of 2003, boundaries of planning regions in eastern Washington were adjusted, with the Spokane Regional Transportation Planning Council taking on additional responsibilities with Kootenai County, Idaho to house and perform Kootenai County Metropolitan Planning Organization (KMPO) as the metropolitan area continue to grow. As a result, Whitman County joined the Palouse RTPO as a voting member and contributor to the regional transportation planning process. The eastern and southcentral region of WSDOT, counties, ports of all four counties, and cities in the region, also participate in the regional process.

Also of note is the fact that the Lewiston-Clarkston area of Nez Perce County, Idaho; and Asotin County, Washington; including the City of Asotin, surpassed 50,000 in population after the 2000 decennial census. When the population reaches this level, there is the added opportunity and responsibility to provide a Metropolitan Planning Organization to ensure that transportation plans are coordinated, and to approve all expenditures of federal funds for transportation improvements. Lewis-Clark valley MPO (LCVMPO) was formally established in 2005.

The PRTPO is governed by a Transportation Policy Board (TPB) and a Technical Advisory Committee (TAC). The PRTPO is a combination of duly elected officials that represent each member jurisdiction within the four-county region. They represent regional jurisdictions, ports districts, the U.S. Forest Service, private business, cities, towns, transit agencies and the Department of Transportation. The Technical Advisory Committee is comprised of staff that are technically proficient in planning or engineering that represent each jurisdiction. Current membership of the RTPO Policy Board and Transportation Advisory Committee is included in Appendix A. Figure 1 represents the Palouse RTPO county boundaries, its local jurisdictions and various transportation networks within the region.

Figure 1 Palouse RTPO Regional Boundary Map



Transportation Goals and Policies

The priorities framework for Palouse 2040 provides the general guidance to help direct available funding for regional transportation improvements. Policies were defined to help guide the region in implementing the plan and focus on the regional goals and policies, statewide goals, as well as coordination and implementation of projects and programs. The goals and policies lead to overall improvement strategies, are summarized in this section.

Regional Goals

1. Identify, encourage, and implement strategies and projects that will maximize the efficiency and effectiveness of the regional transportation system through a cooperative effort within PRTPO member agencies, the public and private sectors, and state and federal agencies.

2. Provide a plan that identifies significant transportation facilities and services that support local comprehensive plans and ensures ongoing evaluation necessary to keep current with local, regional, inter-regional, state, federal, and public needs and requirements while recognizing the inter-relationships within the contiguous urban area and areas immediately adjacent to it.

3. Protect the integrity of the investment in the existing regional transportation system by encouraging and prioritizing timely maintenance of the system. Identify the need for improvements to existing corridors to address future transportation demands of the region.

4. Promote clean energy vehicles, electric cars, alternative fuels and regional public transit agencies.

5. Promote regional and local trails, bike paths and other non-motorized and recreational transportation modes.

6. Facilitate cooperation, coordination and information exchange among PRTPO's member agencies.

7. Maintain and implement a public participation plan to ensure the early, meaningful, and continuous participation of the region's interested parties in the planning process.

8. Be consistent with State, Palouse RTPO and countywide planning policies, encourage efficient multimodal transportation systems that are based on regional priorities and coordinated with county, city, and port comprehensive plans.

Regional Policies

Goals and policies were originally approved and adopted in 2010 during the last update of the Palouse Regional Transportation Plan. In conjunction with this update, in 2016, goals and policies were revisited and discussed by the PRTPO Board, local agencies, the public, and residents, as well as an online survey conducted during a six-month period. Detailed information on survey results can be found in Appendix D and D1.

Policies to be pursued in the region were reordered and expanded upon as follows:

Policy # 1:

Provide multimodal transportation systems that are based on regional priorities and are coordinated with county and city comprehensive plans while optimizing the use of resources devoted to transportation improvements to provide a safe and efficient multimodal transportation system for the movement of people and goods.

1.1: While developing the Regional Transportation Plan, the PRTPO shall ensure that the plan will reflect the link between transportation facilities (roads, buses, trains, aviation, paths, waterways, and trails) and land use.

1.2: The PRTPO shall pursue improvements to mitigate geometric and other deficiencies in order to provide the best roadway system possible.

1.3: As practical, the PRTPO shall maintain Level of Service “C” on all rural regional roadway facilities and Level of Service “D” on all urban facilities of regional significance.

1.4: As possible, the PRTPO shall preserve the ability to move freight by rail, barge, and air in order to encourage multiple opportunities for the movement of freight in and through the region to minimize expenditures to maintain the roadway system.

1.5: The PRTPO shall provide, where practical and meaningful, comfortable places for bicycle and pedestrian travel in order to encourage opportunities for non-motorized travel.

1.6: The PRTPO shall maintain and improve, where possible, access to recreational opportunities and other events in order to enhance the quality of life for residents of the region as well as to promote tourism opportunities for visitors to the region.

1.7: The PRTPO shall place a high priority towards safety projects.

1.8: The PRTPO shall generally place priority on maintenance and preservation first and new construction second.

1.9: The PRTPO shall identify and encourage preservation of transportation corridors for future right-of-ways, in alignment with WSDOT's initiatives such as Corridor Sketch and Practical Solutions.

1.10: The PRTPO shall support planning analysis and opportunities for the advancement of other types of new and emerging technology for transportation systems.

Policy # 2:

Encourage development in areas where adequate public facilities and services exist or can be provided in an efficient manner.

2.1: The PRTPO shall plan and make provisions for public facilities and services, such as transportation, so that they will be available at the same time as new people and jobs arrive within the region.

2.2: Implement transportation improvements which enhance the likelihood that improvement of inadequate regional infrastructure, in particular, water, sewer, and other utility systems will occur.

Policy # 3:

Encourage economic development throughout the region that is consistent with adopted comprehensive plans, promote economic opportunity for all citizens of the region, especially unemployed and disadvantaged persons, and encourage growth in areas experiencing insufficient

economic growth, all within the capability of natural resources, public services, and public facilities.

3.1: The Regional Transportation network shall help promote economic development and manage growth to serve the needs and vision of the region.

Policy # 4:

Protect the environment and enhance the planning area's high quality of life, including air and water quality and the availability of water.

4.1: The Regional Transportation Plan shall protect the environment, as best as possible, as follows:

a) Provide for protection of critical areas such as wetlands and natural resource land which have long- term commercial significance,

b) Reduce air pollution when feasible,

c) Reduce transportation-related sources of water contaminants,

d) Provide for context sensitive design and practices, and

e) Support growth within areas that can adequately absorb the growth.

Policy # 5:

Encourage the involvement of citizens in the transportation planning process and ensure coordination between communities and jurisdictions to reconcile conflicts.

5.1: The PRTPO shall provide for meaningful citizen involvement opportunities in the regional transportation planning process.

Profile of the Palouse Region

Topography

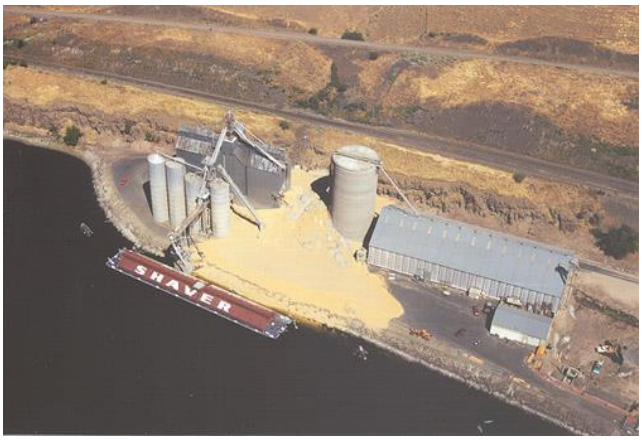
The Palouse RTPO is located in southeastern Washington. It is comprised of the four counties of Asotin, Columbia, Garfield, and Whitman. This is an area of over 4,320 square miles with a variety of topography and geological features. The region is bisected by the Snake River that consists of rugged bluffs and deep valleys. The northern portion of the region contains rich agricultural land that is well suited for the production of dryland wheat, peas, lentils, and barley. The southern section of the region consists of mountainous, forested terrain and is home to the Umatilla National Forest.

Snake River

The Snake River is the primary surface water in the region. Most of the creeks, streams, and rivers within the region flow into the Snake River, which in turn connects with the Columbia River and eventually to the Pacific Ocean. A series of Snake River dams supply the most prevalent source of energy through hydroelectric power. The reservoirs created by the dams enable recreational, scenic, and transportation features. The recreational and scenic features are a primary draw upriver from the Lewiston-Clarkston area on the Snake and Clearwater River systems, which provide boating, rafting, fishing, and other water-related sports opportunities. In addition to recreation, the reservoirs also provide an economical barge transportation system to serve as a low-cost alternative for shipping the region's agricultural commodities, lumber, and manufactured products to the West Coast and beyond.

The Snake River is an important component of the transportation system serving the region. River navigation handles a significant amount of grain and other goods produced in the region. The construction of four major dams on the Snake River in the 1950s to 1970s, complete with lock facilities, enables ocean-going cargo to travel inland as far as Lewiston, Idaho. Both the Little Goose Dam and Lower Granite Dam are located within the RTPO region. There are four port districts serving the region that have waterside facilities: The Ports of Clarkston, Columbia, Garfield, and Whitman. The Port of Whitman operates three industrial sites along the river: Ports

of Wilma, Central Ferry, and Almota. Outbound shipments consist primarily of agricultural commodities and lumber. The Ports of Clarkston, Columbia, and Whitman also have contracted marinas at some of their locations. A fifth port, the Port of Lewiston located in Idaho, is an important factor to our regional economy with its waterside facility for grain and containerized shipments. Port facilities located along the Snake River are operated by port districts and grain grower cooperatives.



National Forest

The southern portion of the region is forest and timberland, which includes the Umatilla National Forest, the Wenaha-Tucannon Wilderness, and the Blue Mountains. Asotin, Columbia, and Garfield counties all contain portions of the Umatilla National Forest. This area contains Camp William T. Wooten State Park, the Bluewood ski area, and two peaks over 6,300 feet- Oregon Butte and Diamond Peak.

The Umatilla National Forest covers 1.4 million acres of diverse landscapes and plant communities within the Blue Mountains of southeast Washington and northeast Oregon. The forest has some mountainous terrain, but most of the forest consists of V-shaped valleys separated by narrow ridges or plateaus. The landscape also includes heavily timbered slopes, grassland ridges and benches, and bold basalt outcroppings. Elevation ranges from 1,600 to 8,000 feet above sea level.

Recreation

A wide array of recreation and tourism opportunities are available throughout the entire region to keep visitors and residents entertained through every season of the year. Activities include hunting, fishing, skiing, hiking, snowmobiling, biking, golf, and other outdoor endeavors. The area is home to the Umatilla National Forest and the Wenaha-Tucannon Wilderness area, as well as numerous sandy beaches and boat launches on the Snake River.

The Snake River offers water-based recreation and fishing on miles of calm, uncrowded water. The Clearwater & Snake River National Recreation Trail offers ten miles of paved continuous trails, boat launches, marinas, and swimming beaches. Several parks and marinas throughout the region

offer services and amenities such as swimming, picnic areas, overnight lodging, RV sites, and many have utility hook-ups.

The region is also known as the gateway to Hells Canyon, North America's deepest gorge, and attracts more than 30,000 visitors each year to enjoy world-class whitewater adventures. The Port of Clarkston is the docking point for several cruise boat companies that originate in Portland, Oregon, and travel the Columbia-Snake River system following the Lewis & Clark water route. The Touchet and Tucannon Rivers are found in the western part of the region and provide additional recreational opportunities. In the northern end of Whitman County, a series of lakes entice anglers. Whitman County is home to Steptoe Butte State Park, Palouse Falls State Park, and Kamiak Butte County Park. The county also operates several other smaller day use parks. Asotin County is home to Fields Spring State Park, Chief Timothy Park, and several other park areas along the Snake River in Clarkston and Asotin. Garfield County is home to Central Ferry Park and is considered a gateway to the Blue Mountains. Columbia County is home to Camp Wooten State Park, as well as Lyons Ferry Park.

In addition to physical recreational opportunities: region is also home to many local and nationally recognized events. These include rodeos; fairs and festivals highlighting the agricultural roots of the region; car shows and road races; and major college sports. Washington State University (WSU) also offers residents access to PAC 12 sporting events. The National Lentil Festival held each August in Pullman celebrates the regional title as the Pea and Lentil Capitol of the World. Garfield County is the site of the developing Eastern Washington Agricultural Museum and the Wild West Road Rally. Columbia County has many activities such as the All-Wheels Weekend and fine arts events, and Asotin County now boasts an Aquatic Center.

Cultural opportunities flourish in the region as well. The largest art museum in the Inland Northwest is located on the WSU campus in Pullman, offering changing exhibits ranging from fine arts and fine crafts to architecture and design. In addition, several towns boast art galleries representing a wide variety of local, regional, and national talent. Theatre, dance, and music performances occur regularly at facilities across the area, including the 12,000 seat Beasley Coliseum facility on the WSU campus. Top-name comedians, rock, country, and jazz stars, and touring ballet, symphony, and theater acts are performing at the coliseum throughout the year. The area is in close proximity to the rich culture of the Nez Perce Nation. In Uniontown, a 1934 Dairy Barn turned artisan workshop offers interactive opportunities to visit with artists while they create their work. The Tekoa Empire Theatre, a 1940, 280 seat, Art deco theatre has been renovated and re-opened as a performing arts center. Regular performances throughout the year include local and regional talent.

Land Use

Existing and proposed land uses are an integral component of transportation planning. The Growth Management Act requires that the transportation element is consistent with the land use element of the local comprehensive plan. It can be shown that land use and transportation are inter-related and that land use activity largely determines the travel demand and desire. When different land uses are segmented or separated, the length of trips tends to increase. These longer trips are usually served more conveniently by automobile thus reducing the use of transportation alternatives, such as walking or transit to meet mobility needs.

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

The need to maintain economic viability and, at the same time, quality of life is a challenge. Some components which contribute to a desirable quality of life include job employment opportunities, a healthy environment with clean air, and recreation opportunities. An efficient, safe transportation system also contributes to the quality of life for residents of a region and can act as an attraction for economic development.

The Palouse region is heavily dependent on agricultural activity throughout. Many grains and vegetables are produced and shipped throughout the world. Lumber is also harvested and transported from the region.

Very few population centers exist for a region of its size, and only the City of Clarkston in Asotin County and the City of Pullman in Whitman County have populations that exceed 5,000 and are considered urbanized. In fact, Pullman, home of Washington State University, with a population of approximately 25,000 makes up over one-third of the population of the region.

Population Trends

From the 1950's to the 1990's, Columbia and Garfield Counties have lost population. The population has declined because of the lack of job opportunities. As farms became more mechanized, less labor was needed and there were no alternative jobs available in the area. Therefore, people moved from the area in order to find work. During the 1990's however, although meager, these two counties showed some population growth.

Asotin and Whitman Counties have gained population consistently over the last several decades. Asotin County has gained population because of job availability in the Lewiston-Clarkston Valley. The Ports of Clarkston, Lewiston, and Wilma have created many job opportunities over the past 40 years. Large firms, such as Clearwater paper company, Potlatch Corporation, Schweitzer Engineering Laboratory, Vista Outdoor (was Blount, Inc.), among other employers, have consistently provided jobs for the area. Although the importance and contribution of agriculture is evident throughout the region, Whitman County population and economic diversity are influenced by Washington State University in Pullman.

Asotin County deals with the challenges of urban development in unincorporated areas of the county surrounding the City of Clarkston.

Tables 1 and 2 show population census data as well as future forecast projections. Forecast populations for counties are projected by the Office of Financial Management, however, for cities, the forecasts assume a constant percentage of county population for comparison only. Experience over the past several years has been that rural towns have not increased in population to a large extent. Please see the table 1, to find % change from past census and current estimates.

Table 1. Historical Population by Jurisdiction

County / Municipality	Year of Incorporation or Formation	Census					Estimate	% Change	
		1970	1980	1990	2000	2010	2016	2000-2010	2010-2016
Asotin County	1883	13,799	16,823	17,605	20,551	21,623	22,306	5%	3%
Asotin	1890	637	946	981	1,095	1,251	1,270	14%	2%
Clarkston	1902	6,312	6,903	6,753	7,337	7,229	7,260	-1%	0%
Columbia Count	1875	4,439	4,057	4,024	4,064	4,078	3,938	0%	-3%
Dayton	1881	2,596	2,565	2,468	2,655	2,526	2,545	-5%	1%
Starbuck	1905	216	198	170	130	129	130	-1%	1%
Garfield County	1881	2,911	2,468	2,248	2,397	2,266	2,247	-5%	-1%
Pomeroy	1886	1,823	1,716	1,393	1,517	1,425	1,395	-6%	-2%
Whitman County	1871	37,900	40,103	38,775	40,740	44,776	48,851	10%	9%
Albion	1910	687	631	632	616	579	545	-6%	-6%
Colfax	1873	2,664	2,780	2,761	2,844	2,805	2,795	-1%	0%
Colton	1890	279	307	325	386	418	425	8%	2%
Endicott	1905	333	290	320	355	289	295	-19%	2%
Farmington	1888	140	176	126	153	146	155	-5%	6%
Garfield	1890	610	599	544	641	597	595	-7%	0%
LaCrosse	1917	426	373	336	380	313	315	-18%	1%
Lamont	1910	88	101	93	106	70	80	-34%	14%
Malden	1909	219	209	189	215	203	200	-6%	-1%
Oakesdale	1890	447	444	346	420	422	425	0%	1%
Palouse	1888	948	1,005	915	1,011	998	1,040	-1%	4%
Pullman	1888	20,509	23,579	23,478	24,948	29,799	32,650	19%	10%
Rosalia	1894	569	572	552	648	550	560	-15%	2%
St. John	1904	575	550	499	548	537	505	-2%	-6%
Tekoa	1889	808	854	750	826	778	780	-6%	0%
Uniontown	1890	310	286	280	345	294	335	-15%	14%

Source: Washington State Office of Financial Management, Apr 1, 2017

Table 2. Population Forecast by Jurisdiction (2040)

County	Census	Census	Estimate	Forecast				
Municipality	2000	2010	2016	2020	2025	2030	2035	2040
Asotin County	**20,551**	**21,623**	**22,150**	**22,033**	**22,196**	**22,313**	**22,358**	**22,356**
Asotin	1,095	1,251	1,270	1,263	1,273	1,279	1,282	1,282
Clarkston	7,337	7,229	7,260	7,222	7,275	7,313	7,328	7,328
Columbia County	**4,064**	**4,078**	**4,050**	**4,013**	**3,968**	**3,895**	**3,800**	**3,700**
Dayton	2,655	2,526	2,545	2,522	2,493	2,448	2,388	2,325
Starbuck	130	129	130	129	127	125	122	119
Garfield County	**2,397**	**2,266**	**2,250**	**2,220**	**2,210**	**2,202**	**2,175**	**2,143**
Pomeroy	1,517	1,425	1,395	1,376	1,370	1,365	1,349	1,329
Whitman County	**40,740**	**44,776**	**47,940**	**47,826**	**49,346**	**50,517**	**51,563**	**52,504**
Albion	616	579	545	544	561	574	586	597
Colfax	2,844	2,805	2,795	2,788	2,877	2,945	3,006	3,061
Colton	386	418	425	424	437	448	457	465
Endicott	355	289	295	294	304	311	317	323
Farmington	153	146	155	155	160	163	167	170
Garfield	641	597	595	594	612	627	640	652
LaCrosse	380	313	315	314	324	332	339	345
Lamont	106	70	80	80	82	84	86	88
Malden	215	203	200	200	206	211	215	219
Oakesdale	420	422	425	424	437	448	457	465
Palouse	1,011	998	1,040	1,038	1,071	1,096	1,119	1,139
Pullman	24,948	29,799	32,650	32,572	33,608	34,405	35,117	35,758
Rosalia	648	550	560	559	576	590	602	613
St. John	548	537	505	504	520	532	543	553
Tekoa	826	778	780	778	803	822	839	854
Uniontown	345	294	335	334	345	353	360	367
Source: Washington State Office of Financial Management, April 1, 2017 for Counties (Projected Population Growth used OFM Mediu								
City Estimates are an average of historic 30 year percentage of County Population								

Section III: Preparation of the Palouse 2040 Plan and Public Involvement

The Regional Transportation Plan (RTP) and the Transportation Improvement Program (TIP) are designed and created to fulfill requirements of the Growth Management Act (GMA) for both non-GMA and GMA members, with specific requirements for preparation of a Regional Transportation Plan (RTP) spelled out in RCW 47.80 and Washington State Department of Transportation's-RTPO Transportation Planning Guidebook. This section identifies, why this plan was needed, and how this is prepared.

Regional Transportation Planning Organizations

PALOUSE RTPO is the Washington State-authorized Regional Transportation Planning Organization in Asotin, Columbia, Garfield and Whitman Counties, since PALOUSE RTPO does not have a metropolitan planning area (MPO), which is the federally designated planning organization. The authority for creating an MPO in the Palouse region can only happen if the urbanized area of the City of Pullman reaches over 50,000 in population—or the surrounded urban areas total population reaches over 50,0000. The possibility of an MPO may arise after the 2020 census that will bring the combined population of Moscow and Pullman to more than 60,000. Having such an area, with over 50,000 individuals, is a prerequisite to the establishment of an MPO. MPOs carry out the continuous, cooperative, comprehensive metropolitan transportation planning process just like the RTPOs, except MPOs are the federally established transportation planning agencies.

The authority for RTPOs was included in Washington State's Growth Management of 1990. RTPOs coordinate transportation planning at all jurisdiction levels, including the state, to ensure an interconnected regional transportation system. The RTPO statute indicates that in urbanized areas, the RTPO is to be the same as the MPO. Palouse RTPO's Transportation Policy Board is a governing body of the Palouse RTPO, along with the Board of Directors, and is comprised of elected officials representing the following 35 member jurisdictions:

Member Counties	**Transit Members**	**Port Members**
Asotin	Asotin County PTBA	Port of Asotin
Columbia	Garfield County Transportation Authority	Port of Clarkston
Garfield	COAST Transportation	Port of Garfield
Whitman	Columbia County Transit	Port of Whitman
	Pullman Transit	

Member Cities	Member Towns	State Agencies
City of Asotin	Town of Albion	South Central Region WSDOT
City of Clarkston	Town of Colton	
City of Colfax	Town of Endicott	Eastern Region WSDOT
City of Dayton	Town of Farmington	
City of Palouse	Town of Garfield	
City of Pomeroy	Town of Lacrosse	
City of Pullman	Town of Lamont	
	Town of Malden	
	Town of Oakesdale	
	Town of Rosalia	
	Town of St. John	
	Town of Tekoa	
	Town of Uniontown	

State legislators from the 9th and 16th legislative districts are ex-officio members of the Transportation Policy Board (TPB). Representatives from WSDOT and a major employer representative also sit on the TPB, once approved by the policy board. Development of the plan is also supported by Palouse RTPO's Technical Advisory Committee (TAC). The TAC provides technical advice to the TPB and is comprised of staff from member jurisdictions of Palouse RTPO, including public works directors; transportation planners and engineers; and other staff. They provide input on plans, programs, projects, and priorities used to support the development of Palouse 2040.

Washington State Transportation Planning Requirements

The Washington State Growth Management Act (RCW 36.70A) sets forth the state requirements for a regional transportation plan. As noted above, many of the State of Washington regional transportation planning requirements overlap with the federal requirements. Under RCW 47.80, Palouse 2040 is to be prepared in cooperation with WSDOT, ports, transit operators, and local governmental agencies in the region. Palouse 2040 is required to:

- Identify existing and planned transportation facilities and programs that should function as an integrated regional transportation system;

- Establish level of service standards for certain state highways and all other routes including air and river navigation, to be developed jointly with WSDOT;
- Include financial guidelines showing how the regional transportation plan can be implemented;
- Assess regional development patterns, capital investments and other measures; and
- Set forth a proposed regional approach to guide the development of the integrated, multimodal regional transportation system. Standards and guidelines are provided by the state to assist RTPOs in preparing the transportation plan. They cover identification and application of data, identification of projects, financial evaluations, and agency and public coordination activities.
- Be based on a least-cost planning methodology that provides the most cost-effective transportation facilities, services, and programs.

Public Participation

Public participation is a key element of the transportation planning process. In 2015, the Palouse Regional Transportation Planning Organization developed an update to the Public Participation Policy seeking to:

- Create opportunity for appropriate broad-based, early, continuous and meaningful public participation in all plans, programs, and projects;
- Provide a forum for discussion of regional issues;
- Foster an open exchange of information and ideas; and
- Engage the public in decision-making processes through a constructive community dialogue.

As part of implementing the Public Participation Plan, The Palouse RTPO has guided outreach activities during the planning process and is included in Appendix B.

Identification of Interested Parties

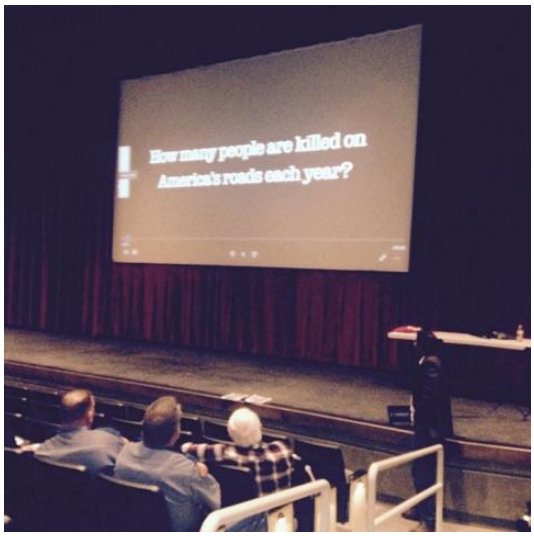
An interested party is considered to be an individual or group potentially affected by Palouse 2040 including those who may not be aware they are affected. These interested parties include the general public; persons with limited English proficiency; representatives of public transportation users and employees; freight shippers and those offering freight transportation services; representatives of persons with disabilities; non-motorized representatives; minority and low-income populations; and other interested parties. Stakeholders and interested parties were

identified based on input from Palouse RTPO's Steering Committee, TAC and many other resources, as well as past planning processes. Other interested parties including federally recognized Indian tribes, federal agencies, and state and local agencies were consulted as part of the planning process to update the plan.

Outreach and Public Information

The key components of outreach established in the public involvement process for Palouse 2040 included seven public meetings in four counties, and various additional meetings; online public surveys and individual stakeholder meetings, monthly meetings with the Regional Transportation Plan Steering committee, the Citizen Advisory Committee meetings, and a public comment period.

Several materials were developed to assist with a variety of outreach activities. These include visual display boards depicting previously adopted goals and priorities, projected population and traffic growth in 2040, and a project fact sheet providing general information about the plan update and how to get involved. Also, a PowerPoint presentation that was updated throughout the planning process to keep current, a comment form to provide written input, and a memo summarizing the public involvement work done throughout much of the planning process. The visual display boards, PowerPoint presentation, along with the surveys of a project prioritization exercise, are included in Appendix C, D and D1.



Palouse RTPO's Transportation Policy Board (TPB) is the decision-making body for matters relating to regional transportation planning and has the authority to adopt the plan. The TPB meets quarterly and as needed. Information about the plan was presented at various TPB meetings in 2016 and 2017 prior to the release of the draft plan in Oct. 2017 for public review and comment. Public comment is encouraged at all TPB meetings, Steering Committee, Citizen Advisory Committee meetings, and Technical Advisory Committee meetings. Palouse RTPO's Technical Advisory Committee provides technical advice to the TPB on transportation matters. The TAC had three meetings during the planning process where elements of the plan were discussed. Additionally, a Subcommittee/Steering Committee with TAC members and policy board members was formed, with monthly set

meetings. The RTP 2040 subcommittee met nine times prior to the release of the draft plan in Oct. 2017. The TAC is not permitted to take public comment, though the public is welcome to attend TAC meetings.

Public Workshop

Palouse RTPO held seven public workshops to gather input from the general public during the planning process. The workshop, called the *2016 Regional Transportation Plan Meeting*, was held in June 2016 at seven different cities—Dayton, Asotin, Clarkston, Pomeroy, Oakesdale, Colfax, and Pullman. To make the planning process accessible and meaningful to the general public, the workshop, and the open house that preceded it, employed visual communication techniques. The workshop included exhibits related to key transportation funding issues, regional travel results displayed on maps, opportunities to discuss the project with representatives of the project team, and opportunities for written and verbal comment.

A public review and comment period began shortly after the draft plan was released by the TPB for review. The TPB released the plan comment period at their Oct. 10, 2017, meeting, with public comment period to begin from Jan 22, 2018. All comments received during 30-day public comment period, until the plan was adopted in March 13, 2018, are included in Appendix D and D1.

Public Input

Opportunities for public input occurred throughout the planning process, including during the plan development and the draft plan comment period. Input received during the plan development is summarized in Appendix D and D1.

Input from the general public and interested parties was obtained through the opportunities for public involvement summarized at later section of this plan.

Comment Period

Upon issuance of the draft plan, a comment period of at least 30 days was established prior to the adoption of Palouse 2040 by the Transportation Policy Board, with the comment period occurring from Oct. 27, 2017, through Nov. 27, 2017.

Organization of the Plan

Palouse 2040 is organized to assist member jurisdictions, WSDOT, the public, and others with:

- Understanding how the plan was developed;
- Defining the region's transportation priorities;
- Summarizing high priority transportation strategies and improvements for various parts of the region;
- Documenting potential environmental issues of the regional projects; and
- Identifying funding constraints and available funding options.

Plan Updates

This plan is reviewed every two years and updated as needed to remain in state compliance and to maintain the region's eligibility to receive federal and state funding for transportation improvement projects. Under state law, Regional Transportation Plans are required to be updated every five years in an air quality attainment area. The Palouse region is in a nonattainment area and, therefore, the Palouse region is required to periodically update the regional transportation plan and strategy. Palouse RTPO have been updating the plan every five years and intend to do so in future as well. The Transportation Policy Board can, however, amend the plan as changes occur during that time period. This strategy was approved and revised in 2016 as part of the planning process to update the plan.

Section IV: Relationship to Other Activities, Studies and Plans

Palouse 2040 is a document that is built upon the priorities and objectives established in local agency plans and the Washington State Transportation Plan 2040, Phase I and II. Regional transportation planning provides a unified blueprint to ensure that the efforts of all affected jurisdictions are coordinated and that the individual parts of the overall transportation system function as a whole. This plan is also built upon the efforts outlined in the previous plan as it established regional transportation projects and strategies that have been completed or are underway.

Land use and transportation are always interrelated, as decisions made in one realm affect the other and vice versa. Thus, while history and current commitments provide the initial basis for Palouse 2040 Plan. The plan also must consider future land use and growth patterns. It needs to match transportation resources to prioritize existing deficiencies, as well as forecast growth and support the economic development of the Palouse region. Understanding the broad regional travel characteristics also assists in developing the plan. Palouse 2040 also incorporates key strategies from the updated Coordinated Public Transit-Human Services Transportation Plan (CPT-HSTP) for Palouse RTPO counties. The CPT-HSTP addresses transportation issues for special needs populations and average public transportation commuters.

Regional Land Use Growth

While the history of the region establishes the background for the plan, forecast growth patterns also affect priorities. Population and employment growth will affect transportation needs throughout the region. Local population dynamics are highly influenced by an area's employment climate. Generally, population growth is based primarily on immigration, driven by people moving into an area in search of new jobs. In large part, population growth depends on how favorable an area's employment opportunities are in relation to other areas. Stated simply, people follow jobs, and in turn create demand for local goods and services, such as housing.

Regional Travel Patterns

Regional travel patterns vary in Asotin, Columbia, Garfield, and Whitman counties. Whitman County has a population of 48,851 (2016) and is the home of Washington State University in Pullman, with student enrollment of more than 25,000. Except for the City of Pullman (an urban town), many of the towns and cities in Whitman and other counties in our region are rural towns with a population of 5,000 or less. Many of our road users during the school year are mixed users,

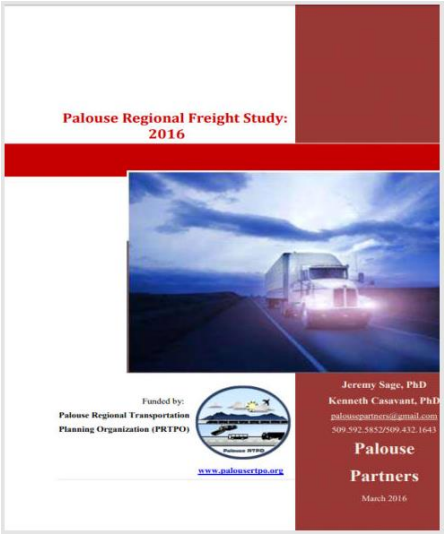
such as students and the residential population, however, during the summer; the road users are mainly tourists and local residents.

The region has five public transit agencies providing local transportation within their respective counties. Many of the road users are passenger cars and, on an average, drive anywhere from 8 to 30 mi. a day. Our regional highways involve connections to Moscow, Idaho, with US 95. Additionally, high average daily traffic (ADT) occurs on US 195, SR 26 and US 12.

Since Palouse is dominantly a farming community, with growing Washington State University and University of Idaho student communities, many of our road users are freight and private passenger cars. Our region is also investing in various different modes of travel, such as bike paths, trail ways, sidewalks, ADA access, ports and river navigation, electric cars and charging stations, etc. to improve and enhance other various modes of transportation.

Palouse Regional Freight Study

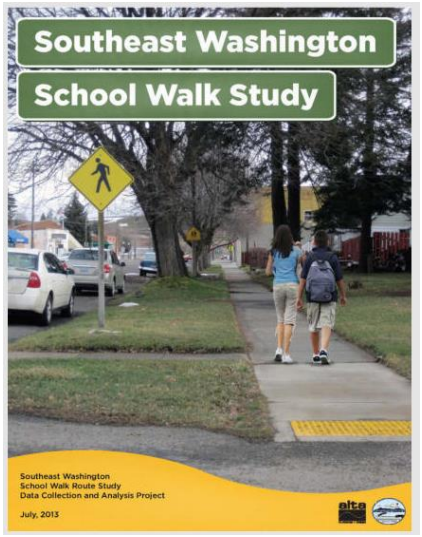
The Palouse RTPO region is primarily a freight-oriented region and a farming community. Palouse RTPO conducted its first regional freight study in 2007. The study was determined to identify major freight routes, freight movement, and tonnage produced within the region. Although it has always been difficult to find the origin and destination of each freight shipment, the study identified the improvement needs, needed freight projects and how, as a region, we can enhance freight operations. This study complements freight, and its movement, within the region, for the Palouse RTP. A latest Regional Freight Study was developed in 2016 and a list of identified projects and investments can be found in that plan. The list can also be seen in table 14 of this plan.



Safe Routes to School Plan

This plan compliments previous and the current Palouse Regional Transportation Plan. The plan was developed in 2013 and the purpose of this plan was to provide guided safe routes to school recommendations for each of the 23 participating elementary and middle schools in Asotin, Columbia, Garfield, and Whitman counties. These recommendations will guide active transportation improvements near schools, increasing safety around schools, and children's

health through exercise. In addition, the plan helps school districts, state, students, parents, counties and other local governments in identifying the need for investment to improve children's safe access to school zones, and compliments with WSDOT's Safe Routes to School funding program that can allow additional funding to the region.



To better understand the needs of each individual school and community, each elementary and middle school in the Palouse Regional Planning Organization's boundaries was evaluated for its school access conditions related to walking and bicycling. Several tools were used to identify existing strengths and weaknesses within a 1-mile radius of schools. The locations of the following facilities were documented at each school: marked crosswalks (standard double parallel white lines), high visibility crossings ("zebra" stripes), crossing guard locations, designated school walk/bike routes, shared use path facilities, and school zone traffic signage.

Local Agency Transportation Plans

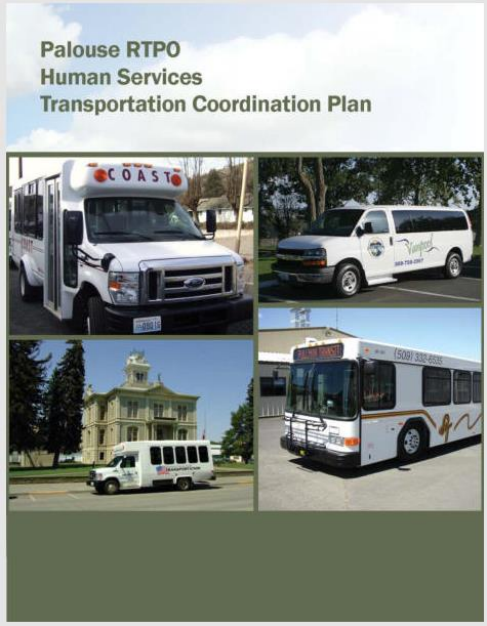
As required by the Growth Management Act, applicable Palouse jurisdictions have prepared, and regularly update their comprehensive plans. Comprehensive plans include transportation elements. The transportation elements set the communities' priorities and improvement strategies to address existing and future transportation needs. These plans primarily focus on arterials and collector streets within the agency's jurisdiction; however, needs in designated urban growth areas and connecting routes in other jurisdictions are also described in some of the plans. The local transportation elements were reviewed to identify possible transportation projects for Palouse 2040 RTP. The planning process combined projects from WSDOT and local jurisdictions into strategies to define the recommended framework for the plan, based on the region's priorities and policies.

The Palouse 2040 fiscally unconstrained project list incorporates all regionally significant local agency projects that are proposed to expand capacity on the regional transportation system. The plan provides financial guidance showing how the projects and strategies can be implemented. Only the highest priority projects, based on the region's criteria and project-level evaluation, are

included in the fiscally constrained project list, which are identified by the local agencies. Palouse 2040 also identifies an illustrative list of transportation planning projects for the regional transportation system, should additional funding become available outside of what is reasonably expected in the plan.

Palouse 2040 also is consistent with and builds from, local land use criterion and forecasts from the comprehensive plans. This process provides consistency between the local land use plans and the regional transportation system needs. Population, household, and employment forecasts utilized in Palouse 2040 were coordinated with local agencies' forecasts used for comprehensive plan update processes in 2016. Development of the plan included a review of all agency comprehensive plans. The objective was to ensure that the Palouse 2040 Plan and local plans were in alignment.

Coordinated Public Transit- Human Services Transportation Plan



Washington State law requires RTPO's to prepare a Coordinated Public Transit and Human Services Transportation Plan (CPT-HSTP), also known as Human Services Transportation Coordination Plan (HSTCP) to be eligible for certain state funding programs for public transit agencies within the RTPO boundaries. The CPT-HSTP serves as a unified, comprehensive strategy that identifies the transportation needs of individuals with disabilities, older adults, and low-income populations. The Washington State Department of Transportation is the designated recipient for federal funding programs aimed at achieving coordinated human services transportation in Washington State and is responsible for allocating federal funding.

WSDOT requires that human services transportation projects be prioritized at a regional level and derived from a locally developed CPT-HSTP. The latest plan for Palouse RTPO counties was developed in 2014 through the coordination of the Palouse Regional Transportation Planning Organization, Palouse RTPO transit agencies, private non-profits, Indian tribal governments, and other stakeholders. The plan recommendations were organized as coordination initiatives to

better reflect the breadth and depth of strategies to achieve a fully coordinated system organized by policies, programs, and projects. The CPT-HSTP Identifies the following strategies:

- Preserve existing services;
- Expand services;
- Address high need areas;
- Improve regional connections;
- Increase user knowledge;
- Improve existing service timeliness;
- Utilize existing services;
- Expand driver training;
- Improve provider-user coordination;
- Utilize technology;
- Inform users of mobility options;
- Improve provider regional coordination;
- Promote innovation;
- Promote environmental sustainability; and
- Leverage funding.

Each of these strategies had one or more activities associated with it. In addition to the above strategies and activities, the CPT-HSTP identified several options for continued coordination and implementation following the CPT-HSTP in 2014. Below are the coordination and implementation options:

- An online forum which could provide an avenue for committee members to keep abreast of ongoing efforts, coordinate, and provide input;
- Mobility managers—which other counties use as a way to improve communication between organizations and the users on an ongoing basis;
- Monthly group meeting—which other counties utilize to coordinate on issues;
- Designate a regional mobility manager, rather than a county level mobility manager, which would be valuable in helping address cross-county coordination challenges; and
- Hold an annual transportation forum, which could provide updates on progress and reconvene the advisory committee organizations.

The Coordinated Public Transit-Human Services Transportation (CPT-HSTP), reflects the needs of special needs populations and human services transportation delivery in Palouse RTPO counties. Palouse 2040 identifies how these services fit as part of the overall regional transportation system and will initiate a kick-off meeting in late 2017-early 2018, to develop a new CPT-HSTP for 2018 to 2022.

Section V: Correlation of Regional and Statewide Policy Goals

Washington State Transportation Plan

The Washington Transportation Plan (WTP), Phase 1, finalized in January 2015, while the Phase 2, now out for public comments (September 2017), provides the umbrella for all metropolitan and regional transportation plans across Washington State. The WTP sets forth the following six policy goals, in no particular order, for future investments in the transportation system:

- Economic Vitality;
- Preservation;
- Safety;
- Mobility;
- Environmental; and
- Stewardship.

The regional priorities in the Palouse 2040 Plan align with these state policy goals. In addition, Palouse RTPO also promotes WSDOT's practical solutions and Corridor sketch initiative in funding decisions, where applicable. The process for establishing regional priorities and identified improvement projects within the fiscally constrained and unconstrained projects in this plan, supports and is consistent with these WTP objectives.

The second phase of the WTP involved identifying and prioritizing specific program investments and developing the plan update. As part of this phase, the Transportation Commission evaluated the nine key issues described above and developed "Six Investment Guidelines" which were used to select investment targets. The Six Investment Guidelines are described as follows:

1. **Economic vitality**—*Strong Economy and Good Jobs*, Moving Freight: improve freight movement and support economic sectors that rely on the transportation system, such as agricultural, tourism and manufacturing;
2. **Preservation**—Preserve and extend prior investments in existing transportation facilities and the services they provide to people and commerce;
3. **Safety**—Target construction projects, enforcement and education to save lives, reduce injuries, and protect property;

4. **Mobility**—*Transportation Access, System Efficiencies, Bottlenecks and Chokepoints, Building Future Visions*: facilitate movement of people and goods to contribute to a strong economy and a better quality of life for our citizens;

5. **Environmental quality and health**—*Health and the Environment*: bring benefits to the environment and to our citizens' health by improving the existing transportation infrastructure.

6. **Stewardship-** To continuously improve the quality, effectiveness, and efficiency of the regional transportation system. The integration of land use and transportation policies to protect and preserve essential public transportation facilities, while working to better manage the transportation system, will provide for optimum efficiency and effective movement of people and goods.

Statewide Transportation Concurrency Requirements

The purpose of concurrency is to assure that public facilities and services necessary to support development are adequate to serve the development, at the time it is available for occupancy and use, without decreasing service levels below locally established minimums. Concurrency ensures consistency in land use approval and that the development of adequate public facilities is implemented; it also prevents development that is inconsistent with the public facilities necessary to support the development (WAC 365-198-840).

Under state law (RCW 36.70A.070) the desired outcome would be to ensure transportation facilities and strategies are in place at the time of development; or that a financial commitment is in place to complete the improvements or strategies within six years (RCW 36.70A.070). If neither of these standards can be met, the remaining option would be to petition the state to change the level of service standards or place a moratorium on further development until a strategy is in place. While the economic downfall has inadvertently helped maintain current levels of service by slowing down growth and development, numerous intersections will likely fail to meet the level of service standards within twenty years, if nothing is done. This may preclude further development from occurring until improvements are made, or actions are taken to meet the level of service standards.

Since there are several high-priority unfunded system needs statewide, the purpose of these six policy guidelines is to set overall priorities and form a basis of the WTP. In order to determine the most beneficial investment, the commission prioritized them by the highest priorities.

Explanation of Regional Issues to Statewide Issues Correlation

Although regional issues facing the Palouse region discussed above in some cases are unique to this region, they correspond well with the broad statewide issues that have been identified through the WSDOT Statewide Transportation Plan.

Various regional issues are discussed in the Region's Key Issues section of this plan. There are various correlations between regional and statewide issues that can be made, or that may become more evident as time passes or more detailed studies are performed. However, for the purpose of this document, those relationships that appear to be the strongest have been identified in various sections such as the Region Wide Transportation Program, and Region Wide Modes and Key Issues sections of this plan.

Section VI: Transportation Improvements & Programs

The regional multimodal transportation system consists of state highways, county roads, city streets, non-motorized transportation facilities, transit facilities, airports, marine ports, and railroads. This section of Palouse 2040 summarizes the existing and proposed regional transportation system and regional transportation improvement projects.

Regional Transportation Systems

The four counties of Asotin, Columbia, Garfield, and Whitman that comprise the Palouse Regional Transportation Planning Organization (PRTPO) recognize the importance of a multimodal transportation system for the movement of people and goods. This includes roadway networks for passenger cars, buses, and trucks. Bicycle and pedestrian systems, transit services and airports, serve needs for the movement of passengers as well as some freight. Barging services move significant amounts of freight through the region via the Snake River. Short line railroads meet a significant need and provide linkages to the rest of the state and country to move important agricultural products from the region to outside markets.

Roadway Network Components

In order to fully understand the magnitude of the task of providing an operable transportation system, it is important to consider the full system of roadways. There are many miles of county roadways in the region as well as local roads that are operated and maintained by the cities in the region. State highways also provide a critical component of the transportation system in linking the region internally as well as to the rest of the state and nation. Many miles of state and federally owned and operated roadways also serve state parks and national forests. Typically, roadways are functionally classified within each jurisdiction as to the type of service provided. Table 3 on the following page summarizes the mileage of city streets, county roads and state highways by functional classification.

In some areas of the region, there are roadways that have significant grades. There are also many roadways that have frequent significant horizontal alignment changes to follow valleys or hillsides. The challenges that arise from such roadways are significant in that they pose maintenance and driver comfort issues. Each of the counties in the region has stewardship of some roadways that have some or all of the following characteristics: gravel surface, narrow lanes, small or non-existent shoulders, no guardrails, and seasonal weight restrictions. These

issues will be discussed later. Table 4 on the following page was prepared to show the extent of roadway surface type for each county within the region.

Table 3. Roadway Functional Classification by County

Owner/Functional Classification	Asotin	Columbia	Garfield	Whitman	TOTAL
Cities (all combined)	46.78	19.01	18	202.85	286.64
County Roads					
Functional Classification					
Arterial	20.57	0	0	0	20.57
Collector	152.33	229.17	213.03	614.51	1209.04
Local Access	226.35	271.68	234.08	1,282.68	2,014.79
Total	**399.25**	**500.85**	**447.11**	**1897.19**	**3244.4**
State Roads					
Functional Classification					
Interstate Highways	-	-	-	-	0
Principal State Highways	12.19	29.02	43.18	130.71	215.1
Minor State Highways	43.19	-	-	2.31	45.5
Collector State Highways	-	15.02	-	145.33	160.35
Total	**55.38**	**44.04**	**43.18**	**278.35**	**420.95**
Other					
WA State Parks and Recreation	1.59	1.36	-	4.43	7.38
WA State Department of Natural Resources	63.86	186.26	4.43	-	254.55
WA State Fish and Wildlife	26.4	6	1.5	-	33.9
US Forest Service	22.42	49.84	39.42	-	111.68
National Fish and Wildlife Service	30.85	-	-	-	30.85
National Park Service	-	-	-	0.83	0.83
US Department of Energy	-	14.2	-	-	14.2
US Army CORPS of Engineers	-	7	-	29	36
Total	**145.12**	**264.66**	**45.35**	**34.26**	**489.39**
COMBINED TOTAL	**646.53**	**828.56**	**553.64**	**2412.65**	**4,441.38**

Source: County Roads - County Road Administration Board 2016 Certified Road Log.

City, State, Other Roads – Palouse RTP 2010

Note: Other Mileage is all mileage that is not owned by counties, cities, or WSDOT.

City Mileage for Whitman County also includes roads owned by Washington State University (13.68 miles).

Examination of Tables 3 and 4 reveals several important characteristics of each county roadway network:

- Total roadway mileage within the four counties of all state and local roads combined is nearly 4,450 centerline miles.
- Combined city roadway mileage makes up approximately 6.5% of the region's total.
- County roadway mileage for the four counties combined makes up nearly 73% of the mileage in the region at over 3,240 centerline miles, with just under 885 (27%) miles are paved.
- Nearly 445 miles of the county arterial roadways are unpaved.
- Some counties have non-arterial roadways that are paved.
- A significant number of miles of unpaved roads must be maintained in each county, some being arterial roads, that provide access to farms in the county.

Table 4. Roadway Surface Type and Total Mileage of County Roads

System Component		County				Total
		Asotin	Columbia	Garfield	Whitman	
Urban Roads	Access Roads	59.9	0	0	0.00	**59.90**
	Arterial Roads	20.57	0	0	0	**20.57**
	Total Urban Roads	80.47	0	0	0	**80.47**
Rural Roads	Access Roads	166.45	271.68	234.08	1282.68	**1,954.89**
	Arterial Roads	152.33	229.17	213.03	614.51	**1,209.04**
	Total Rural Roads	318.78	500.85	447.11	1897.19	**3,163.93**
	TOTAL System C/L Mi	**399.25**	**500.85**	**447.11**	**1897.19**	**3,244.40**
Paved Arterial C/L Mi		100.3	141.41	123.58	418.35	**783.64**
Paved Access Road C/L Mi		66.99	5.34	5.75	19.69	**97.77**
Unpaved Arterial C/L Mi		72.6	87.76	89.45	196.16	**445.97**
Unpaved Access Road C/L Mi		159.36	266.34	228.33	1262.99	**1917.02**
Paved Arterial Lane Mi		203.25	282.82	247.15	836.7	**1,569.92**
Unpaved C/L Mi		231.96	354.1	317.78	1459.15	**2362.99**
TOTAL System C/L Mi		**399.25**	**500.85**	**447.11**	**1897.19**	**3244.4**

Sources -- County Road Administration Board 2016 Annual Report; 2016 Certified County Road Log.

Freight and Goods Transportation System

Within the four counties, there are nearly 675 miles of county roadways included in the Statewide Freight and Goods Transportation System. A summary of mileage in each county is included in Table 5. It is interesting to note that in the table is the percentage of adequate roads in each

county, which indicates the challenges that Columbia and Whitman counties are having maintaining their roadway network.

Additionally, nearly 421 miles, and various city road segments that are part of the FGTS 2015, are mentioned in the Table 6 and 7 respectively.

Table 5. Freight and Goods Transportation System of County Roads

FGTS	County				Total
Truck Route Class	Asotin	Columbia	Garfield	Whitman	
T-1; > 10 million tons/year	-	-	-	-	-
T-2; 4 - 10 million tons/year	0.15	-	-	-	0.15
T-3; 300,000 - 4 million tons/ year	22.95	10.3	-	3.4	36.65
T-4; 100,000 - 300,000 tons/year	19.98	49.1	10.13	37.97	117.18
T-5; 20,000 tons in 60 days	-	146.81	125.75	248.08	520.64
T-6; > 100,000 tons, (not every year)	14.34	-	-	-	14.34
T-8; Will be if no barges on Snake	-	-	-	5.74	5.74
TOTAL F&GS Mileage	43.08	206.21	135.88	289.45	674.62
Total Adequate	37.62	11.2	113.03	36.04	197.89
Percent Adequate 2016	87.33%	5.43%	83.18%	12.45%	29.33%

SOURCE: County Road Log Certified 1/1/2016, CRAB 2016 Annual Report

Adequacy defined by Cost Responsibility Study - All Weather Roads

Table 6. Freight and Goods Transportation System of State Roads

FGTS	State Routes				Total
Truck Route Class	Asotin	Columbia	Garfield	Whitman	
T-1; > 10 million tons/year	-	-	-	-	-
T-2; 4 - 10 million tons/year	0.39	-	-	82.82	83.21
T-3; 300,000 - 4 M tons/ year	54.74	44.04	43.18	155.01	296.97
T-4; 100,000 - 300,000 tons/year	0.25	-	-	40.52	40.77
TOTAL F&GS Mileage	55.38	44.04	43.18	278.35	420.95

US 12 and US 195 are both significant corridors with respect to the movement of freight in the region. The roadways that access the port facilities on the Snake River and rail loading facilities are also very important to the region. A new rail center north of Oakesdale will be an important addition to the region that will promote modal competitiveness and will need good all-weather road access.

It's important to note that dramatic changes such as an increase in fuel prices could result in a decline in truck traffic along the principal through corridors of the region with a corresponding increase along local arterials and collectors serving the existing rail stations within and adjacent to the region. Likewise, it is expected that environmental considerations related to salmon will result in the ongoing seasonal drawdowns of the Columbia River being mandated. Any such action will hinder navigation and thus have a significant impact on dryland grain from the Palouse region presently destined for Snake River ports.

Table 7. Freight and Goods Transportation System of City Roads

County	City	Route Name	Start Location	End Location	2015 FGTS Class
Asotin	Asotin	1st St	SR 129	Wilson St	T-3
Asotin	Asotin	Wilson St	1st St	East City Limit	T-3
Asotin	Asotin	Baumeister Drive	West City Limits	SR 129	T-4
Asotin	Clarkston	5th St	Port Drive	Fair St	T-4
Asotin	Clarkston	Confluence Way	Fair St	SR 12	T-4
Asotin	Clarkston	Fair St	5th St	Confluence Way	T-4
Asotin	Clarkston	Port Drive	15 Street	5th St	T-4
Columbia	Starbuck	Main Street	SR 261	South City Limits	T-3
Columbia	Dayton	4th Street	SR 12	Eckler Mtn Rd	T-4
Columbia	Dayton	4th Street	Eckler Mtn Rd	South City Limits	T-5
Columbia	Dayton	Eckler Mtn Rd	4th Street	East City Limits	T-5
Garfield	Pomeroy	15th Street	South City Limits	SR 12	T-5
Garfield	Pomeroy	6th Street	South City Limits	SR 12	T-5

County	City	Route Name	Start Location	End Location	2015 FGTS Class
Whitman	Albion	Albion Rd	City Limits	Front Street	T-5
Whitman	Albion	Pullman Albion Rd	City Limits	Albion Rd	T-5
Whitman	Colfax	Almota Rd	City Limits	Fairview St	T-4
Whitman	Colfax	Fairview St	Almota Rd	Main St	T-4
Whitman	Colfax	Main St	Fairview St	SR 195	T-4
Whitman	Endicott	S Endicott Rd	City Limits	E Street	T-4
Whitman	Endicott	E Street	Within City Limits		T-5
Whitman	Endicott	Palouse St	E Street	City Limits	T-5
Whitman	Farmington	Washington St	Within City Limits		T-4
Whitman	Farmington	3rd	Washington St	North City Limits	T-5
Whitman	Garfield	Garfield Farmington Rd	City Limits	SR 27	T-5
Whitman	Lacrosse	Leslie Avenue	City Limits		T-5
Whitman	Lacrosse	Main Street	City Limits		T-5
Whitman	Lamont	Main Street	Within City Limits		T-5
Whitman	Oakesdale	3rd St	Steptoe Ave	Bush St	T-3
Whitman	Oakesdale	Bush St	3rd St	South City Limits	T-5
Whitman	Oakesdale	Steptoe Ave	SR 27	3rd St	T-5
Whitman	Palouse	Almonta St	South City Limits	SR 27	T-5
Whitman	Pullman	Terre View Dr.	SR 27	Hopkins Court	T-3
Whitman	Pullman	Bishop Blvd	SR 27	SR 270	T-3
Whitman	Pullman	Johnson Rd	South City Limits	Bishop Blvd	T-3
Whitman	Pullman	Old Wawawai Rd	City Limits	SR 270	T-3
Whitman	Pullman	Fairmount Rd	SR 27	Bishop Blvd	T-3
Whitman	Pullman	Terre View Dr.	SR270	Grimes Way	T-3
Whitman	Pullman	Stadium Way	SR 27	Valley Rd.	T-4
Whitman	Pullman	Terre View Dr./Airport Rd	Grimes Way	East City Limits	T-5
Whitman	Rosalia	7th St	Rosalia Rd/Whitman St	8th St	T-5
Whitman	Rosalia	8th St	7th St	East City Limits	T-5
Whitman	Rosalia	Rosalia Rd/Whitman St	South City Limits	North City Limits	T-5
Whitman	St John	Front St	Lancaster Rd	SR 23	T-5
Whitman	St John	Park St	SR 23	South City Limits	T-5
Whitman	Tekoa	Park St	SR 27	South City Limits	T-5
Whitman	Union Town	Blair St	SR 195	City Limits	T-5

(Source WSDOT FGTS System)

Bridges

Several bridges in the county roadway system have been constructed to serve a vital role in making important connections between areas of the county and to provide a complete roadway system that accesses farms and cities throughout the region. These bridges must be maintained as well. Table 8 summarizes the number of bridges in each county as well as their condition.

Whitman County Bridge

Town of Rosalia Railroad Bridge

Table 8. Bridge Data by County

Counties	Year	County Owned Bridges	Bridges Posted or May Consider Posting		Bridges with Posting Not Required		Deficient Bridges *
			FAR	NFAR	FAR	NFAR	
Asotin	2016	18	0	0	13	5	2
Columbia	2016	60	2	2	30	26	9
Garfield	2016	32	1	0	19	12	5
Whitman	2016	239	7	7	112	113	56
Total		349	10	9	174	156	72

Source: CRAB Annual Reports 2016
Notes: Bridges 20 Feet or Greater in Length
FAR = Federal Aid NFAR = Non-Federal Aid

* Deficient Bridges are listed as Structurally Deficient or Functionally Obsolete

Table 9. Bridge Replacement Cost

County	County Owned Bridges	Bridges Posted or May Consider Posting				Bridges with Posting Not Required				Deficient Bridges *	Total Sq. Ft	Total Replacement Cost (In Millions)
		FAR	Sq. Ft	NFAR	Sq. FT	FAR	Sq. Ft	NFAR	Sq. FT			
Asotin	18	0	0	0	0	13	129,858	5	9814	2	139,672	$ 90.78
Columbia	60	2	3722	2	2059	30	53693	26	38949	9	98,423	$ 63.97
Garfield	32	1	1695	0	0	19	17117	12	12538	5	31,350	$ 20.38
Whitman	239	7	16905	7	5753	112	216852	113	148199	56	387,709	$ 252.01
Total	349	10	22322	9	7812	174	417520	156	209500	72		

Table 10. Small Structures by County

	Asotin	Columbia	Garfield	Whitman	TOTAL
Number of Small Structures < 20 ft.	25	175	8	62	270

Examination of the table 8 shows that there are 349 bridges to maintain, with Whitman County having the most, at 239. Overall, progress has been made in recent years to reduce the number of bridges requiring posting and also reducing the number of deficient bridges overall. Close inspection of the table shows that, even though the counties are taking appropriate actions to improve bridge structures, older bridges are deteriorating such that the length of the list of deficient bridges does not decrease proportionately to work completed.

Also significant in maintaining the roadway system is the number of structures less than 20 feet in length. The replacement of these structures does not have a designated funding source and can expend a significant portion of county maintenance funds. Data obtained from the County Road Administration Board (CRAB) indicates the magnitude of these structures that must be maintained and is shown in Table 9, including replacement costs. Cities also have to maintain such structures, as well, however, data is not as readily accessible.

Roadways of regional significance have been identified within each county. Roadways that fit the definition of "regional" were taken from RCW 47.80.030.

(i) Crosses member county lines;

(ii) Is or will be used by a significant number of people who live or work outside the county in which the facility, service, or project is located;

(iii) Significant impacts are expected to be felt in more than one county;

(iv) Potentially adverse impacts of the facility, service, program, or project can be better avoided or mitigated through adherence to regional policies;

(v) Transportation needs addressed by a project have been identified by the regional transportation planning process and the remedy is deemed to have regional significance; and

(vi) Provides for system continuity;

By definition, all state highways are considered to have regional significance. Since many roads are used to haul grain and other produce to markets outside the region, all roads on the Freight and Goods Transportation System are also considered to be of regional significance. Other functionally classified roads provide access to recreational facilities in the region that attract visitors statewide, as well. All railroads, airports, transit systems and non-motorized facilities are considered regionally significant, also. Regionally significant roads and the Freight and Goods Transportation System Roadways and the classifications are shown in Figure 2 below.

Figure 2: Palouse RTPO Freight and Good System and Roadway Network

Since many roads are used to haul grain and other produce to markets outside the region, this was a major factor in the discussion of regionally significant facilities. In addition, there are several recreational opportunities along the Snake River as well as outdoor camping and hiking destinations situated in the Umatilla National Forest in the southern portion of the region, to which people within and outside the region travel. Given the agricultural nature of the region, and relatively sparse population, traffic volumes were not a major factor in determining which roadways serve a regional function. The discussion of regional roadways resulted in those facilities shown in Figure 3. A list of regionally significant roadways by jurisdiction is included in Appendix E and includes some city streets, primarily in the cities of Clarkston and Pullman as well as several county roads.

River Transportation

The Snake River serves an important function in the Palouse region as it provides the means to transport significant amounts of grain and other commodities that are grown and produced in the region. The construction of four major dams on the Snake River in the 1950s to 1970s, complete with lock facilities, enables ocean-going vessels to travel inland as far as Lewiston, Idaho. Three of these dams serve the Palouse Region: Lower Monumental Dam, Little Goose Dam, and Lower Granite Dam.

Port facilities located along the Snake River are operated by port districts in each county. Specific ports include the following:

- Columbia Grain Growers Association
- Port of Garfield
- Port of Central Ferry
- Port of Almota
- Port of Wilma
- Port of Clarkston

Grain shipments are a major part of the port's freight activities, accounting for 85% of the total commodities shipped from the Port of Wilma (Port of Whitman County), Port of Garfield and other two Ports of Whitman County (Central Ferry and Almota). The grain shipped from these sites is trucked in from Montana, Oregon, Colorado, the Dakotas, Idaho, and the Great Plains states and from farms within the PRTPO region. Lumber is also an important product shipped through the Port of Clarkston.

Increased tonnage will depend upon a number of factors including expansion of foreign markets, federal government policies and programs, reservoir drawdowns related to endangered fish species, costs of trucking grain, availability of rail cars, waterway user fees and increased availability of space on ocean-going ships (in Portland, Oregon).

The annual tonnage of commodities shipped through the locks at Lower Monumental Dam (just west of the region in Walla Walla County), Little Goose Dam, and Lower Granite Dam is shown in Table 11.

Table 11. Total Commodities Shipped Through Area Locks

Year	Lower Monumental		Little Goose		Lower Granite		Total	Annual Percentage Change (%)
	Vessels	Tonnage	Vessels	Tonnage	Vessels	Tonnage	Tonnage	
2010	1044	2,554,000	928	2,226,000	873	1,265,000	6,045,000	1%
2011	967	2,325,000	884	2,034,000	732	1,168,000	5,527,000	-9%
2012	1047	2,776,000	930	2,593,000	830	1,510,000	6,879,000	24%
2013	954	2,529,000	863	2,281,000	714	1,312,000	6,122,000	-11%
2014	948	2,489,000	884	2,325,000	826	1,345,000	6,159,000	1%
2015	821	1,994,000	794	1,880,000	636	1,044,000	4,918,000	-20%
2016	1000	2,314,000	925	2,115,000	738	1,118,000	5,547,000	13%

(Resource: Navigation Data Center)

In addition to grain elevators situated near the water ports, the port districts also operate a variety of other facilities including inland industrial and commercial sites near Pomeroy, Colfax, and Pullman. The Port of Whitman also operates two airports.

In addition to creating the ability to carry commodities both up and down the Snake River, the dams create large bodies of water, which are an added recreational feature that continue to grow in popularity. The Port of Clarkston allows recreational tour boats and other touring type activities to use the port facility. Recreational boating is also an important feature on the Snake River.

Several state parks, as well as other recreational facilities, are situated along or near the Snake River as shown below:

- Boyer Park
- Central Ferry State Park
- Lyons Ferry Park
- Palouse Falls Park
- Wawawai County Park

Railroads

Although in the past, several railroads served the region, only the Palouse River & Coulee City South Subdivision (PCC South Subdivision) in Columbia County, and the Palouse River and Coulee City Railroad and the Camas Prairie Railroad in Whitman County currently operate. The Washington State Department of Transportation purchased the Palouse River and Coulee City Railroad in Whitman County, in order to maintain this as a viable short line in the region. This is the longest short-line freight rail system in the state and spans four counties. Many other rail lines have been abandoned over time, as shown in figure 3. Overall, 251 miles (47%) of the existing rail lines in the region are currently active. The Palouse River Coulee City line accounts for 64% (160.5 miles) of the active rail line.

The PCC South Subdivision (a short line operator) serves Dayton in Columbia County. The 39 miles of track between Walla Walla and Dayton is owned by the Port of Columbia, which subleases it to the PCC South Subdivision. The maximum attainable speed on this track is 10 to 15 miles per hour, which is typical of most rural railroad tracks in the region. The two major shippers are Northwest Grain Growers and the Seneca Company.

A major positive attribute of rail lines in the Palouse region has been the "Grain Train". This program started in Washington State in 1994 in Walla Walla County to help farmers get their grain to market. Local port districts worked with the State of Washington and the federal government to purchase grain hopper cars which are now locally owned. The program was expanded to Moses Lake in 2000, and in 2003, a third train operated by the Port of Whitman was purchased making a total of 94 cars that are financially self-sustaining. These Grain Trains help to prevent damage to highways by reducing the number of heavy trucks carrying grain to deep-water ports for more than 2,500 cooperative members/farmers.

Airports

There are 139 public-use airports in the State of Washington, with seven of them serving the Palouse region as shown in Figure 3. Six of these airports are for general aviation only, which allows for personal and business travel, air ambulance access, agricultural spraying, recreational flying, and other uses. Scheduled commercial air service is provided at the Pullman-Moscow Regional Airport. The Lewiston-Nez Perce County Airport located just east of Asotin County in Idaho, also serves the region.

The current investments being planned for the region can be found on table 16, where the FAA and state approved Capital improvement plans for the airports are illustrated. Three of these airports are on the FAA's National Plan of Integrated Airport Systems (NPIAS). The NPIAS identifies more than 3,300 airports that are significant to national air transportation and thus eligible to receive federal grants under the Airport Improvement Program (AIP). The three airports are Pullman-Moscow Regional Airport, Port of Whitman Business Air Center, and Rosalia Municipal Airport. The remaining non-

NPIAS airports are not eligible to receive federal grants and must fund planning and improvement projects locally.

Funding assistance can also be obtained from the state, when available, through the Washington State Department of Transportation's Local Airport Aid Grant Program.

A summary of basic airport information is shown below.

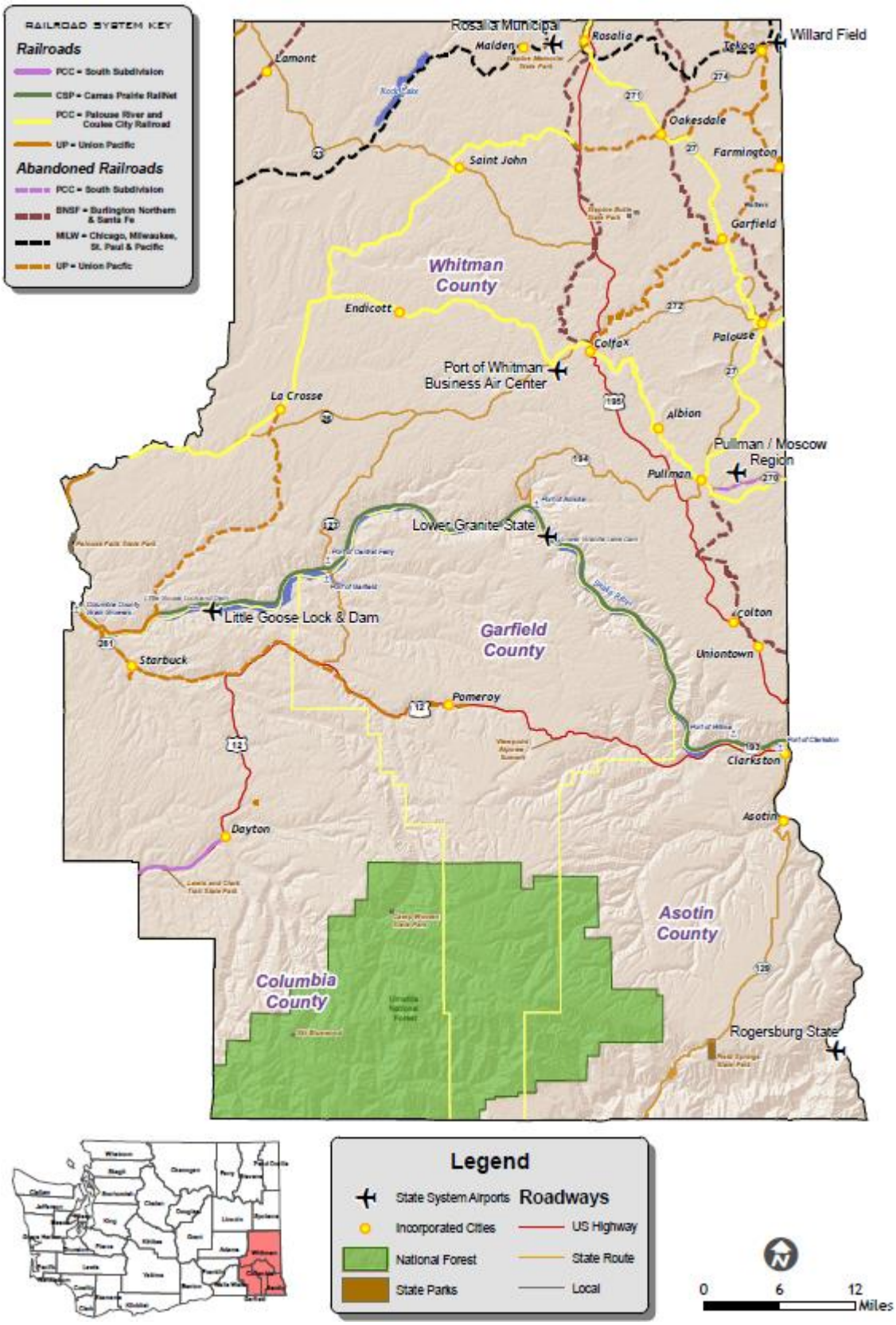
The **Lewiston-Nez Perce County Airport** provides the majority of passenger air service for residents of Asotin County. This airport has several flights a day that connect into the Pullman-Moscow Regional Airport and allows people in the region to access these commuter flights into Boise and Seattle.

Rogersburg State Airport is a relatively lightly used airstrip situated along the Snake River in the southern portion of Asotin County with a turf airstrip of 1,471' in length and 50' wide.

Little Goose State Airport is the only airport in Columbia County; it has a 3,400' x 50' bituminous gravel surface. Public air service is provided by the airports in Walla Walla, Lewiston and the Tri-Cities.

Garfield County has no public airports but is served by the Lewiston-Nez Perce County Airport.

Figure 3: Palouse RTPO State system, Airports, and Regional Railroads



Five public airports exist in Whitman County.

Pullman-Moscow Regional Airport provides passenger air service by Horizon Air with 5 daily arrival and departures to/from Seattle and Lewiston/Boise. It serviced approximately 61,140 annual passengers in 2016. The existing runway is 6,730' x 100'. There were over 29,200 annual aircraft operations (take-offs/landings in 2014) including 4,380 air carrier and air taxi flights.

Pullman- Moscow Airport also has one of the major runway realignment project in the state, with more than $119 Million is scheduled to be invested for the ongoing construction work. The project will add an improved runway for the region, that can allow larger planes such as Boeing 737 jet planes to land in the region, and ultimately enhance regional connectivity with other regions, larger airports and farther destinations.

Port of Whitman Business Air Center near Colfax has approximately 11,020 annual operations on its 3,209' x 60' asphalt runway**.**

Rosalia Municipal Airport has approximately 7,000 annual operations on its 2,800' x 40' asphalt runway.

Willard Field has approximately 7,800 annual operations on its 1,830' x 40' asphalt runway.

Lower Granite State Airport has only 300 annual operations on it's 3,400' x 50' gravel runway.

There are numerous smaller private landing strips in the area, most of which are only capable of handling light aircraft. These smaller airstrips play an important role in agriculture-related operations such as crop dusting, and access to remote recreational areas.

Some of the airports in the Palouse region have performed recent master plan airport layout plan (ALP) updates. These documents serve as an official inventory of existing airport facilities and provide planning guidance for future airport development. An ALP is required for an airport to receive FAA grant assistance. The total annual airport operations are shown in Table 12. Airport operations consist of the number of take-offs and landings at an airport. The definition of one operation is either a take-off or landing. Operations are grouped into two types of operations: local and itinerant.

- Local operations performed by aircraft that operate in the local traffic pattern or within sight of the airport; are known to be departing for, or arriving from a flight in local practice areas located within a 20-mile radius of the airport. or execute simulated instrument approaches or low passes at the airport.
- Itinerant operations mean all aircraft operations other than local operations.

Table 12. Airport Operations Summary

Airport	Year Data Recorded	Annual Operations	Operations Breakdown (see Note 1)					
			Military (%)	Air Taxi (%)	Commercial- (%)	Local General Aviation (%)	Transient General Aviation (%)	Total General Aviation (%)
Lewiston-Nez Perce	2016	28,835	1	12	6	32	49	81
Little Goose	2015	300					100	100
Lower Granite	2015	300					100	100
Pullman-Moscow Regional	2014	29,200	<1%	15	8	41	44	85
Rogersburg	2015	100					100	100
Rosalia Municipal	2015	7,665				58	42	100
Port of Whitman Business Air Center	2010	14,965				73	27	100
Willard Field	2015	9,490				76	24	100

Resource: airnav.com

Non-Motorized Modes

Separate off-road facilities for pedestrian and bicycle use are sparse throughout the region. There are sidewalks provided in many of the communities and efforts to increase the quality and quantity of sidewalks have been made in recent years; particularly with the Surface Transportation Program-Transportation Alternative Projects (TAP) federal funds (now STBG-SA, Surface

transportation block grant- set aside funds, after FAST act), made available by the Palouse RTPO. Please see the appendix K, for a list of Palouse RTPO funded projects for the past five years.

The City of Pullman has a substantial amount of foot and bicycle traffic due to the university population. Population densities are high within Pullman due to the associated services that accompany an urban condition, especially with WSU. The City of Pullman has a system of sidewalks and bike paths that serve these needs. Two off-road pathways currently exist that connect cities within the region. One follows SR-270 on the south side from Pullman to the City of Moscow, Idaho, which is home to the University of Idaho. A second is a pathway that connects the City of Asotin to Clarkston and a levy trail system that has links to Lewiston, Idaho.

Given the relatively light traffic volumes on many of the roadways in the region, bicycle travel is considered a relatively safe activity. The City of Palouse assists with an annual bicycle race called the Tour de Lentils, which covers 65 miles and takes cyclists on a beautiful, tour of the Palouse. The event begins in Pullman, and continues on Wawawai-Pullman Road, through Colfax to Palouse, past Kamiak Butte, and back to Pullman. The Washington State Department of Transportation also produces a State Bicycle Map that indicates the average daily traffic on all state highways and also shows which state highways have shoulders less than two feet in width. Bicyclists wishing to travel in the area are encouraged to consult this state map. The City of Walla Walla has also produced a "Walla Walla Valley Bike Map" that includes routes in Columbia County.

Region wide Public Transportation Services

The Palouse RTPO region is served by five publicly funded public transportation agencies. A brief description of their services is outlined below. The region is served by many private transits, such as Wheatland Express, a private provider that runs weekdays between Pullman, Moscow, Seattle and many other places. Service is also provided to the Spokane International Airport seven days a week.

Detailed information on public transportation systems within the region can be found in the Human Services Public Transportation Coordination Plan. This is a federally mandated plan that is written every four years with an update to the latest needs every two years. All current and previous plans can be obtained from the Palouse RTPO office and website.

Asotin County Public Transportation Benefit Area (PTBA)

Asotin County PTBA provides fixed route service as well as demand response service (Dial-A-Ride), in the Lewiston-Clarkston metropolitan area. Asotin County PTBA operates (6) ½ hour routes in the city of Clarkston, Washington and Asotin, Washington 37 times a day and once an hour into Lewiston, Idaho, Monday through Friday, 6:00 a.m. to 7:00 p.m. Saturday service operates from 9:00 a.m. to 3:00 p.m. In 2015 we provided 64,687 fixed route passenger trips and 7,954 demand response ADA trips. We also provide a twelve vehicle vanpool program which provided 28,968 passenger trips in 2015.

Coast Transportation

Coast Transportation, the transportation program of the Council on Aging and Human Services, based in Colfax, Washington provides demand response, ADA-accessible, public transportation throughout the rural areas of Whitman, Asotin, and Garfield counties. Using both agency drivers in 14 ADA-accessible vans and mini-buses, and community volunteer drivers using their own vehicles, Coast provides fare-free service to those with a “special need” for transportation, whether it be due to the lack of a vehicle, license, or ability to drive. Coast provides service to Whitman County residents, including Pullman residents who need access to services outside the city limits, and residents in Asotin and Garfield counties who need to access services outside of the service boundaries of Asotin and Garfield transit systems. Coast’s office is open from 8:00 a.m. to 4:30 p.m., with service provided from 7:00 a.m. to 5:30 p.m., Monday through Friday.

Columbia County Public Transportation (CCPT)

Columbia County Public Transportation (CCPT) serves all of Columbia County as well as residents in Waitsburg and Dixie located in neighboring Walla Walla County. The system has several buses that operate Monday through Friday 7:00 a.m. to 5:00 p.m. on a demand response basis during the school year and 8:00 a.m.-5:00 p.m. during the summer. Passengers can make connections with Valley Transit, Grapeline, and the Walla Walla Regional Airport all located in Walla Walla. In making connections with Grapeline, passengers travel to Pasco, WA where they can connect with Ben Franklin Transit, Greyhound, and Amtrak. CCPT also makes connections with Garfield

Transportation so that passengers can travel to Pomeroy, WA or the Lewiston, Idaho/Clarkston, WA Valley. CCPT provided 46,600 passenger trips in 2015. CCPT offers vanpool services, which operate independently from the regular service and provided 20,425 vanpool passenger trips in 2015.

Garfield County Transportation Authority (GCTA)

Garfield County Transportation (GCTA) operates one commuter route Monday through Friday leaving Pomeroy, Washington at 6:50 a.m. and returning to Pomeroy, Washington at approximately 5:00 p.m. GCT also operates a deviated route from Pomeroy, Washington on Tuesday and Thursday leaving at 9:30 a.m. and returning at 2:00 p.m. GCT also has a demand response accessible service Monday through Friday, 8:30 a.m. to 4:00 p.m.

Pullman Transit

The City of Pullman's Transit system consists of twelve 35' coaches, ten 40' coaches, and five paratransit vehicles. During Community Plus service, with Washington State University in session, the system operates seven fixed routes with eleven buses; when local public schools are in session, six morning and afternoon Pullman Transit school bus routes complement the district's yellow bus service. Two routes operate during Community Plus evenings, as well as Saturdays and Sundays year-round. Four paratransit vans and one MV-1 with a side ramp provide on-demand service for the elderly and disabled. During periods of reduced service and summertime, Community service is provided on four-weekday routes, and two on weekends. Approximately 1,350,000 passengers rode the fixed route system in 2017, and just over 20,000 used the paratransit service. Intercity bus service is also available with a nationwide network of connections including Northwest Trail ways links to the nearby communities of Spokane, WA and Moscow and Lewiston, ID. Starline Luxury Coaches (formerly Wheatland Express) operates a local charter service, and several local taxi cab companies and an emerging Uber service offer individual options.

Electric and Autonomous Vehicles

The Palouse RTPO supports the importance of a changing transportation industry, and have been actively working towards participating in an ongoing nationwide transition of electric and autonomous vehicles in private and commercial industries.

The Palouse Region has been fortunate enough to participate in Avista's electric vehicle supply equipment (EVES) charging station installation program. These allow electric car owners, both locally and statewide, to drive their cars knowing there will be local, and regional charging stations to charge their vehicle. The region, working with Avista, WSU, the City of Pullman and many other agencies, has been able to install six different charging stations in four counties. Including two that are level three chargers. Level three chargers are the fastest chargers available in the market today. One of the level three chargers is already installed and being operated in Rosalia, WA, while other charging stations are being planned in the City of Pullman.

Palouse RTPO held a regional meeting to identify various implications of alternative fuels, such as electric cars, biofuels, as well as autonomous cars. During the meeting, a varied discussion of electric car-road usage fees, truck movement to improve timely delivery of the goods, and autonomous vehicles adding an improvement in unsafe driving habits, were a few of the subjects discussed.

The group also discussed various new technologies that will change driving behavior, such as cars that identify nearby vehicles with constant signals that will help avoid crashes and fatalities on highways in the future. Avista's EVSE charging station pilot program plans to install 7 level three chargers, 70 workstation level two chargers, and more than 100 personal level two chargers around the region.

Level of Service Standards

The level of service (LOS) standards establishes a gauge for evaluating the relative performance of existing systems and planning for future systems to meet current and future needs. The level of service is defined in the Highway Capacity Manual as a qualitative measure describing operational conditions within the traffic stream or the transit system, and the perception of motorists and/or passengers. A LOC generally describes the conditions in terms of speed and travel times, freedom to maneuver, traffic interruptions, comfort and convenience, and safety.Consistent with state level of service standards, the PRTPO establishes LOC "C" as the standard for all rural facilities and LOS "D" for all urban facilities included in the regional roadway network.

Cities and counties throughout the region also use national standards published by the American Association of State Highway and Transportation Officials as well as the local agency guidelines established by the Washington State Department of Transportation. These standards cover a wide variety of construction and operational standards.

Most of the roadways in the region operate at acceptable levels of service. Portions of US 12 in the City of Clarkston experience peak hour congestion during short periods of time. Of particular note is the congestion that occurs at Fleshman Way/SR 129 interchange in Asotin County. With daily traffic volumes of over 25,000 vehicles on the Southway Bridge, which provides access to the City of Lewiston and the regional airport there, this area is heavily congested. Asotin County is also unique within the region in that it experiences urban congestion in developed portions of the county outside of the City of Clarkston.

In the City of Pullman, congestion occurs on SR 27 and SR 270. Stadium Way is also burdened with congestion primarily during the morning and evening peak hours. There is also special event-related congestion associated with Washington State University athletic events. This type of congestion is most prevalent in Pullman on the state highway system and many local roadways. Congestion can also occur on US 195 north through Whitman County, but especially as far as Colfax where traffic divides to head west on SR 26 as well. SR 27 also experiences congestion before and after football games as it serves as an alternate route to Spokane for US 195.

Section VII: Region's Key Issues

The region has its own unique need for the movement of freight and people for economic reasons, and medical, recreational, and other social needs. The region has enjoyed a fairly balanced multimodal system which consists of rail, barge, truck, transit, and paratransit. The aviation mode is available to the region through the airport facilities in Pullman, Lewiston, the Tri-Cities, and Walla Walla.

There are several internal and external factors that affect the ability of the multimodal system to serve the economic and social needs of the region. The economic viability of the Snake River as a transportation system is being challenged and railroads are continuing their abandonment of rail lines. Both of these systems are critical in moving freight through the region and in maintaining competitive markets.

The trucking industry is much more efficient now than it has been in the last three decades, but the road infrastructure is not adequate in many areas to support the increased axle weights and year-round use of the roads. Also, the geometrics of some roadways do not provide the appropriate widths for trucks to efficiently operate.

Outlined below is a discussion of the key transportation issues with respect to providing a multi-modal transportation system to serve the Palouse region. Many of these issues can be categorized into the statewide issues as well as multiple statewide issues.

Maintenance and Preservation

Over the next 20 years, maintenance of existing roadways and bridges will be vital to the region. These roadways connect communities throughout the region and to the rest of the state and provide important means to carry agricultural products from fields to highways, rail service, as well as inland water ports. As important as rail and barge transport modes are to the region for providing competition between freight hauling modes, without well- maintained roadways, access to these other modes would not exist.

The number of roadway miles was well documented in earlier charts. Several roadways will need reconstruction work and many bridges will need to be replaced. Replacement of bridges fills an important role in maintaining the viability of roadways that provide important connections to major highways and other routes that connect fields to grain storage and freight hauling facilities. Funding for maintenance of roadways and bridges will far exceed all other expenditures for transportation facilities in the region in order to ensure that the transportation system is effective.

The timing of maintenance and preservation investments is important to achieve the lowest life-cycle costs. This issue and the cost to preserve the city and county roadway infrastructure, which makes up nearly 80% of the roadway mileage in the region, is discussed in more detail in a subsequent chapter.

Roads

Several types of road surfaces exist with each providing unique functional benefits and costs. Cities and counties must maintain all of their roadways, not just those that are part of the Freight and Goods Transportation System or those that are functionally classified. The traveling public demands maintenance of all roads. Rising construction material costs have required increasingly strategic approaches to selecting the most cost effective surface type. A new line of thinking that is becoming common practice is to apply the most cost-effective surface treatment at the time of resurfacing.

As can be seen in Table 4, nearly 70% of the roadways in the Palouse region are gravel or unpaved. Among these roadways, more than 15% are considered arterial roadways. Most of these gravel and unpaved roads do not meet current design standards and are considered deficient roadways due to the surface type and/or width. The need to improve these roadways, especially the unpaved arterials, is considered a high priority. This issue will be discussed in more detail in a later chapter.

Bridges

Aging bridges represent a growing problem that must be monitored closely. Most bridges have served transportation needs far longer than builders anticipated. As discussed earlier in the Regional Transportation System chapter, there are over 70 bridges that are deficient in the region, representing nearly 20%.

Small Structures

Maintenance and preservation of small structures are also an issue. Bridge structures larger than 20 feet in length are eligible for Federal-aid, however, those structures less than 20 feet do not have a dedicated funding source and must be maintained. As identified on a statewide basis in the WTP, recent culvert failures highlight the need for an inventory and condition survey to help determine the level of future investment necessary to prevent roadways from collapsing. There are 270 small structures in the Palouse region. The number of small structures is declining somewhat due to the fact that not all of them can be regularly maintained and some are growing old and becoming safety hazards. In some instances, local agencies have made the difficult decision to close some smaller bridge structures, forcing travelers to make a longer trip on other roadways. Replacement of small structures is currently fully financed with local funds; which burden significantly affects the ability to maintain a chip seal program on county roads. A dedicated funding source to maintain/replace small structures is desperately needed as a high priority.

Safety

Another important aspect of the transportation system is making improvements in areas where geometry deficiencies may exist, to increase travel comfort and time. Because of the topography of the region, many of the roadways have frequent horizontal and vertical alignment changes as they wind around hills, and follow rivers and streams through the valleys. Initial construction of many of these roadways was achieved without many cuts and fills to straighten alignments and improve sight distances. Travel lanes are often narrow and shoulders are sometimes non-existent, very narrow, or in disrepair. Several intersections in the region have poor sight distances and adverse approach angles making it difficult for trucks to turn onto main highways, safely.

Some guardrails exist and fulfill an important role when steep slopes are adjacent to the roadway. Installation of guardrails keep vehicles from leaving the roadway as evidenced in the pictures below.

Discussions with engineers revealed that installation of guardrails does increase maintenance expenses that are already stretched to meet existing demands.

The issue of safety is considered a high priority for both the Palouse region and the Washington State Department of Transportation. Traffic safety is both a local, regional and statewide issue, which requires the collaboration of law enforcement and transportation agencies at each level. As identified in the WTP 2035, Phase I: "Significant emphasis is placed on roadway design at all jurisdictional levels, statewide, resulting in projects that improves transportation infrastructures and reduces fatalities. Emphasis is also placed on improving regulation, increasing interagency collaboration, and promoting ongoing research aimed at finding ways to make our transportation system safer." Washington's Target Zero initiative to achieve zero fatal death and serious injuries by 2030 is one of the example, additionally, practical solutions and corridor sketch initiative are other examples that are being looked at to improve Transportation systems throughout the state. Safety issues are discussed in more detail in a subsequent chapter of the RTP as well. This also aligns with WSDOT's Practical Solution Initiative. Table 13 shows the number of accidents that have occurred in the Palouse region from 2014-2016.

Table 13. Accident Summary

Counties	2014		2015		2016		Total	
	Collision	Fatality	Collision	Fatality	Collision	Fatality	Collision	Fatality
Asotin								
Combined Cities	59	0	65	0	61	0	185	0
County Roads	60	0	58	1	64	0	182	1
State Roads	76	0	98	0	104	1	278	1
Miscellaneous Traffic Ways	0	0	0	0	2	1	2	1
Total	**195**	**-**	**224**	**1**	**231**	**2**	**650**	**-**
Columbia								
Combined Cities	6	0	6	0	10	0	22	0
County Roads	22	0	21	0	26	0	69	0
State Roads	45	0	53	1	34	0	132	1
Miscellaneous Traffic Ways	4	0	1	0	6	0	11	0
Total	**77**	**-**	**81**	**1**	**76**	**-**	**234**	
Garfield								
Combined Cities	0	0	6	0	5	0	11	0
County Roads	15	1	9	0	12	0	36	1
State Roads	41	1	35	0	19	0	95	1
Miscellaneous Traffic Ways	0	0	0	0	0	0	0	0
Total	**56**	**2**	**50**	**-**	**36**	**-**	**142**	
Whitman								
Combined Cities	221	0	216	1	193	0	630	1
County Roads	75	0	77	2	80	1	232	3
State Roads	369	3	362	2	324	4	1055	9
Miscellaneous Traffic Ways	4	0	3	0	7	0	14	0
Total	**669**	**3**	**658**	**5**	**604**	**5**	**1931**	**13**

Note: Whitman County combined city accidents also include misc. traffic way accidents located in Pullman

High-Risk Corridors

Due to the topography of the region and the age of some of the roadways, some segments or corridors have narrow travel lanes and shoulders, poor sight distance and alignments. Among these roadway segments and corridors, the following aspects should be considered when making improvements to such roadways.

Roadway projects may focus on the following types of improvements:

- Reducing head-on and across-median crashes, improving design and operation of highway intersection, and recurring congestion related crashes

- Reducing bicycle and pedestrian crashes
- Reducing speed limits to fit changing uses, and conditions impacting the roadway.
- Roadside factors are also considered in roadway design. An ideal highway has roadsides and median areas that are flat and unobstructed by hazards. Hazards such as side slopes, fixed objects, and water, present varying degrees of danger to the vehicle and its occupants.

Several intersections in the region have poor sight distances and adverse approach angles making it difficult for trucks to turn onto main highways. Due to the increasing amount of truck traffic on these roadways, this issue will continue to be a concern to the region.

Access Management

The Washington State Department of Transportation controls access to all Washington State Highways in order to preserve the safety and efficiency of these highways as well as to preserve the public investment. The WTP explains the benefits of access management. As connections to state routes increase, the collision rate also rises. By actively regulating, consolidating, relocating and eliminating connections, roadway safety increases. Access management enhances economic vitality, the movement of freight and goods, and the movement of people. Access management is a tool being used nationwide to preserve the capacity, functionality, and investment as well as improve the safety of roadways.

Access management does pose some challenges for local jurisdictions in providing access to areas zoned for development near state highways. In many instances, frontage roads along state highways where access rights have been purchased would facilitate traffic operations and safety in areas zoned for development. Consolidation of accesses or a frontage road would be particularly helpful in the area west of Dayton where new access to US 12 also requires a new railroad crossing. Some jurisdictions are experiencing higher traffic volumes on local roadways as a result of not having access to state facilities. Challenges in retrofitting county and city roadways where access is not provided and no frontage roads were put in place is also an issue.

Freight and Goods Transportation System

The movement of freight and goods is a vital component to the economy of the region and state. The WTP recorded that freight volumes are rising twice as fast as Washington State's overall population and traffic growth. As an agricultural-based region, the freight and goods transportation system is used to transport produce from farms to markets via roadways, rail, and ports.

The need to upgrade the freight and goods transportation system roads to all weather road standards continues to increase as the market demand for on-time delivery of goods increases. An existing chokepoint in the region's transportation system is the yearly closure of much of the regions county road systems. Seasonal "load limits" or "closures" are commonly applied to the system around the second or third week in January, and last until the end of March or longer. The load limits effectively shut down the truck traffic to any load greater than an empty semi-truck or tractor-trailer arrangement without the application of load limits on the roads, they would be irreparably damaged during winter.

Road closures represent a major impediment to the transport of agricultural products to the river barge system or to destinations out of the area. Although much of the area has widespread "home storage" or local grain storage facilities, this represents a major negative impact on the local economy. The problem also extends beyond the agricultural market, to local industries. Supplies and shipment of finished goods are limited by the inadequate roadway system.

One of the major goals of the transportation planners and engineers in the region is to secure increased needed funding for reconstruction of a number of specific county routes of regional significance. These roads need to be reconstructed as "all-weather" roads for farming needs. If this goal can be realized, the local shipping of grains and other products would positively impact the local economy.

In addition to securing increased funding, the table 14 below identifies various freight flow and safety improvement projects needed within the Palouse region to improve freight transportation efficiency:

Table 14. Identified Freight Flow and Safety Improvement Projects

Project Description	Cities, Counties or Ports Impacted
"Blue Bridge" efficacy and interchange study	City of Clarkston, Asotin County, Port of Clarkston
Clarkston signal synchronization evaluation	City of Clarkston, Asotin County, Port of Clarkston
Detailed Pullman truck flow analysis (Terre View Dr and Grand Ave/Paradise St emphasis)	City of Pullman, Whitman County, Port of Whitman
US 195 and SR 26 intersection realignment	City of Colfax, Whitman County
US 195 and SR 272 intersection evaluation for safety and efficacy	City of Colfax, Whitman County
US 195 and South Main St Intersection traffic flow evaluation	City of Colfax, Whitman County
SR 272 Mill St to Hauser Heights Roadway Improvement Project	City of Colfax, Whitman County
WIM Railroad Benefit-Cost Analysis	WSDOT, City of Palouse, Whitman County
P&L Railroad Bridge replacement and rehabilitation	WSDOT, Whitman County
P&L/WIM track rehabilitation	WSDOT Whitman County
Palouse intermodal connectivity assessment (accessibility of rail loading facility)	City of Palouse
Palouse Bridge Street assessment for large truck/farm implement capability	City of Palouse
Port of Columbia Railroad Benefit-Cost Analysis	Port of Columbia, City of Dayton, Columbia County
US-12 (Emphasis in Dayton and Waitsburg) oversize/over-length load compatibility study	City of Dayton, City of Waitsburg, Columbia County
Highway Bridge Replacement/Rehabilitation Program (with coordinated county prioritization) Whitman - 56 Bridges; Asotin 2 Bridges; Columbia 10 Bridges; Garfield 6 Bridges	All Counties
Seasonal road closure reduction program (increasing Inventory of all-weather roads)	All Counties
Almota Grade (SR 194) structural and safety improvement	Whitman County, Port of Whitman

Resource: Palouse Regional Freight Study 2016

Substandard / Older Roadways

Many roadways within the region are currently sub-standard or older to current design standards for the region. The need to improve these roadways is constantly increasing as the need for freight and agricultural product operation in the region increases. Farm equipment has also increased in size, making it very challenging to move tractors and harvest equipment from field to field. Damage

to roadside signage and bridge structures has resulted from oversized farm equipment traveling on the roads. Large trucks are also bringing windmills to the region, providing needed economic growth and diversification. Several roadways and intersections need improvements to better accommodate these large rigs.

Many of the roadways within the region were built at a time when standards were lower and have not been improved or upgraded to current roadway standards, since their initial construction. Due to the rural nature of the region and the agricultural background, these roadways were typically designed for a lower volume of traffic. Many of the roads are gravel roads with narrow travel lanes and have no shoulders, which can decrease driver comfort with increased users. They are discussed in more detail in a later chapter.

Funding

Funding for transportation improvement is a huge issue throughout the region, state, and nation. As mentioned in the maintenance section above, the timing of improvement is important to achieve the lowest life-cycle costs for maintenance. If maintenance activity is deferred, then what could have been a relatively low-cost activity, becomes a much higher cost preservation need. In some cases, there is a need for reconstruction.

Although there have been increases in the Washington State gas tax in recent years, the additional funding from the gas tax increases have been directly associated with specific large projects on state highways and only a small percentage of the increase has reached cities and counties for roadway maintenance, preservation, and construction efforts. In fact, more fuel-efficient cars, electric cars, and people driving less have led to revenue from the motor fuel tax not keeping up with inflation.

Local Funds

A recurring theme throughout the region's cities was that there is no dedicated funding source for roadway maintenance and preservation similar to the County Arterial Roadway Preservation Program (CAPP) administered by the County Road Administration Board (CRAB). The Transportation Improvement Board (TIB) does have a program to assist small cities, and many in the region have benefited from this program, but it operates on a competitive basis. Funding from the TIB has been significantly reduced in recent years.

Cities usually cannot treat roads as a utility and collect fees for usage. A new local option was proposed to the state legislature by the Association of Washington Cities that would allow cities to treat streets as a utility and establish rates based on the type of user. The proposal did not pass the state legislature. Cities are not forced to use gas tax distributions on roadway maintenance and preservation, thus roadway improvements must compete locally for general funds that cover many other needs, such as law enforcement, schools, human services, parks, etc. As a result, maintenance activities often are postponed because other more visible city projects are given priority. Another big issue with the smaller towns in the region is the fact that they do not have a large retail base. Much of their shopping is done in the larger regional marketplaces. As such, their town budgets are small and elected officials must make very difficult decisions in providing services for their communities.

Federal Funds

Another common funding issue is that federal funding sources that help city and county projects are increasingly difficult to obtain and use for a number of reasons:

- Reductions in some programs, especially the Surface Transportation Program.
- Some programs, such as Bridge Replacement and Safety, call for and select projects infrequently. Projects may be programmed for much of the entire life of federal legislation nearly to the amount of the authorized limitations.
- Statewide competitiveness often makes it more difficult for rural types of jobs to score well against roadways in urban areas that carry more vehicles. This does not diminish the fact that rural roadways serve a vital role in the state economy by carrying agricultural products to the worldwide market.
- Continually increasing administrative requirements make federal funds very difficult and costly to use.

Section VIII: Region Wide Infrastructures and Modes of Transportations

This section talks about various different modes of transportation that region maintains. Various planning effort goes into maintaining such infrastructure, this section provides currently planned and scheduled improvement needs for each of the mode.

Railroads Improvements

In the 1950s, Washington had approximately 5,000 miles of railroads. Today that number is down to around 3,100. Over time, the larger carriers have paired their systems of lines with low traffic densities to reduce their costs. Once spun off by the larger railroads, the lines are run by public or private entities.

The railroads of the four county region of southeast Washington are comprised nearly entirely of short line railroads that connect to the main lines to the north and west. Short line railroads largely emerged out of the 1980 Staggers Rail Act, during a period of significant deregulation in the transportation industry. The Staggers Act deregulated the railroad industry and allowed Class I railroads to adopt cost reduction strategies through the sale or lease of no- or low-profit, low-density rail lines. During the following decade, this action led to the creation of 227 short line railroads nationwide, and an additional 229 through the 1990s. Despite having been of low value to the Class I railroads, these lines nonetheless serve valuable functions for the industries of the communities in which they are found. Subsequently, many of the lines were leased, purchased, or otherwise obtained by various private or public entities. Short line railroads are located throughout the state and connect a variety of regional production to the mainline rail network. More than half of the state's rail system has traffic with densities less than five million gross ton-miles per mile. These lines are known as short-line or branch railroads. Short line railroads often find themselves in lack of maintenance services as they often do not generate enough revenue for appropriate track maintenance. Accumulated deferral of these expenditures leads to a gradual deterioration of the track, ties, and base. These lead, in turn, to reduced train speeds and inefficient operations. As costs of operations escalate, service deteriorates, shippers convert to

other modes, deferred maintenance costs rise to a staggering total, and the line ends up in trouble, possibly abandoned.

These lines are important because they handle local traffic that, if not moved by the railroads, would either move by truck over state and local roads, or would cease to move. When the latter happens, it can cause businesses to close or relocate. These lines also provide a relatively inexpensive option for moving goods. In addition, when lines are lost, they often have a negative impact on an area's ability to attract new businesses and industry. (Source: WSDOT Rail plan 2013)

There are many benefits to providing rail service to agricultural producing areas of the State of Washington, especially the Palouse region. Many of these are documented in the Grain Train Experience, and summarized below:

- Rail reduces the number of trucks on the roadway system which helps reduce possible congestions, and also helps with fuel consumption and air quality of the region.
- Transporting heavy products by rail reduces highway repair and maintenance costs.
- Short line railroads move local traffic that might cease to move or cause businesses to relocate.

The third major short line rail road within the region is significant sections of the state owned Palouse River and Coulee City (PCC) Railroad found primarily in Whitman County and connected to the Union Pacific to the west, and the BNSF to the north. Within the region, the PCC lines includes the P&L line (Potlatch and Lewiston), the PV Hooper Line, and the WIM line (Washington

Idaho Montana), in addition to several miles that are not currently in service between Colfax and Pullman, Pullman to Moscow, and north of Pullman towards Palouse. Both the P&L line and the WIM line are operated by the Washington Idaho Railway (WIR). In May of 2015, WSDOT released their 2015-2025 PCC strategic plan, in which they identify nearly $60 million in capital needs for the entirety of the PCC system, much of which accrues within Whitman County (Table 15). Within the Palouse RTPO region, nearly $35 million of capital needs were identified.

Table 15 System Capital needs for PRTPO Region PCC lines

286k lb. Capacity Projects	Description		Cost
P&L Marshall to McCoy	Replace 11 bridges and repair 4 Bridges		$ 5,988,000.00
Track Rehabilitation in Curves	**Total Track Miles Rehabilitated**	**Rail Miles Replaced (incl. in total miles)**	**Cost**
P&L/WIM	20.2	5.2	$ 9,020,000.00
Hooper	9.3	6.7	$ 7,260,000.00
PV	10.8	6.6	$ 7,520,000.00
Total	40.3	18.5	$ 23,800,000.00
Replace Defective Rail			**Cost**
System wide Allowance	Estimated initial defective rail replacement		$ 5,000,000.00
Total (in 2015 dollars)	**Total capital Project Need**		**$ 34,788,000.00**

(Resource: Palouse Regional Freight Study 2016)

WA state short line Rail Inventory and needs assessment study completed in 2015 suggested that the economic viability of the rail operator is directly tied to the condition of the line. Railroad tracks should be upgraded in order to recapture the viability for railroads as an option for moving freight. As rail travel times diminish due to poor track condition and resulting slower operating speeds, rail costs go up and become uncompetitive. Retaining rail as an option helps to provide competition among freight hauling modes.

If the Snake River dams are breached, due to the ongoing issue of salmon and the Endangered Species Act, or if the river is not continuously dredged, the importance of moving freight by rail will increase.

Maintaining the viability of short-line railroads, and minimizing the future abandonment of additional railroads, is a very important issue to the Palouse region. Rail transport is more

economical than trucking, and also provides alternative shipping methods to barging, which keeps the transportation system healthy by providing shippers competitive alternatives for the movement of freight. If barging on the Snake River is reduced for any reason, rail transport will become increasingly important to the region. Once rail lines are removed and the right of ways are lost, getting them back is nearly impossible. Rail banking can allow preservation of the right of ways for future rail improvements while allowing other interim use such as non-motorized trail systems.

Rail opportunities must be preserved, especially the Grain Train out of the region. New opportunities to provide rail access, such as the intermodal facility being pursued near Oaksdale, should be promoted to encourage modal competitiveness and diversity, should river transport opportunities be compromised.

Economic and Freight Impact of the Snake River

A major factor that may impact the multimodal system, is the Endangered Species Act that may require the breaching of the four dams or a drawdown of river levels on the lower Snake River, thereby eliminating barge service to the Palouse RTPO region. Because of the act, Sockeye and Chinook salmon have been declared endangered species in the Snake/Columbia River system. The above perspective will cause significantly more truck traffic moving on roads not adequate for such weight and volume, and mixing with automobiles and buses to an extent that has never occurred before. In addition, the contribution that these dams make in the production of electricity for the western United States would be lost by breaching the dams.

Many studies have been performed in recent years by WSDOT, the Eastern Washington Intermodal Transportation Study (EWITS) at Washington State University, the Army Corp of Engineers, and others, regarding a drawdown of the Snake River. Studies have included issues such as the following:

- Potential impact to Sockeye and Chinook salmon migrations, other methods to improve salmon passage at the dams, impact of a river drawdown, on the transportation of grains
- Impact of a river drawdown on energy consumption, and the environmental emissions impact on roadway networks, due to greater trucking needs.

Regardless of the ultimate outcome of the Endangered Species Act on the Snake River, transport on the river has been affected by silting. The flow of silt and debris down the free-flowing portions

of the Snake and Clearwater rivers, above Lewiston, Idaho over several years, has begun to leave its mark. Much of this silt has built up behind Lower Granite Dam and has reduced the depth of the river, thus reducing the depth at which barges can travel, and limiting the amount of cargo that can be taken on board. A cruise ship has even become stuck, in the past. Dredging of the Snake River in recent years has helped improve this situation; however, it has been found that many locations are impacted by silt again within six months of being dredged. Three out of the four port facilities in the Lewiston-Clarkston area are affected by the buildup of silt. Prior to the dredging, many barges left the ports of Lewiston, Clarkston, and Wilma, at half capacity. It is important to the future of barge transport on the Snake River, that continued dredging be considered, in order to maintain the river d e p t h at a minimum of 14', the Army Corp of Engineers recommendation for standard operating pool levels. This will improve the efficiency of barge transport.

Even with the importance of the grain train discussed above, the importance of the Snake River to the region, and the ability to barge significant amounts of grain from the region to national and international markets, is summarized in the facts and comparisons outlined below.

- 1 barge Unit = 37.5 hopper rail cars
- 1 barge Unit = 150 semi-trucks (25 Ton semi-trucks)
- Transport by barge uses less fuel/ton-mile (514) than either rail (202) or truck (59)
- If trucks were used to ship the 156,900 tons of wheat that the first two-grain trains have carried to Columbia River and Puget Sound ports, it would have added 4,482 heavy truckloads to Washington State highways

By comparison, if barge traffic were halted it would take an additional 120,000 rail cars, or more than 700,000 semi-trucks annually, to carry the cargo now being moved by barge on the Columbia-Snake River System. Aging lock gates will require lock maintenance efforts by the Army Corps of Engineers. This maintenance was recently completed on the Lower Monumental Dam, and other dams, on the Columbia-Snake River system. This caused an "extended outage" for 14 weeks, beginning in December 2016. The Columbia-Snake River system is the top export gateway for US wheat. The Pacific Northwest Waterways Association estimates that $1.5 - $2 billion worth of cargo moves on the river system in a typical year, with approximately 20% during the period of the

outage. Grain growers had to decide to sell their grain earlier, and ship before the outage, or they could opt to store it at elevators.

Policy makers and others in the region need to continue to stress the importance of the Snake River system to the economic viability of the region and the multimodal transportation system, to promote competition.

Bicycle/Pedestrian Accommodations

Improved pathway connections for bicycle and pedestrian access, to downtown areas and to rivers, is an important need for future consideration in Asotin County. Of particular concern, is the lack of bicycle/pedestrian connections, or crossings, on US 12 and SR 129, which makes access to the levy trail system difficult. Roadways and developments need to be bicycle friendly.

Dayton is getting more and more tourist traffic. An off-road pathway connecting Dayton and Waitsburg should be considered; which could be constructed in two phases, the first extending from Dayton to Lewis-Clark State Park. In addition, the Walla Walla MPO, in partnership with many stakeholders, is also working on creating a Blue Mountain regional trail system. Such a facility would serve both tourists, as well as provide local residents a safe place to walk and bicycle. The viaduct in Dayton needs improvement to accommodate bicycle/pedestrian movement. The existing architecturally pleasing features should be carefully considered with any improvements.

The City of Walla Walla has prepared a Regional Bicycle Map that identifies bicycle routes. It includes North Touchet Road south of Dayton to the Bluewood Ski Resort. It should be noted that the last 4 miles of this roadway are not well suited to bicycle travel because of narrow lanes and no shoulders (the map indicates that many of the routes have these conditions).

In Whitman County, the trail system through Pullman connecting eastward to Moscow and Troy in Idaho state is extensively used for transportation and recreation. This trail could be extended 19 miles by rail banking the idle rail corridor connecting Pullman to the West to Albion and Colfax resulting in a nearly 50-mile regional trail system. The following planning considerations were instrumental in bicycle pedestrian accommodation designs:

- Increased bicycle and pedestrian options need to be provided
- Additional facilities in towns should be considered
- Highway projects should incorporate bicycle/pedestrian components

Public Transportation Services

Several of the transit issues identified in earlier RTPO discussions have been addressed with some key features, namely: additional dial-a-ride services provided.

- Additional fixed route service in the Lewis-Clark Valley MPO planning area as well as expansion to serve the City of Moscow
- Wheatland Express shuttle service from the Pullman-Moscow region to the Spokane Airport
- Vanpools serving the Tri-Cities and Walla Walla from Columbia County

The new Coordinated Public Transit Human Services Transportation Plan will begin in late 2017-early 2018 to complement this RTP update effort. Early public meetings and discussions with providers of transit services in the region include the needs and solutions summarized below.

Needs

- Region-wide Sustain existing service
- Information sharing/promotion (local & regional)
- Ongoing coordination between transit and human service providers
- Non-Medicaid medical trips (long distance)
- Connections outside of the region, especially into Idaho—Asotin County
- Evening and weekend services
- Education on available services (travel training)—Columbia County
- Transportation to Clarkston, continuing/regular
- Saturday service—Garfield County
- Improved sidewalks at key boarding/drop off locations.
- Service after 2 pm—Garfield County
- Small vehicles to support 1 to 2 people (long distance) trips—Whitman County

- Service to outlying communities
- Sustained senior services outside of WSU proximity

Solutions

- Region-wide regular (bimonthly/ quarterly) coordination meetings— Mobility management (elements of)
- Ride matching (ongoing and single trip)
- One-stop call center for info/trip planning
- Facilitate coordination efforts
- Support information sharing efforts
- Regional retailer sponsorship of transit service
- Identify and seek unique funding options— "Webcasts" of the Agency Council on Coordinated Transportation (ACCT) and other state-level presentations
- Secure transportation enhancement dollars for supportive infrastructure

Airport Improvements

Airports are part of the Washington State multi-modal transportation system and serve as an essential public facility. There are various ways to improve the air transportation services provided in the region.

Commercial Air Service

As discussed earlier, there are two regional airports that serve the eastern portion of the region that are separated by less than an hour drive: Pullman-Moscow Regional Airport in the Palouse RTPO region, and the Lewiston-Nez Perce County Airport in Idaho state. The economy of scale issues with commercial air service was discussed, recognizing that prices are always higher in lower volume markets.

Maintenance and Preservation of Runways

Ongoing maintenance and preservation activities for the regions runways and taxiways is another key issue. WSDOT completed a pavement condition evaluation for all airports statewide. There

are over $125 million of pavement and safety needs anticipated at the region's airports over the next several years.

Compatible Land Uses

The Washington State Legislature has enacted legislation that requires cities and counties to develop regulations to protect airports from the siting of incompatible land uses adjacent to airports. Reasons for incompatibility include public safety, noise concerns, heights of structures, uses that attract wildlife, and obstructions to visibility such as smoke or dust. Incompatible land uses can include residential, commercial, educational, and other land uses that put pressure on airports to relocate. While the Palouse region is predominately a rural, agricultural region, some of the airports are increasingly surrounded by land uses that are not compatible with airports. According to the Washington State Long-Term Air Transportation Study (LATS), only 41% of Washington airports are currently zoned appropriately to limit incompatible land use. Additionally, the LATS indicates that only 40% of Washington airports are protected by height hazard zoning. It is recommended that all airport sponsors include their airport in local zoning and comprehensive plan documents. Those airports currently covered by such documents should review their airport needs and ensure the regulations are adequate.

Airport Layout Plans

Airport Layout Plan documents help to identify airport needs with respect to facility requirements determined by the number and types of planes using the airport and often examine nearby land uses. Those airports that have not developed ALPs should develop plans to identify future needs and potential future nearby incompatible land uses and to be eligible for potential state funding for improvements.

Airport Capital Improvement Program (CIP)

Based on available site information, future airport needs, and requirements, Capital Improvement Programs (CIP) are developed on a yearly basis, in coordination with WSDOT and FAA as needed. Following table shows the current needs for all Palouse airports, from 2017-2022. Table 16 (shown on the following page) depicts an estimate project costs. Particular importance in the region is the addition of a runway realignment project for the Pullman-Moscow Regional Airport, scheduled to spend more than $119 Million, which is one of the largest airport improvement project happening in the WA state at this time. CIP table does not include a project being developed by Whitman

County and the City of Pullman for the Pullman Airport Road as discussed earlier that will significantly improve access, safety, and year round truck access to the Pullman-Moscow Regional Airport.

Stormwater Management

Recent regulatory changes and philosophies, including State Stormwater Management Guidance and EPA Phase II requirements, have placed a much higher emphasis on how cities and counties manage storm water associated with transportation system elements. This increased effort has been applied to both regular maintenance and construction activities. With the changes, have come increased costs in implementing our maintenance and construction programs. However little or no additional transportation funding has been made available to address the situation. This, in turn, has resulted in further dilution of the existing funding. It is essential that additional funding is identified that is directly tied to the transportation system to provide for planning and executing stormwater management activities. These new requirements create the need in many cases for additional public right-of-way.

Future Transportation Studies for Other Improvements

Some issues and recommended improvements on a more localized basis have been identified by other previous studies. Other issues have been identified through the public involvement process. A list of other issues is included below with detailed descriptions included in Appendix F.

Issues identified for future studies

- Improve access to United States Forest Service lands
- Improve access to adjacent states and counties
- Snake River crossings between Asotin County and Nez Perce County, Idaho
- Downtown Dayton Alternate Route Feasibility
- Freight routes and modes to the Snake River- Impact of heavier trucks
- Wawawai road extension to Lower Granite Dam
- SR 230 Connecting Lamont to I-90 Feasibility
- Roadway traversing Snake River Dams Feasibility

Table 16. Airport Capital Improvement Program

Airport	City	Year	Total	FAA	NPE	Discretionary	State	PFC	Local/ Unidentified	Project
Pullman-Moscow Regional	City of Pullman	2017	$ 200,000					$200,000		Capacity Alterations (Baggage Slide/Hold Room)
		2017	$ 400,000						$ 400,000	Terminal Parking Lot expansion
		2017	$ 27,209,404	$25,000,000			$ 2,209,404			Realign Runway
		2017	$ 150,000						$ 150,000	Pavement Maintenance
		2017	$ 26,121,027	$26,000,000			$ 2,297,780			Realign Runway
		2017	$ 150,000					$150,000		Begin planning for new terminal, which will include bond preparation.
		2019	$ 19,957,711	$16,337,144			$ 1,443,814			Realign Runway
		2020	$ 6,530,257	$ 6,000,000			$ 530,257			Apron Construction
		2020	$ 2,320,000	$ 1,534,764			$ 785,236			Construct Terminal Building.
		2021	$ 500,000	$ 459,400			$ 40,600			Phase III - Landside Master Plan Update
		2021	$ 23,330,554	$15,876,864			$10,123,136			Construct Terminal Building
		2022	$ 5,000,000	$ 4,594,000			$ 406,000			Apron Construction/Rehabilitation
		Total	$ 111,868,953							
Rogersburg										
Rosalia Municipal	Town of Rosalia	2017	$ 450,000							Runway Lights, MIRL
		2017	$ 50,000	$ 486,000			$ 27,000		$ 27,000	Rotating Beacon
		2017	$ 40,000							Wind Cone and Segmented Circle
		2018	$ 82,500	$ 141,750	$ 15,750					Access Taxilane
		2018	$ 75,000							Taxilanes for Hangar Development
		2019	$ 25,000	$ 22,500	$ 2,500					Access Road Improvements
		2020	$ 150,000	$ 270,000			$ 7,500		$ 22,500	Crack Seal, Fog Seal and Striping Runway, Taxiway and Apron
		2020	$ 150,000							Environment Assessment
		2021	$ 55,000	$ 49,500	$ 5,500					Land Acquisition
		2022	$ 350,000							Jet A, Fuel facility
		2022	$ 310,000	$ 999,000			$ 27,750		$ 83,250	Extend R/W
		2022	$ 450,000							Contruct RSA and Relocate Squaw Road
		Total	$ 2,187,500							
Port of Whitman Business Air Center	Colfax	2018	$ 70,000		$ 63,000	$ -	$ 3,500	$ -	$ 3,500	Existing Beacon has reached the end of its service life and has been having electronic problems and is currently not operable. The airport's permanent fix is to install a new ground base beacon on a tip down pole to make it serviceable.
		2018	$ 70,000		$ 63,000	$ -	$ 1,750	$ -	$ 5,250	Main Airport Access Road Construction including full pavement section and drainage improvements.
		2019	$ 130,000		$ -	$ -	$ -	$ -	$ 130,000	5000 gallon tank, fueling surface, spill provisions, card reader, etc.
		2019	$ 9,000		$ 8,100	$ -	$ 225	$ -	$ 675	Provide crack fill and slurry seal surface treatment or fog seal as applicable.
		2019	$ 386,000		$ 347,400	$ -	$ 9,650	$ -	$ 28,950	Main Airport Access Road Construction including full pavement section and drainage improvements.
		2019	$ 18,000		$ 16,200	$ -	$ 450	$ -	$ 1,350	Provide crack fill and slurry seal surface treatment or fog seal as applicable.
		2019	$ 13,000		$ 11,700	$ -	$ 325	$ -	$ 975	Provide crack fill and slurry seal surface treatment or fog seal as applicable.
		2020	$ 70,000		$ 63,000	$ -	$ 1,750	$ -	$ 5,250	Provide crack fill and slurry seal surface treatment or fog seal as applicable.
		2020	$ 115,000		$ 103,500	$ -	$ 2,875	$ -	$ 8,625	Provide crack fill and slurry seal surface treatment or fog seal as applicable.
		2020	$ 100,000		$ 90,000	$ -	$ 2,500	$ -	$ 7,500	Provide crack fill and slurry seal surface treatment or fog seal as applicable.
		2021	$ 50,000		$ 45,000	$ -	$ 1,250	$ -	$ 3,750	Install PAPI on both runway ends.
		2022	$ 40,000		$ 36,000	$ -	$ 1,000	$ -	$ 3,000	Installation of an AWOS II.
		2022	$ 154,000		$ 138,600	$ -	$ 3,850	$ -	$ 11,550	Install PAPI on both runway ends.
		Total	$ 1,225,000							
Willard Field										
Total Needs			$ 115,281,453	$97,770,922	$ 1,009,250	$ -	$17,927,602	$350,000	$ 893,125	

Section IX: Pavement Maintenance/Preservation

As described earlier in the region's key issues section, taking care of existing transportation facilities is the most important task for any region. Preserving the investment already made in the regional transportation system is vital. If pavement preservation activities are postponed, a significantly higher cost could accrue. As such, a more detailed analysis of pavement maintenance and pavement preservation efforts of the counties was undertaken. It was challenging because of the constraints of the data available, and the fact that each jurisdiction reports expenditures differently. It has reaffirmed that the charge to maintain and preserve the county roadway network is demanding. Each county faces distinct challenges because the needs are different and the roadway networks are prioritized differently. This section will endeavor to identify the difficult task that public works departments have of providing a serviceable roadway network within a limited budget for those rural county roadways serving diverse needs.

Pavement Management

Those responsible for determining the appropriate allocation of public funds to various programs and projects have a difficult job indeed. With limited funding, they must determine a number of funds to distribute to numerous worthwhile endeavors such as schools, law enforcement, human services, transportation and other public works activities, and other public functions that ensure the health and general welfare of the populace. Data available from the Washington State Auditor's Office indicates that, on average, counties in Washington State spend approximately 17% of their funding on transportation transit and maintenance operations with an additional 7% on transportation capital; approximately 25% goes towards law and justice, while approximately 16% is dedicated to general government and 12% to health and human services.

Likewise, public works departments have similar challenges on a more focused agenda to balance budgets with needs. Data from the WSDOT Road and Street Report indicates that, on average, statewide county transportation expenditures are approximately 36% for maintenance, with 40% of construction activities, 14% on administration, 4% on traffic policing, 2% on debt service and 4% on other activities.

Many different activities compete for the same funding sources. Knowledgeable professionals make the best decisions they can with available information. Sometimes emergencies arise created by natural events that require adjustments to previously planned programs for addressing public works needs and projects.

In order to make the best decisions possible for the maintenance and preservation of a roadway network, it cannot be emphasized enough, of the importance of a Pavement Management System (PMS). A PMS may be very complex with sophisticated computer models or may be done primarily by hand. All four counties currently use a PMS to follow the County Road Administration Board requirements. Pavement and roadway condition data are essential to make the best use of available funds. A PMS empowers the governing agency with a systematic approach to performing budget analysis and deciding what repair strategies are most appropriate for specific roadways, to use available funds efficiently.

A PMS typically entails five steps that are repeated as necessary every two to three years:

- Mapping road network
- Pavement condition inventory
- Identify maintenance and repair needs
- Analyze repair strategies and establish annual funding levels
- Implement annual program

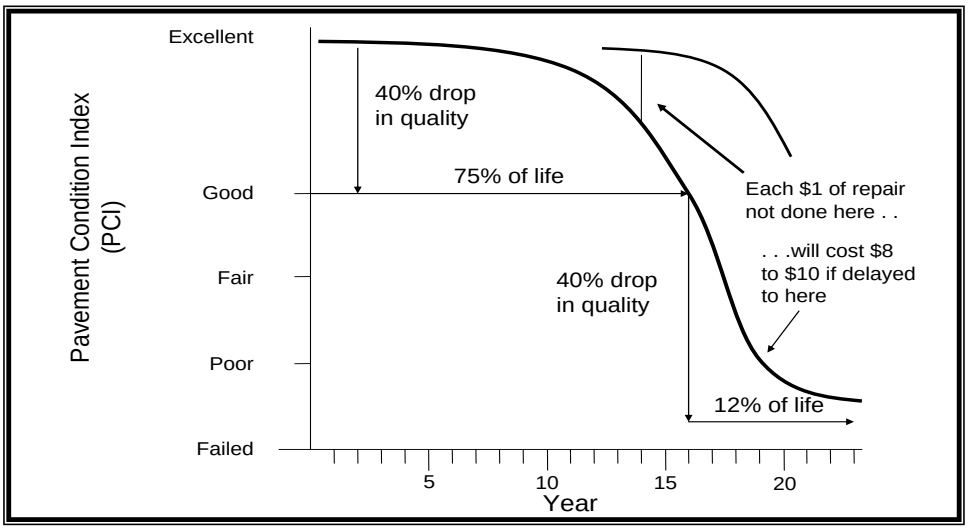
A systematic procedure should be used each cycle to collect pavement condition inventory information. This provides an up-to-date inventory for better decision making and allows pavement performance to be tracked over time. Several different types of pavement distress can occur, each with different types of potential repair strategies. Often a computer program is used to determine the remaining service life (RSL) for each roadway segment based on the governing distress (the distress that results in the lowest RSL). The RSL represents the years remaining until complete failure of the roadway surface. Complete failure occurs when a road segment has an RSL value of zero and reconstruction of the road section (pavement, base, etc.) is required since the road segment has deteriorated to a point that other repair strategies would not be beneficial. The road is passable, but the surface is possibly turning to gravel, extreme fatigue is visible, sections of pavement may be detached or appear to be on the base material.

By evaluating the RSL distribution for the road network, allocation of funds for the appropriate repair strategies can begin. It is important that the repair strategy be focused on the goal of

maintaining an average system RSL of 10-12 years, which represents a level that can be reasonably sustained.

The goal of the analysis is to determine the best distribution of funds, among the available repair strategies, that should be completed each year to produce an average system RSL of 10 to 12 years at the least cost. Failure to maintain pavement at the necessary levels results in a decrease in the RSL and a correspondingly greater future cost to increase the average RSL to the desired level. Figure 4 emphasizes the importance of routine roadway maintenance activities prior to severe deterioration of pavement condition.

Figure 4 Typical Pavement Deterioration Curve



Repair strategies are chosen based on the condition of the road segment. Road surfaces RSL will dictate the repair strategy that should be used. Each repair strategy has multiple repair methods. The repair method used to implement a repair strategy should be based on the standard practices of the city/county. A new strategy is prepared for a two-year period and updated to re-evaluate the pavement condition every two years thereafter. There are five generally accepted repair strategies explained below.

A deferred action is always a viable option when developing a repair strategy. Most road networks will include a wide spectrum of Remaining Surface Life (RSL) for individual road segments. For the first few years after original construction, roadways should require very little maintenance. Likewise, when road segment RSLs becomes less than three, routine and preventative maintenance will no longer improve the RSL. Reconstruction becomes the only alternative that will improve the RSL for road segments that have deteriorated to this stage. Reconstruction costs

are very high and often not available in maintenance funds. Therefore, maintenance for certain roadways will be deferred until adequate funds are available to produce beneficial results that improve the road network system as a whole.

Routine Maintenance is usually driven by existing defects in the road surface. This maintenance is performed to prevent further deterioration of the roadway. Road segments that have RSLs greater than 7 to 10 years can benefit from routine maintenance. Examples of possible routine maintenance treatment alternatives include: crack sealing, cold patches, dig-out and cold patch, and fog coating.

Preventative maintenance is used to stop the deterioration on roadways before the surface distress can become a serious problem. This strategy provides the most benefit to a roadway if implemented before the RSL is below 7 years. Examples of possible preventative maintenance treatment alternatives include sand seal, scrub seal, single chip seal, slurry seal, and micro surfacing.

Rehabilitation includes repair alternatives such as overlays and recycling. This strategy should be reserved for road surfaces that have an RSL between 1 to 7 years. The implementation of this strategy can require intense scheduling and will require allocation of a significant portion of the budget. This strategy should be reserved for road segments that fit into a major planning scheme. A possible candidate for such a strategy would be a road segment that is bordered by a newly constructed portion of the road. Improving the segment would increase the overall performance of the road. Examples of possible rehabilitation strategy treatment alternatives include plant mix seal, thin hot mix overlay <2 in., hot surface recycling, rotomill and overlay.

Reconstruction includes repair alternatives such as complete removal and replacement of a failed pavement section. Improving the road horizontal and vertical alignment, guardrails, and drainage are all elements of a reconstruction strategy. This strategy will require considerable funding and lead time to allow for proper design. Reconstruction of a road segment is going to increase the RSL to nearly 20 years. Therefore, this strategy is reserved for roads that are at the end of their design life. Examples of possible reconstruction strategy treatment alternatives include thick overlay (3-inch depth), rotomill & thick overlay, base repair with pavement replacement, cold recycling and thick overlay, or base and pavement replacement.

Table 17 displays the benefit different treatment strategies provide in increased RSL over the existing roadway segment's RSL along with typical material costs for such treatments.

Table 17 Typical Pavement Treatment Costs and Increased Remaining Service Life

MAINT. TYPE	TREATMENT TYPE	TREATMENT COST		BENEFIT OF TREATMENT (in yrs.) BASED ON RSL EXISTING							
		Per Sq. Yd	Per mile*	0	1 to 3	4 to 6	7 to 9	10 to 12	13 to 15	16 to 18	19-20
Routine	Crack Seal	$1.30	$21,286	0	0	0	0	1	2	3	4
Preventative	Single Chip Seal	$1.30	$21,286	0	1	3	5	5	5	5	5
Rehabilitation	Thin Hot Mix Overlay (<2")	$1.30	$21,286	0	4	6	7	7	7	7	7
Reconstruction	Thick Overlay (3")	$1.30	$21,286	12	12	12	12	12	12	12	12
Total Reconstruction	Base & Pavement Replacement	$46.00	$750,000 - $1.4 M **	20	20	20	20	20	20	20	20

* Cost per mile includes only material costs and assumes 28-foot-wide pavement surface (12' travel lanes with 2' shoulders), additional cost would be associated with wider lanes or shoulders. Substantial additional cost is associated with mobilization, traffic control, striping, or other site specific efforts.
Treatment costs for cities are typically higher and can be as much as double the cost per mile due to additional roadway width and traffic issues.
Costs estimate assume construction costs only. Administration, mobilization, traffic control and other site specific efforts are not included.
** Total Reconstruction can be very expensive and a large range of costs is being experienced by many jurisdictions. The primary reason for such high wide ranging cost is the fact that when total reconstruction activities are undertaken a roadway must be built to current standards of width, horizontal and vertical alignment.

For each treatment type, the treatment improves the RSL of a segment based on the segments current condition. As an example, crack sealing adds no additional life to a pavement that has an RSL of 9 or less. Above 9, crack sealing adds from 1 to 4 years, depending on the current pavement condition. Another example is chip sealing. Chip sealing is one of the most widely used preventative maintenance treatments. Chip sealing roads with RSL of 7 or greater increases the roads RSL by 5 years. However, applying a chip seal to a road with a 4 to 6 RSL only adds 3 years, and applied to a road with a 1 to 3 RSL only adds 1 year. It can be seen that applying chip seals to roads with RSLs of six or less is not a cost effective approach.

County Routine Maintenance Activities

The importance of maintaining the transportation system was discussed above in the existing transportation section of the RTP as well as in the key issues section. This section will briefly describe several of the routine transportation system maintenance activities that occur on a regular basis. Some are directly related to taking care of pavement or roadway surfaces while others are not, but serve a vital function to ensure the safest operation of the transportation network possible. Many of these activities are performed by county crews:

- Gravel and Dirt roadways are graded

- Rock is added to gravel roadways regularly
- Pavement cracks are sealed to prevent more serious degradation in later years
- Potholes in paved surfaces are repaired
- Shoulder maintenance including guardrails, grading, roadside vegetation
- Signage and pavement markings
- Drainage ways such as roadside ditches and culverts. This effort is critical in that if water does not move it can seriously damage the roadway below the surface.
- Bridge maintenance
- Snow removal
- Traffic Services
- Litter Cleanup
- Pavement Markings
- Asotin County also maintains some urban roadways that require sweeping and street lights with associated electricity costs.

Table 18 provides a summary of expenditures for each county over the previous 10-year period. It must be understood that county engineers and others make the best use of funding with available information. The table indicates only the expenditures on the types of activities listed above but does not attempt to identify unmet needs. There are likely many miles of county roadways that are being untreated because more serious problems exist elsewhere. Each roadway must often wait its turn in order of priority.

Examination of Table 18 quickly reveals that considerable funding is required in order to perform the routine maintenance activities described above. Funds reported in the table do not include construction funds for new roads or reconstruction of roads that have failed pavement, nor bridge replacement funds. These are typically only accomplished when grants, which require local matching funds, are obtained.

The amount of funding spent on snow removal, which can vary greatly from year to year, has a direct effect on the level of effort that can be put toward other maintenance activities.

Expenditures for non-paved roadways is considerable, given the amount of mileage that each county has of graveled roadways (75% of total regional roadway mileage). When you consider that non-paved surfaces require more frequent maintenance activities, it is easier to understand the maintenance costs for these critical roadway connections for county farms.

Table 18 Historical Expenditures for Roadway Maintenance and Preservation

Year	Asotin County	Columbia County	Garfield County	Whitman County
2005	$1,445,292	$1,624,669	$1,316,580	$4,208,935
2006	$1,655,365	$1,422,211	$1,235,391	$3,992,095
2007	$1,834,379	$1,875,436	$1,405,834	$4,270,719
2008	$1,845,618	$1,377,000	$1,609,031	$4,915,548
2009	$1,678,632	$1,790,088	$1,030,573	$3,686,379
2010	$1,603,993	$2,028,444	$1,198,753	$3,551,200
2011	$1,878,877	$1,705,878	$1,047,571	$3,722,363
2012	$1,894,880	$1,735,949	$1,258,787	$3,522,200
2013	$2,045,035	$1,631,246	$1,331,673	$3,612,092
2014	$2,026,579	$1,882,985	$1,319,676	$4,356,777
2015	$2,121,719	$1,757,175	$1,302,579	$4,486,505
Total	$20,030,369	$18,831,080	$14,056,448	$44,324,813
Average/Year	$1,820,942.64	$1,711,916.35	$1,277,858.87	$4,029,528.48
Center-line Miles	399.25	500.85	447.1	1897.19
Average/Mile	$4,561	$3,418	$2,858	$2,124

Source: WSDOT Financial Planning and Economic Analysis

Also significant in maintaining the roadway system is the number of structures less than 20 feet in length. The replacement of these structures does not have a designated funding source and can expend a significant portion of county maintenance funds.

Pavement Preservation and Maintenance Activities

Pavement preservation activities primarily include chip sealing of roadways that have deteriorated so much that a new surface must be put in place. Although crack sealing is often done immediately prior to chip sealing, chip sealing involves much more. Although different treatment methods can be used, the basic concept is that additional road thickness is added. Sometimes the old roadway surface is milled away and removed or recycled in order to place the new surface on the best bed possible without completely reconstructing the roadway. Typically, for older roadways, it is most beneficial to perform pavement preservation activities every 5 to 7 years. If pavement preservation activities are not performed regularly every 5 to 7 years then pavement deterioration will occur at an increased rate and the cost to repair the pavement goes up substantially as discussed earlier.

The following table 19 was prepared to show the level of effort that is needed in order to provide the best methods for pavement maintenance and preservation for the jurisdictions in the Palouse

region. The calculations are based on a 24-year maintenance plan with crack seals performed every 3 years and chips seals every 7 years. The cost is based on an average construction cost per square yard and does not include administration, mobilization, traffic control or other site-specific efforts, which could increase the cost significantly. For both cities and counties, $1.30 per square yard was used for crack seals and chip seals. Detailed calculations for pavement maintenance and preservation costs for each city and county are included in Appendixes G, and H respectively.

Table 19 24 Year Pavement Preservation Cost Forecast

		Crack Seal		Single Chip Seal	
MUNICIPALITY	Miles	24 year cost	average cost per year	24 year cost	average cost per year
Asotin County					
City (all combined)	46.78	$8,981,760	$374,240	$3,849,336	$160,389
County	166.09	$26,660,736	$1,110,864	$16,000,416	$666,684
Total	212.87	$35,642,496	$1,485,104	$19,849,752	$827,073
Columbia County					
City (all combined)	19.01	$3,649,920	$152,080	$1,564,248	$65,177
County	141.41	$18,551,904	$772,996	$11,131,128	$463,797
Total	160.42	$22,201,824	$925,076	$12,695,376	$528,974
Garfield County					
City (all combined)	18	$3,456,000	$144,000	$1,481,136	$61,714
County	123.58	$19,123,488	$796,812	$11,474,088	$478,087
Total	141.58	$22,579,488	$940,812	$12,955,224	$539,801
Whitman County					
City (all combined)	202.85	$39,139,200	$1,630,800	$16,773,936	$698,914
County	418.35	$62,948,640	$2,622,860	$37,769,184	$1,573,716
Total	621.2	$102,087,840	$4,253,660	$54,543,120	$2,272,630
Total		$182,511,648		$100,043,472	

Note: City road widths assumes a 32-foot-wide road.

Costs estimate assume construction costs only. Administration, mobilization, traffic control and other site specific efforts are not included.

City road miles are taken 2008 WSDOT Revenue & Expenditures Summary.

County road width and miles are actual amounts from the County Road Log.

County road widths vary depending on actual road width

Crack seal cost estimate assumes $1.30 per sq.yd. for counties and cities

Chip seal cost estimate assumes $1.30 per sq. yd. for counties and cities

Crack seal assumes a 3yr maintenance plan

Chip seal assumes a 7yr maintenance plan

Total anticipated cost to maintain pavement system within the region is anticipated to be $282.6 million dollars, in 2016 dollars. It should be noted that the costs above only include the cost to

preserve existing paved roads. With 445 miles of unpaved arterials, the Palouse region has 26% of the unpaved arterial roadway mileage in Washington State. This significantly contributes to the fact that only 29.3% of the Freight and Goods Transportation System of roadways are adequate as shown in Table 5 earlier.

Also, based on Table 4 data, the following Table 20 was prepared to calculate the cost to pave all of the existing gravel arterials so that they comply with the Palouse design standard. It was assumed that the surface type of the roadway would be Bituminous Surface Treatment (BST) due to the fact that 90% of all paved county roads have a BST surface. Also, an average roadway width of 26' was used. See Appendix I for the detailed estimate on cost summary.

Table 20 Cost to Pave Current Gravel Arterials

	Asotin	Columbia	Garfield	Whitman
Miles	72.60	87.76	89.45	196.16
Cost/Mile	$96,710	$96,710	$96,710	$96,710
Total	$7,021,146	$8,487,269	$8,650,709	$18,970,633
Total All Counties	$43,034,954			

Notes:

Assumes converting existing 26' wide gravel road with BST surface type

Arterial roads also include collector roadways.

Table 19 and 20 provides rough cost estimates in 2016 dollars, additional cost such as administration, site specific efforts and traffic control has not been estimated. The above estimates are for the review only. Based on the 2004-2015 expenditures report, Cities have averaged 24% of their revenue in maintenance and preservation only, while counties have spent roughly 37% of their revenue for the same. The Palouse region is expected to receive approximately $664.8 million dollars in a revenue over the next 24 years (table 25), out of which roughly $230.1 million (roughly 35%) will go towards the pavement preservation and maintenance. Of those dollars, approximately $41.5 million is proposed to be used to fund pavement maintenance projects through the County Arterial Preservation Program (CAPP) and the Reclaimed Asphalt Program (RAP) programs while $188.6 million is for other maintenance described at the beginning of this chapter.

Due to the total road miles within each county, the forecasted revenue for maintenance and preservation of county roads is not enough to meet the needs of the region. The Palouse region will need a significant amount of additional funding in order to keep up with the routine maintenance and preservation program described above. Also, to be able to pave all of the gravel

county arterials to a BST roadway surface, the region will need an additional $43 million. As a result, the 24-year maintenance and preservation forecast for the region identifies that more than 40% of the pavement maintenance projects for the region will be unfunded. By comparison with the state, to preserve, maintain and operate city streets and county roads statewide are grossly unfunded.

Section X: Safety and Roadway Geometrics

As identified in the region's key issues section earlier, safety is an important aspect of the transportation system. A closer examination of the accident data presented earlier in Table 13 was performed to endeavor to recognize trends in the data. It was expected that higher accident rates on county roads would be shown because of their narrower, winding nature. Table 21 is a summary of the accident rates on county, state and city roadways. The statewide average accident rate for rural state highway collectors is 1.60 per million vehicle miles of travel (MVMT). It is important to note that on low volume roadways the accident rate can vary substantially from year to year with even a small change in the number of accidents. For example, some roadways that are short in length have a very small amount of vehicle miles of travel and with a single accident, they can have accident rates over 100/million vehicle miles of travel. Likewise, safety improvements to a corridor may not demonstrate significant improvement until a longer period of time can be evaluated.

Table 21 Palouse Accident Rates Summary

County Roads					Total
	Asotin	Columbia	Garfield	Whitman	
Total Miles	399.25	500.85	447.10	1897.19	3244.39
Total MVMT	149.13	57.15	70.62	235.45	512.34
Total Accidents (2014 - 2016)	182.00	69.00	36.00	232.00	519.00
Accidents / MVMT	1.22	1.21	0.51	0.99	0.98

State Roads					Total
	Asotin	Columbia	Garfield	Whitman	
Total Miles	55.38	44.04	43.18	278.35	420.95
Total MVMT	115.28	94.45	84.30	723.11	1017.13
Total Accidents (2014 - 2016)	278.00	132.00	95.00	1055.00	1560.00
Accidents / MVMT	2.41	1.40	1.13	1.46	1.60

Note: Whitman County city road mileage and accidents also include Washington State University.

City Roads					Total
	Asotin	Columbia	Garfield	Whitman	
Total Miles	46.78	19.01	18.00	202.85	286.64
Total MVMT	235.14	210.42	205.56	88.74	739.85
Total Accidents (2014 - 2016)	185.00	22.00	11.00	630.00	848.00
Accidents / MVMT	0.79	0.10	0.05	7.10	2.01

Source: WSDOT Online Traffic Data Portal

The higher accident rates on county roads is not evident in the data. However, it is interesting to note that 519 accidents occurred on county roads, while 1,560 accidents were on state highways, and 848 accidents were in urban areas. In urban areas, most accidents involve multiple vehicles due to the unpredictability of moving objects. In rural areas, where less traffic is present, it would seem that accident rates would be lower, which the data shows. However, the statistics described above, with respect to the percentage of single-vehicle accidents, would tend to indicate that there is a significant difference between the characteristics of county roads when compared with state highways. Even though some of the state highways in the region are not built to state highway standards, they generally have shoulders and wider lanes. This would indicate that in rural areas, there is a much higher correlation between accidents and road design than there is with traffic volumes. Because of the topography of the region, many of the roadways have frequent horizontal and vertical alignment changes as they wind around hills and follow rivers and streams through valleys. Initial construction of these roadways was achieved without many cuts and fills to straighten alignments and improve sight distances. Also, travel lanes are often narrow and shoulders are sometimes non-existent, very narrow, or in disrepair. Several intersections in the region have poor sight distances and adverse approach angles, making it difficult for trucks to turn onto main highways.

Many improvements can be achieved on rural highways, if there's sufficient funding available. If there is no shoulder along a roadway there is very little margin for error. Additional roadway width would allow drivers more time to take corrective measures. Table 22 identifies the current roadway design standard for the Palouse region and compares each county's current road dimensions in order to determine a number of deficient roads.

Table 22 Regional Roadway Design Standards

	Rural					Urban		
	Arterial	Major Col.	Minor Col.	Local	Low Vol.	Arterial	Collector	Local
Number of Lanes								
Low	2	2	2	2	2	2	2	2
High	2	2	2	2	2	4	2	2
Lane Width								
Low	11	12	11	11	10	11	11	11
High	12	12	12	12	11	12	12	12
Center Lane Width								
Low	0	0	0	0	0	12	12	12
High	0	0	0	0	0	14	14	14
Shoulder Width								
Low	3	2	1	1	2	6	4	2
High	8	6	6	4	2	8	6	4
Roadway Width								
Low	28	28	24	24	24	46	42	38
High	40	36	36	32	26	78	50	46

(Source: Palouse RTP 2010)

As a result, it was identified that most low volume county roads are graveled. Therefore, they have a relatively high deficiency rating. Other deficiencies noted were based on roadway width and surface type. Table 23 identifies how many paved road miles are deficient in shoulder width and what the cost would be to improve the shoulders to the current standard.

Table 23 County Roadway Design Standard and Deficiencies

Low Range of Standard

Performance Measure	Asotin			Columbia		
	Miles Deficient	Total Miles	% Deficient	Miles Deficient	Total Miles	% Deficient
Paved Roads						
Rural Arterial	-	-	-	-	-	-
Rural Major Collector	43.6	72.2	60%	99.74	106.36	94%
Rural Minor Collector	1.89	7.11	27%	17.32	34.91	50%
Rural Local	-	-	-	-	-	-
Rural Low Volume	1.62	5.43	30%	4.16	5.43	77%
Urban Arterial	10.5	14.61	72%	-	-	-
Urban Collector	6.17	6.43	96%	-	-	-
Urban Local	57.55	60.3	95%	-	-	-
Total Paved Roads	**121.33**	**166.08**	**73%**	**121.22**	**146.69**	**83%**
Unpaved Totals	211.01	234.13	90%	333.26	356.65	93%
TOTAL	**332.34**	**400.21**	**83%**	**454.48**	**503.34**	**90%**

Low Range of Standard

Performance Measure	Garfield			Whitman		
	Miles Deficient	Total Miles	% Deficient	Miles Deficient	Total Miles	% Deficient
Paved Roads						
Rural Arterial	-	-	-	-	-	-
Rural Major Collector	74.05	113.18	65%	165.22	271.35	61%
Rural Minor Collector	1.43	14.33	10%	45.32	147.98	31%
Rural Local	-	-	-	0.07	2.71	3%
Rural Low Volume	2.91	5.25	55%	10.55	15.4	68%
Urban Arterial	-	-	-	-	-	-
Urban Collector	-	-	-	-	-	-
Urban Local	-	-	-	-	-	-
Total Paved Roads	**78.39**	**132.75**	**59%**	**221.15**	**437.45**	**51%**
Unpaved Totals	277.29	314.35	88%	1269.65	1471.17	86%
TOTAL	**355.68**	**447.1**	**80%**	**1490.81**	**1908.61**	**78%**

(Source: Palouse RTP 2010)

Table 24 Shoulder Improvement Costs

Low Range	Paved County Roads					
	Asotin			Columbia		
Deficient Width	Miles Deficient	Cost/0.10 Mile	Total Cost	Miles Deficient	Cost/0.10 Mile	Total Cost
2	35.355	$23,750*	$8,396,813	3.45	$23,750	$819,375
4	26.744	$31,250	$8,357,500	42.9	$31,250	$13,406,250
6	7.95	$40,000	$3,180,000	35.36	$40,000	$14,144,000
8	12.264	$48,750	$5,978,700	39.13	$48,750	$19,075,875
10	4.962	$56,250	$2,791,125	0.16	$56,250	$90,000
12	11.65	$65,000	$7,572,500	0.22	$65,000	$143,000
14	8.718	$72,500	$6,320,550	0	$72,500	$0
16	2.916	$81,250	$2,369,250	0	$81,250	$0
18	4.705	$88,750	$4,175,688	0	$88,750	$0
20	3.878	$97,500	$3,781,050	0	$97,500	$0
22	0.426	$106,250	$452,625	0	$106,250	$0
24	0.61	$113,750	$693,875	0	$113,750	$0
26	1.149	$122,500	$1,407,525	0	$122,500	$0
Grand Total	**121.33**		$55,477,200.00	**121.22**		$47,678,500.00

Low Range	Paved County Roads					
	Garfield			Whitman		
Deficient Width	Miles Deficient	Cost/0.10 Mile	Total Cost	Miles Deficient	Cost/0.10 Mile	Total Cost
2	36.9	$23,750*	$8,763,750	74.96	$23,750	$17,803,000
4	31.89	$31,250	$9,965,625	99.34	$31,250	$31,043,750
6	8.69	$40,000	$3,476,000	34.62	$40,000	$13,848,000
8	0.45	$48,750	$219,375	11.54	$48,750	$5,625,750
10	0.46	$56,250	$258,750	0.4	$56,250	$225,000
16	0	$81,250	$0	0.29	$81,250	$235,625
Grand Total	**78.39**		**$22,683,500**	**221.15**		**$68,781,125**

(Source: Palouse RTP 2010)
*Inflation rate from 2010 is added for the cost estimates, WA state OFM inflation calculator

A more detailed examination was undertaken of accident data secured as part of this RTP update. County roadways with a higher accident rate than the countywide average accident rate were identified. The Palouse region needs $194.6 million to improve roadway shoulder width for county roads. Improvement priorities are identified based on the accident rates for the roadways. Other high priority projects can include implementing low-cost improvements such as signage, rumble strips and other safety devices to help increase driver awareness and safety. Shoulder improvements include those listed above in Table 24, which would widen the shoulders of the existing narrow roadways to meet the region's current design standards.

Section XI: Palouse 2040 Discussions and Strategies

It is always very difficult to predict how transportation future and projects may look like, let alone for the next five years, rather than optimistic 24 years like any long range regional transportation plan. There are many factors that play vital role in such decisions. These factors can be funding constraints, planning and transportation impact studies, right of way acquisitions, land usage policies, environmental constraints, legislatures' approval of funding programs, and finally various hurdles during various engineering and construction phases. These factors can change projects and priorities for any local government. However, as a part of collecting the input from all constituents of the region, Palouse RTPO staff held numerous one on one, face to face. or over the phone meetings with all local jurisdictions and member agencies within the Palouse RTPO region. This discussion was vital to initiate a conversation of each agency's intent to improve their transportation infrastructure and vision for the next 24-years.

Following various discussions with each participating local agency, the Palouse 2040 plan elaborates on development strategies and concerns identified by each agency as below.

Asotin County Local Agencies

Asotin County:

Palouse RTPO staff held one on one meetings with all local agencies within the Asotin County. Various issues impacting countywide policies and priorities, countywide key issues, upcoming, ongoing and visionary projects discussed are included in the Palouse 2040 Plan.

Asotin County concurred that their policies and priorities are similar to that of Palouse Regional Transportation Plan. These policies and priorities are also in alignment with the Lewis and Clark Valley Metropolitan Planning Organization (LCVMPO), which also represents Asotin County.

The County discussed the increasing importance of Evans Road in county roadway transportation network due to new businesses and possible future growth. The County intends to conduct a local transportation plan in partnership with the City of Clarkston over the next year. Rural arterial roads have difficulty getting funding including Peola Road, Grand Ronde Road and Snake River Road which have major sections still unpaved. The County relayed public concerns such as maintenance of surface roads, public access to bike and trail pathways, the Intestate blue bridge not having a pedestrian access, operation safety at the Critchfield intersection and various connectivity opportunities limited due to lack of funding for bike and pedestrian access. The County discussed the upcoming Fleshman Way Interchange project that will be constructed in

2017. In the coming years the County will need to replace the surfacing of the Southway Bridge. The bridge is owned by the four local entities (Asotin County WA, Nez Perce County ID, Clarkston WA, and Lewiston ID. The funding for the project will be divided equally between all four entities.

The multimodal connection is assessed in LCVMPO's Ped-Bike plan. The county and other local agencies within the county expressed concerns on recent scoping efforts being conducted by Army corps of engineers on the Columbia River navigation system. The possibility of dams being breached and how it will impact the county and port operations will need to be considered. The rail system as currently structured would not be able to support the additional traffic and will need improvements to make it a viable option for freight movements.

Port of Clarkston:

During a meeting with the Port of Clarkston, the port suggested the possibility of a feasibility study for west side dock improvements for future freight access. The possibility of projects along 14th street that is the route to and from freight docks and connecting roads. The port is also hoping to coordinate with the county about the possibility of the Turning Point Business Industrial Park becoming an Asotin County property in the next 20 years.

The port emphasized a key issue on the Snake River was the constant river sediments requiring dredging every 6-7 years to ensure cruise boats and other commercial boats can dock at the port. The most recent dredging was completed in 2015. Recent inspections suggest that the sediment is building up faster than previously, and may increase the frequency of dredging operations. The port plans to conduct a feasibility study to determine the sediment deposits and identify various ways to reduce sedimentation, including the possibility of investing in permanent solutions for the sediment deposits.

Columbia County Local Agencies

The Columbia County local agency meeting was held with the county commissioner, the mayor of the City of Dayton and the county engineer. Additionally, Palouse RTPO staff held individual calls with Columbia County Transit Agency and the Port of Columbia to ensure input from all local agencies within Columbia County.

During the discussion, the county addressed a few of the issues with the change in county priority roads that are updated in Appendix E. Additionally, the group discussed the following issues as the transportation priorities and current countywide needs:

- The county emphasized a few of the high priority roads as:
    - Smith and Hollow Road,
    - SR 261,
    - N Touchet Road,
    - Turner Road,
    - McKay-Alto Road, Patit Road and,
    - Eckler Mountain Road (for recreational purposes)
- The commissioner and mayor agreed that SR 261 needs to be evaluated for improvement and expansion as a pulp manufacturing plant is expected to break ground in 2017, and can possibly add more than 100 jobs in Columbia County.
- The county is also looking at various options to replace Bailey Bridge in the next 20 years
- The group agreed road access during recreational times is an important issue that residents have brought to the county's attention, and needs to be resolved. The county is looking forward to working on providing needed access to those roads.
- The county and city are both working with WSDOT to improve access and safety on US 12, within the county boundaries.
- The county hopes to keep working on the new windmill and Columbia Pulp projects in the next five years.
- Columbia County understands how important dams and the Snake River are for the region and have been continually supporting various efforts and planning studies to improve access to the Port of Columbia for economic as well as freight movement throughout the county.
- The county and city, in partnership with Palouse RTPO, are looking forward to updating their FGTS data in 2017-2018 to reflect correct tonnage and traffic volume.
- To increase countywide safety, roadway geometry, and multimodal transportation systems, the county is currently looking at various intersection improvements along US 12 as well as bridge improvement on Main Street.
- In addition, the county has two private airstrips and one airstrip belonging to the Army Corps of Engineers. The county aims to work with private owners to improve and keep in compliance with regulations.
- The City of Dayton is aiming to adopt a Complete Streets Policy in 2017 and hoping to improve US 12 within the city boundaries for missing sidewalks as well as construction for pedestrians' safety.

Overall, the group agreed that all county, city, transit agencies and the port have been constantly looking for various different funding sources that can benefit the county to improve and preserve the existing transportation system within the county perimeter.

Whitman County Local Agencies

Whitman County

Whitman County is the highest population county in the Palouse Region with approximately 49,000 residents. A local agency meeting with Whitman County yielded many needs for the county, with questions about how the funding works on various aspects of county projects. The county talked about the access road resolution that requires a minimum of 500 ft. in both directions and how the county is adding various efforts to keep it maintained. Also, the public works department keeps up with various maintenance plans and scenarios such as maintenance for access roads, county roads, bridges, and equipment. Various planning efforts are being made to achieve this with an available budget of roughly $38 Million.

The county is determined to ensure safe access for agricultural transportation needs and WSU and Schweitzer employee needs, as well as keeping up various roads that connect more than 15 towns in Whitman County. The county considers freight and passenger cars as a priority when making funding decisions for all arterial roads.

The county has almost 1900 miles of county roads and various state routes that are maintained by WSDOT. The county constantly works with WSDOT and CRAB (County Road Administration Board) to develop roads for efficient and safe use. A lack of funding was expressed as a major concern for Whitman County. Many of its roads need to be all weather roads and the county ends up closing roads that are not safe during extreme winter weather. In addition to various transportation planning efforts and county needs, Whitman County stated that the following topics are priorities:

- Almota Road is underfunded and needs attention in coming years, also, other needs of utmost importance are SR 194 road grading, chip seals and keeping up with weather as it connects with Almota Road.
- The county strives to use various resources to improve, maintain or replace bridges on county roads. Most of the county bridges need a 35% local match when funded by the Federal Bridge Replacement Program which comes from the Federal Gas Tax (from federal highway funds).

- The pavement preservation system on a state and county level is underfunded, as the county plans to chip seal priority roads each year, each one usually lasting 7-8 years.
- The county is trying to use various economic alternatives to maintain the existing infrastructure as gas tax funds are being increasingly reduced or staying at a constant rate (4.5 cents out of 28 cents on a state level), while the requirements and project costs have been increasing every year.
- Due to various financial constraints, the county has lowered its staff from 92 employees to 72 current employees in 2016; however, the cost of construction and equipment maintenance has been increasing steadily.
- The county expressed general concern about the future of gas tax revenue with electric cars and other fuel alternatives, and how the state will find a way to address the current budget and account for inflation, expansion, and increased project costs.
- One of the most important roads the county plans to fund in the future with assistance from various grants and partners is Pullman Airport Road. The county is actively seeking ways to find funding resources for the road.
- The recent federal grant approval for the Moscow-Pullman Regional Airport ($115Million) project will enable jet planes to use the airport and will eventually make Moscow-Pullman Road one of the vital roads from the airport to various communities in the region.
- The county is very active and the County Road Administration Board (CRAB), who funds various county roads, will do planning studies as well as emphasize keeping county roads preserved and maintained. A recent study conducted by CRAB, assessed gravel roads in the entire State of Washington, Whitman County includes almost 1100 miles of gravel roads.
- The county also recognizes that dam breaching is a serious threat to the region and we should support our dams to preserve the infrastructure we have, as almost 90% of commodities grown in Whitman County use barges for transportation.

It is important to the county commissioners and public works director to keep our infrastructure preserved and efficient. The county plans to find various options in the future that can help the county fund top priority projects.

City of Colfax

Palouse RTPO staff had a lengthy discussion with the city administrator and their public works director to determine goals, policies, and upcoming and ongoing projects for the city. The City of Colfax is starting various initiatives to inspect and preserve bridges.

The city desires to preserve the railroad, Rail to Trail opportunities, and keeping up with bridge inspections and maintenance as a future need. Future projects for the city include an industrial park by the airport in Colfax; Main Street future ideas on US 195-S Street; US 195, and Main and Thorne Street reconfiguration. A SR 26-bridge rebuild that was originally planned in the 90s is still yet to happen. Additional improvements include Island and Main St; the railroad corridor (from Last St to Main St/Cooper St); bike trail improvement from Greenway to Best Western and Morton Street; a pedestrian crossing on Spur Street for schoolchildren; and the Colfax Trail to Greenway Trail Way.

The city has also been proactively collecting various traffic data to improve city roads and infrastructure. The city also plans to put in pedestrian signals where needed and is collecting data to support that effort as well. The City of Colfax has also recently adopted a Complete Streets Ordinance. The city has outlined a few of the upcoming projects it aims to achieve.

- Road widening by the hospital for future industrial park prospects
- Pedestrian safety on US 195
- Bridge replacement/repair from Cedar to the Sixth Street
- Key Corridors identified are:
    - Main Street (Alternative route Mill Street)
    - SR 272 and SR 26
    - Cedar/North Palouse River Road, Morton Street and Fairview Street
    - Colfax- Albion- Pullman (CAP) Rail Road/ trail way/ Walk- Bike Path
- Continued support to Port of Whitman Airport development
- Coordinated efforts to allow public transportation between Colfax and Pullman as a fixed route

City of Pullman

The City of Pullman meeting was held to understand what the city's priorities and goals are for the next 20 years. The city of Pullman is the only urban area in the four county region of the

Palouse RTPO. The city also has the highest population in the region with a little over 34,000 people in 2015.

The city has identified the following priorities:

- The city considers a bypass as one of the important priorities and is actively seeking ways to make it happen. A south bypass has been planned and progressed based on the commercial and residential development happening along the proposed bypass route. However, a north bypass will be looked at after a conceptual design study is finished before transferring the right of way from WSDOT.
- Utilizing NW Ring Road, former SR 276 right of way from N Grand to US 195 will be considered as a route possibility for connecting road from SR27 to Golden Hills Drive.
- New development is being planned for Golden Hills Drive. It is considered as a Southwest Ring Road
- A Traffic signal is planned at S Grand Avenue and Center Street due to safety concerns.
- A Colfax-Albion-Pullman (CAP) trail has been a topic of conversation with the city council as well as many interested citizens, and the city plans to look into possible efforts in this development.

The City of Pullman is also conducting ongoing studies to mitigate downtown congestion during peak hours and hoping to find a solution that can work for everyone.

The city considers Pullman Transit as one of their most important assets and are aiming to keep improving and continue providing sustainable transit services within the city limits with limited available resources.

The city also showed an important effort to work with regional priorities and issues that align with the rest of the Palouse region. The city added important maintenance and preservation goals, and Americans with Disabilities Act (ADA) plans and efforts to implement ADA access for citizens. The city is also addressing citizen concerns regarding downtown congestion, truck routes, and turns that play a vital role for residents.

The city is also studying and coordinating various efforts to understand and implement a WSU Pedestrian-Bike Plan within the city limits. The city also suggested an ongoing effort with WSU on their plan to close Stadium Way as a few citizens have brought this up as a concern. The city aims to keep working with WSU to find an alternative solution that can work for everyone.

The city has always been concerned with safety with all of their projects, and are also planning various ways and strategies to address all safety concerns. The city is appreciative of WSDOT's effort to add 6 passing lanes on US 195 and 4 passing lanes on SR 26. They also emphasized how important the Palouse Driver Education Campaign is for the region to reduce fatal and serious crashes with driver education, with a main focus on Washington State University and University of Idaho students. In an effort to develop a multimodal transportation network, the city has already been working on adding and maintaining the existing trail system in the city. Also under consideration, is the possibility of creating a north trail loop for the city.

Moscow-Pullman Regional Airport is also gearing up for a large project to realign the runways to allow major commercial carriers to use the facility in compliance with FAA regulations. The total cost of the project is determined to be $115 million. The Cities of Pullman and Moscow, with the help of various agencies, including counties, ports, and private donors have supported the 8.125% match needed for the grant. Additionally, the city is also considering adding a new terminal, should there be an opportunity in the near future.

Garfield County Local Agencies

A meeting with Garfield County was held with representatives from the Port of Garfield, the City of Pomeroy, Garfield County, and Garfield County Transit Agency. During the discussion, the county addressed various ongoing efforts to improve county transportation facilities. Garfield County and other agencies emphasized following priority roads and projects that are ongoing.

- A few of the high priority roads for all of the agencies within the counties are: Port Way Road near the Port of Garfield, Central Ferry Port Road, Geiger intersection, 15th and 16th Streets, Mayview-Kirby Road, Upper Deadman Road and Hill Street in Pomeroy.
- The City of Pomeroy has recently completed its 6-year Transportation Improvement Plan (TIP) and is working on various ongoing and planned preservation projects, such as the 6th Street Bridge, intersection improvements on 15th Street and Peola Street, Hill Street, and have recently submitted a grant application to improve the Columbia Street and US 12 street intersection.
- The county is also working on various ongoing efforts of countywide safety projects in partnership with WSDOT, CRAB and at the local level. And additionally, a safety project on Mayview-Kirby Road.
- The county and city, recognizing the importance of the Garfield County Transportation System and its importance to its citizens, and have recently moved towards establishing

an independent local agency as a Garfield County Transit Authority, approved in January 2017.

- Garfield County, and its cities within, share and combine their comprehensive plans for everyone to keep consistent with city and county visions. In addition, Garfield County is currently working on a safety plan, citywide signage update, sidewalk construction at various locations, ADA accessibility concerns, etc.
- Road geometry issues are being looked into at the Port of Garfield as an ongoing effort to improve safety.
- Garfield County and its transit agencies are also looking at various avenues to increase transit connectivity with Spokane and Whitman County. Currently, there is a demand for 2-3 vehicles per week to Whitman County and the county is finding options to meet the demand.
- The county public works department is also working on a long-range transportation plan for Garfield County that will emphasize pedestrian and bike accessibility.
- The county currently has an approx. 0.5-mile dedicated bike path by the Port of Garfield facility and a partial path of 0.25 approx. miles. In addition, many projects are being undertaken to improve ADA access throughout the county.
- All agencies are also looking into the feasibility of a possible trail/ bike path between Clarkston and Pomeroy in coming years.

In addition, the agencies are involved in various planning and construction efforts to maintain and preserve the current highway infrastructure, future needs for the county, and are constantly looking for various new funding opportunities that the county can benefit from. All participating agencies are also actively engaged in Palouse RTPO and WSDOT transportation projects and planning activities.

Palouse 2040 guides regional transportation investments over the next 24 years. It represents the efforts of government agencies serving the Palouse region in coordinating the planning of diverse transportation systems to support the region's anticipated growth and meet its policies and goals. The plan was developed through a cooperative process involving, the Washington State Department of Transportation, the public, and ongoing transportation planning efforts of RTPO counties, cities, ports, transit agencies and other service providers in the region. A wide range of regional transportation projects and strategies are identified in Palouse 2040. These projects and strategies create a comprehensive, integrated, multimodal transportation system to serve the

region. Since not all projects can be funded over the next 24 years, the region establishes priorities for its transportation improvements. The priorities were used to establish a framework for the plan. The framework essentially identifies the core transportation needs, which other regional improvements will complement to improve transportation needs.

Summary of Public Comments Received

Public Comments:

During the Palouse Region wide seven public meetings, following comments and concerns were received by the attendees; additional comments were collected through online surveys, which are highlighted on next page.

Comments received through public meetings and open houses:

- HWY128 downriver road dangerous for Cyclist
- Diagonal Street, Clarkston is dangerous for pedestrians
- Costco Walmart congestion will grow further with 100+ employees for Renaissance down there
- Bridge St/Hwy 12 in Clarkston capacity Problem, Surface, Curb, gutter (Stormwater) problems
- ADA access is deplorable
- Street arcs at intersections are sharp, a problem for truck traffic
- Blue Bridge Bottlenecks: Malfunction junction at bridge, also at 2nd and diagonal
- Capacity issues- may not meet future growth
- Future bridge is needed, existing bridges will not meet future needs, where will next bridge be built at and when?
- Freight movement can be enhanced
- Rail improvements at the port of Wilma is needed
- Look at extending downriver road to Almota
- Region needs wayfinding/ signage improvements
- Identify and create info on bike to work routes
- Need to keep river navigation maintained and encouraged for additional river freight movement
- Dock and Street connection needs to be improved
- Evans Roads need shoulders, cyclists are in danger

- Pedestrian safety needs to be improved along with bridge congestions
- States and counties should work together in safety issues

Pullman Colfax area specific public comments received:

- Emphasize construction of Colfax- Albion- Pullman (CAP) bike/ pedestrians trail
- Maintain rail options stimulates economic growth
- Expands recreational opportunity to Improve citizen's health and wellbeing
- Promote greater community and connectivity
- Provide region wide safe bicycle opportunities
- Need a shuttle service from Colfax to Pullman
- Need meaningful transit connectivity
- Need Saturday transit services
- Bus routes should consider business/ employee needs
- Develop the rail corridors between Pullman- Albion and Colfax to preserve it for future needs, provide recreational and commuter options
- Provide the recognition and valuing to walking as a mode of transportation

Summary of comments received through Online Surveys:

A brief statistic of the online survey conducted during the preparation of this plan, and their responses on various questions and concerns are highlighted below. Please see the appendix D and D1, for detailed information on survey results.

- 62% of the participants identified their role in transportation as an "interested citizens" while 21% participants were interested in Pedestrian and Bicycle improvements related activities.
- **Top five transportation usage** amongst the participants were identified in following order: Single Occupancy vehicle users, Walkers, Bikers, Public Transit users and Freight Truck drivers.
- Only 6% participants consider current regional transportation system as an excellent, while 45% suggested it as good, and other 49% suggesting it needs improvements.
- **Top five Transportation Key issues** amongst participants were identified in following order: Bicycle lanes, Trails and Path Network improvements, Public Transportation Improvements, Paved Road Improvement, Gravel Road Improvement

- **Top five transportation improvements** participants would like to see in following order: Bike lanes, four lane highways, Cross walk signaling improvement, Scenic Byways Improvements
- **Top three identified transportation concerns during winter driving**: Lack of Safety, Lack of Shoulders and County road winter closures
- Public Involvement with Previous Regional Transportation Plans (RTP): 79% respondents suggested they were not aware of the regional transportation plan, while 10% suggested they were aware of the plan and previous RTP was clear enough to understand.
- 51% participants were female and 99.4 % out of total participants were everyday transportation users.
- 51% participants were in age range of 26-55, while 40% were 56 and older
- 60% of the participants were employed full time, while 21% were retired, with others being student or working part time.
- 49% participants had a household income of more than $75k, while 42% had a household income from $30k to 75k.
- 87% participants were Caucasians while 13% were from various different races.

Section XII: Palouse 2040 Projects

Regionally Significant High to Medium Priority Projects:

Brief descriptions on regionally significant project is summarized below. They are not listed in any orders of priorities:

Pullman Bypass Construction and development

For many years, the Washington State Department of Transportation (WSDOT) has periodically investigated the issues and needs of the Pullman and Colfax areas in Whitman County. A detailed advanced planning study for Pullman and Colfax was documented in 1994 and later in 2007. Although several by-pass alternatives were conceived and examined, after evaluating the costs, environmental documentation, forecast traffic data and public input, it was recommended to proceed with operational improvements and design modifications for SR 27 through the city. Many of these improvements have been completed.

The impetus for many of these studies has been the growth in Pullman, the important role that Pullman plays in the region, and the congestion and high traffic volumes evident on SR 27, SR 270 and US 195 in and around the city. The study indicated that signs of congestion and capacity deficiencies were occurring, but that an immediate need for construction of a by-pass was not evident. The North Alternative B as a four-lane divided highway was expressed as the preferred alignment. It was recognized that funding sources other than WSDOT would need to be secured. The City of Pullman, Whitman County and Washington State University had, at the time, expressed an interest in taking the lead in constructing portions that would include a two-lane facility connecting SR 27 and SR 270 on the existing state-owned right-of-way. Although more detailed environmental studies were needed, it was decided that engineering work on this phased approach could be performed with plans to accommodate future expansion by WSDOT to a four-lane facility.

With increased growth in the downtown core and high truck volumes, the city reevaluated the 1994 Advance Planning Study with the South By-Pass Conceptual Route Study in 2008. The purpose of this study was to identify potential alignments for a bypass around the south edge of the city. Three route alternatives were identified with Alternative B being the preferred route. In addition to the bypass route, the city also implemented a Northwest Ring Road Conceptual Route Study in 2008, which identified potential route options for an arterial roadway in northwest Pullman. Due to the increase in single-family development in the area over the last few years, the city felt it was

important to identify future route options in order to preserve right-of-ways. This study also took into consideration the SR 276 Route Development Plan prepared by WSDOT.

In addition to the two studies above prepared by the city regarding the Pullman bypass routes, WSDOT reevaluated the Route Development Plan for the North Pullman Bypass in 2007 and initiated a land deed transfer conversation with the city and County in 2016. The purpose of this RDP was to address potential crossings not identified in the original access report, and potential interim surface arterials and utilities within the SR 276 corridor.

Moscow Pullman Airport Runway Realignment Project

This is one of the major ongoing regionally significant project happening in the Palouse RTPO. The proposed project allows a new runway alignment that can allow the Jet planes to be landed at the Regional airport. The project will also look at the airport expansion to meet increased demands. The project is scheduled to spend $115 million dollars on the Runaway expansion.

Once the construction is completed in 2019 and Runway is open, it will be expanded to 71 feet and will be capable of bringing Boeing 737 to the region. Airport usage has been constantly growing due to large businesses like Schweitzer Engineering Laboratories and Washington State University. In 2016, Airport handled more than 100,000 passenger traffic alone.

Details of the scheduled work and spending activities can be found at the airport section of this plan.

Colfax US 195 and SR 26 Intersection Update Project

Over 10,000 vehicles a day travels through the intersection of State Hwy 26 and United States Hwy 195. The two bridges are owned and operated by WSDOT which make up the intersection date from 1938. They have been deemed functionally obsolete. The west side sidewalk on the 26 spur bridge is closed because of the condition of the sidewalk. The sidewalk is held up by two stacks of railroad ties. The City is beginning to lobby state and federal agencies to fund the modernization of this intersection including bridge replacements and a possible construction of a roundabout. City and WSDOT have applied for a TIGER grant during 2015 and 2016 respectively, with no success yet. WSDOT plans to reapply for TIGER grant again in 2017.

Pullman Airport Road Widening and Improvements

The existing Pullman Airport Road is a narrow and winding two lanes rural roadway with no shoulders. It has early spring weight restrictions placed on it to preserve the structural integrity of the road. It serves the regional airport as well as two major universities and developing commercial, industrial and residential lands.

Pullman Airport Road serves to relieve congestion on SR 270. It provided a detour route, in recent years, during construction activity on SR 270. During that effort, traffic volumes increased significantly, and subsequently retained a large amount of traffic, because many travelers became aware of the connection it provides.

Due to the growing importance of the Pullman Airport Road, Whitman County, in a joint effort with the City of Pullman, has developed a project that will reconstruct over five miles of the road, including realignment of nearly two miles. The project includes a wider roadway width with a two-way left-turn lane, shoulders, and sidewalks, as well as a structural base for year-round truck access to the airport. These features will significantly improve the roadway.

US 12 Road Widening in Clarkston

Traffic volume in Clarkston has grown over the years. All of US 12 within the City of Clarkston is a single lane in each direction, except the portion east of SR 129 as it approaches the Snake River. The stretch of US 12 from SR 128 (the Red Wolf Crossing Bridge on the Snake River) to Bridge Street needs further study to recommend mobility strategies for future improvement. The cost to widen to four lanes with a two-way center turn lane was estimated at $14.21 million to 19.23 million.

Town of Tekoa Truck Route

The City of Tekoa plans to build a dedicated truck route shifted an average 1- ½ blocks to the west of the current main street state route where SR 27 currently passes thru on Crosby Street. The State Highway enters the City on the north end and turns right on Crosby Street over a bridge

across Hangman Creek. Crosby Street then climbs a two tier incline of 14% to the center of the City thru the central business district. At the end of the business district the highway has a stop sign, turns right downhill to another stop sign. The highway then turns left and curves around to the west, crosses Hangman Creek again and climbs out of town towards Oakesdale. The City proposes to build a dedicate truck route that would branch off of SR 27 just after the north Hangman Creek bridge and build on the abandoned Union Pacific right-of-way at grade level thru an old industrial area and merge back into SR 27 just before crossing the south Hangman Creek bridge. This route will avoid the steep hills in the business district.

In addition to a few of the major projects mentioned previously, please see a detailed list of planned and conceptual regional projects on following pages:

List of Regionally Significant Projects

2017-2040

Transportation Improvement Projects for the Palouse RTPO

2017-40 Regional Planned/ Conceptual/ Transportation Improvement and Development Project list (Fiscally Unconstrained)

Covering Asotin, Garfield, Columbia and Whitman County

***Disclaimer** : The list identifies planned or conceptual project info for each agency and may subject to change as agency's priority changes*

Cost	
$	Up to $1 Million
$$	$1- $10 Million
$$$	$10-30 Million
$$$$	Over 30 Million

Time Frame	
Short	2017-30
Long	2031-2040

Agency Priority	Low	Med	High

ID	Agency	Project name	Project Description**	Mode Type	Cost*	Time Frame*	Agency Priority*
1	City of Pullman	South Bypass	Acquire right-of-way and construct a bypass around the south edge of Pullman from SR 195 to SR 270. A conceptual route study was completed in 2005. Portions of this bypass fall outside of the current City Limits within Whitman County.	Roadway-Arterial	$$$	Long	High
2	Whitman County/City of Pullman	North Bypass	Acquire existing SR 276 right-of-way and construct a bypass around the north edge of Pullman from SR 195 to Airport Road. The Northwest Ring Road concept may be incorporated with this project. Portions of this bypass would be in Whitman County, outside of the current City Limits.	Roadway-Arterial	$$$$	Short	Medium
3	City of Pullman	Golden Hills Drive extension	Complete construction of Golden Hills Drive on the west edge of Pullman, connecting from Davis Way south to Grand Avenue. This is anticipated to be completed as development occurs on this side of town. A study was prepared in 1998 to identify potential routes for Golden Hills Drive. Portions have already been constructed with development.	Roadway-Arterial	$$	Short	Medium
4	City of Pullman	Northwest Ring Road	Devlop and construct NW Ring Road	Roadway-Arterial	$$	Long	Low
5	City of Colfax	US 195 and SR 26 Intersection Modernization	State Route 26 meets US 195 in the City of Colfax. Two bridges cross the North Fork of the Palouse River at this location. One is on the spur of SR 26 and the other is on US 195. Bridge 26/2-SP was bult in 1938 and are currently deficient. Bridge 195/27 was constructed in 1931. The City of Colfax has expressed significant concerns with the condition of these bridges and the resultant impacts to their residents and those who travel through. It proposes to build a modern roundabout and replacing two bridges with one combined bridge.The closure of the sidewalk on the SR 26 bridge has created both an eyesore and a pedestrian safety concern for the City.	Roadway-Arterial	$$	Short	High
6	Town of Tekoa	Tekoa Truck Route Alternate	The State Highway enters the City on the north end and turns right on Crosby Street over a bridge across Hangman Creek. Crosby Street then climbs a two tier incline of 14% to the center of the City thru the central business district. At the end of the business district the highway has a stop sign, turns right downhill to another stop sign. The highway then turns left and curves around to the west, crosses Hangman Creek again and climbs out of town towards Oakesdale. The City proposes to build a dedicate truck route that would branch off of SR 27 just after the north Hangman Creek bridge and build on the abandoned Union Pacific right-of-way at grade level thru an old industrial area and merge back into SR 27 just before crossing the south Hangman Creek bridge. This route will avoid the steep hills in the business district.	Roadway-Arterial	$$	Long	Low
7	Colfax- Albion-Pullman (Efforts led by Pullman Civic Trust)	Colfax- Albion- Pullman (CAP) Trail	CAP trail is an ongoing effort by various active members of the region towards feasibility and planning of a regional trail system that can connect to said three cities and on to the other side of the Idaho state boundaries with Troy and Moscow. (For additional info: refer to CAP trail study completed in 2017)	Non Motorized trail	$$$	Long	--
8	Dayton- Waitsburg (Efforts led by Walla Walla Community Council)	Dayton- Waitsburg- Walla walla Trail	Blue mountain regional trail is an ongoing effort towards feasibility and planning of the regional trail system connecting Dayton- Waitsburg to Walla Walla and into Umatilla county. (For additional info, please refer to BMRT trail study completed in 2017)	Non Motorized trail	$$$	Long	--

Transportation Improvement Projects for the Palouse RTPO

2017-40 Regional Planned/ Conceptual/ Transportation Improvement and Development Project list (Fiscally Unconstrained)

Covering Asotin, Garfield, Columbia and Whitman County

***Disclaimer** : The list identifies planned or conceptual project info for each agency and may subject to change as agency's priority changes*

Cost	
$	Up to $1 Million
$$	$1- $10 Million
$$$	$10-30 Million
$$$$	Over 30 Million

Time Frame	
Short	2017-30
Long	2031-2040

Agency Priority	Low	Med	High

ID	Agency	Project name	Project Description**	Mode Type	Cost*	Time Frame*	Agency Priority*
1	Whitman County/ Pullman	North Pullman Bypass	Acquire, design, construct a 3-5 lane access route to north Pullman area along the SR276 Right of Way. Goal is to provide direct access to north pullman without impacting downtown corridor.	Road/path	$$$	Short	Medium
2	Whitman County	Johnson Road Upgrade	Connect paved portions of Johnson Road where gravel sections currently exist. Acquire, design construct 2 lane access road to south Pullman.	Roadway	$$	Short	Medium
3	Whitman County	Almota-Wawawai Connector Road	Connect Port of Almota with Wawawai Road/Clarkston/Lewiston. Acquire ROW, design, Construct 2 lane roadway.	Roadway	$$$$	Long	Low
4	Whitman County	Viola-Beeson-Estes Bypass	Construct paved connector road between Viola and Pullman to support business and commuter traffic to north side of Pullman. Current gravel road does not properly support the needs. Design and construct 2 lane paved road.	Roadway	$$	Short	Medium
5	Whitman County	Wawawai Road Upgrade	Connect paved portions of Wawawai Road where gravel sections currently exist. Acquire, design construct 2 lane access road connecting Wawawai-Pullman Road to Colton.	Roadway	$$	Long	Medium
6	Whitman County	Rosalia Underpass	Design mitigation for road hazards on freight route connecting Rosalia, Malden, Pine City with SR195. Design and construct mitigation that might include removal of historic John Wayne Trail Bridge, or mitigate for deterioration of the structure.	Roadway/trail	$$	Short	Medium
7	Whitman County	South Colfax Bypass	Acquire, design, construct a 2 lane access route to around Colfax, connecting SR195 to SR26 along the Prune Orchard-Duncan Springs-Colfax Airport Road alignments. Goal is to provide traffic relief from SR195 and downtown Colfax during high traffic times such as game days and student breaks.	Roadway	$$$	Long	High
8	Whitman County	Fairbanks Road Upgrade	Connect paved portions of Fairbanks Road where gravel sections currently exist. Acquire, design construct 2 lane access road connecting Highway 27 near Tekoa with SR195 at Rosalia.	Roadway	$$	Long	Medium
9	Whitman County	Uniontown East Resurfacing	Upgrade pavment surface on connetor road leading from Uniontown/Colton to the Idaho State line. Road provide an important link for goods and services between Idaho and Washington at this location. Currently the road is shut down to heavy loads for a portion of each year.	Roadway	$$	Short	Medium
10	Whitman County	Pullman Airport Road Reconstruction	Acquire, design, construct a 3 lane access route from the Idaho State Line to the Pullman City Limits providing access to the Airport, WSU, and north Pullman along the Pullman AIrport Road alignment.	Roadway/Bike path	$$	Short	High

Transportation Improvement Projects for the Palouse RTPO

2017-40 Regional Planned/ Conceptual/ Transportation Improvement and Development Project list (Fiscally Unconstrained)

Covering Asotin, Garfield, Columbia and Whitman County

***Disclaimer** : The list identifies planned or conceptual project info for each agency and may subject to change as agency's priority changes*

Cost	
$	Up to $1 Million
$$	$1- $10 Million
$$$	$10-30 Million
$$$$	Over 30 Million

Time Frame	
Short	2017-30
Long	2031-2040

Agency Priority	Low	Med	High

ID	Agency	Project name	Project Description**	Mode Type	Cost*	Time Frame*	Agency Priority*
1	Asotin Co.	Southway Bridge Resurfacing	Resurfacing of Southway Bridge deck	Roadway	$$	Short	Med
2	Asotin Co.	Critchfield - 129 Intersection	Address bike/ped safety concerns at Critchfield and Hwy 129	Roadway	$$	Short	Med
3	Asotin Co.	Clarkston Heights sidewalk infill	Install sidewalk/trails in areas deficient in pedestrian facilities	Roadway/Trail	$$$	Long	Low
4	Asotin Co.	Snake River Road Improvements	Improve Roadway geometrics and pave all deficient sections to Heller Bar	Roadway	$$$	Short/Long	Med
5	Asotin Co.	Wenatchee Creek Bridge Replacement	Replacement of single lane bridge over Wenatchee Creek	Roadway	$	Short	Med
6	Asotin Co.	Paving of Grande Rhonde Road	Pave remaining length of Grande Rhonde Road to state line	Roadway	$$	Short	Med
7	Asotin Co.	Paving of Peola Road	Pave remaining length of Peola Road to county line	Roadway	$$	Short	Low
8	Port of Clarkston	Freight Dock Improvements	To design, permit and construct improvements at the Port's freight dock	Multimode	$$	Long	Medium
9	Port of Clarkston	Bike/Pedestrian improvements - TP	To design, permit, and construct bike and pedestrian improvements at Turning Pointe Business Park	Non-motorized	$$	Long	Low
10	Port of Clarkston	Address non-dredging ways to address sediment build-up along Port of Clarkston shoreline	Identify and design non-dredging ways to address sediment build-up along Port of Clarkston shoreline	Multimode	$$	Short	High
11	Port of Clarkston	Address non-dredging ways to address sediment build-up along Port of Clarkston shoreline	Permit and construct non-dredging ways to address sediment build-up along Port of Clarkston shoreline	Multimode	$$$$	Long	Medium

Section XIII: Regional Transportation Plan Implementation

Palouse Regional Transportation Plan 2016-2040 is a tool and a blueprint for regional goals, policies, priorities and regionally significant projects until 2040. In the Palouse region, each jurisdiction is responsible for identifying, planning, programming and constructing any transportation projects within the scope of their responsibility. The RTPO has no specific authority to direct local transportation improvements goals and policies, however, it will assist local jurisdiction in conveying transportation funding resources, regulations and can provide other technical assistance as a regional transportation planning agency. Palouse RTPO receives Non-motorized project funding now known as Surface Transportation Block Grant- Set Aside (STBG-SA) funds through FAST Act, which is prioritized in a competitive regional application process throughout the region whenever the funds are available. The involvement of each jurisdiction in the RTPO (with the exception of WSDOT) is voluntary and consequently, the results of the regional planning process necessarily take the form of recommendations for consideration in each jurisdiction's overall program responsibilities.

Consequently, this tool can be used by those participating jurisdictions to assist them in programming efforts. For cities and counties, these recommendations should be viewed as positive options that recognize both their own needs as well as their neighbors and the region as a whole. The same perspective is true for WSDOT, with the additional consideration that state legislation requires the incorporation of these recommendations in WSDOT plans for transportation improvements on state routes within the region.

The regional plan shall only be implemented through a mutual agreement among all members of the RTPO. Implementation of the regional plan, following its adoption, will consist of the following elements:

- Consideration of regionally significant projects in city, county and WSDOT TIPs. This action should include scheduling and programming as appropriate within each jurisdiction.
- Action by the RTPO, and its member jurisdictions to seek and obtain alternative funding for regionally significant projects not fundable under normal programs and not programmed in the TIPs.

- Review of the inventory and formula data to verify accuracy and improve forecasted needs. Verification shall be an ongoing cooperative process involving appropriate members of the RTPO to ensure consistency with State and local guidelines.
- Continuation of a Public Involvement process that includes an open opportunity for review and comment on the scope and actions of the plan and allows for timely revision of relevant aspects of the document in conformance with State guidelines and the desires of member jurisdictions.

Amendments to the Regional Transportation Plan may be requested, at any time, by the public, the RTPO Technical Advisory Committee or the Regional Transportation Governing/Policy Board. The RTPO will consider amendments to the plan concurrently with its biennial review of the plan for concurrency and annual review of the TIPs of the participating jurisdictions.

The amendment process for the plan shall include timely (30 days) public notification to the region's newspapers in coordination with the Washington State Environmental Policy Act requirements for non-project actions.

Performance Monitoring

Performance monitoring should focus on the accuracy of the regional data and priorities compared to the jurisdictional application and the ability of the participants to access alternative funding sources to complete priority projects. It is projected that those actions incorporated into the ongoing regional planning process will accurately monitor the implementation of the Regional Transportation Plan and lead to the overall meeting of the significant transportation needs of the region.

Section XIV: Financial Plan and Resources

Regional Funding Capability

Rural area transportation project programming and responsibility for determining the application of funding for various transportation projects is significantly different from urban areas. In urban areas with a population over 50,000, a federally mandated Metropolitan Planning Organization performs such transportation programming and responsibility functions. However, in rural areas, there is no such federal mandate and individual counties and local jurisdictions are required to program for their own specific projects.

Each jurisdiction in the region funds its projects through a variety of sources. Often the source of funding is determined by the type of the project. According to WSDOT various funding sources available for 2015-16 are listed below. While some funding sources are directly allocated each year and thereby generally predictable, most sources, particularly those administered to WSDOT for state highways have no direct allocation and must be "earned" or justified project-by-project on a statewide or district-wide basis. These funds are available either by direct competition or through a prioritization method established by the administering jurisdiction. Consequently, development of funding capability forecasts for regional projects will be best focused on each participating jurisdiction's six-year Transportation Improvement Program (TIP). The programming document required by WSDOT and the Federal Highway Administration shows how and where state and federal funds are to be spent.

The top priority of the region is to maintain existing roadways, performing routine resurfacing and patching, snow removal, etc., as necessary. A relatively small amount of funding will be spent on major capital improvements such as roadway reconstruction or additions to the roadway network through the widening of existing roads or new facilities.

This intent of this section is to create a comprehensive list of transportation funding sources applicable to the Palouse region, analyze the revenue potential of the primary funding sources, and make recommendations to Palouse jurisdictions about the best ways to generate transportation funding in the future. Not all of the identified mechanisms are available or viable in this region due to limited tax revenue, lack of matching dollars for grants, and low populations.

The following funding sources were identified as local funding sources for the statewide projects.

- WSDOT
    - Pedestrian and Bicycle Safety
    - Safe Routes to School
    - Highway Safety Improvement (HSIP) Program
    - Transportation Alternative Program (now STBG-SA, after FAST ACT, program is Funded by the Palouse RTPO)
    - Congestion, Mitigation and Air Quality program (CMAQ)
    - National Highway Performance Program
    - Surface Transportation Program (now STBG, after FAST Act)
    - Freight Rail Assistance Program
    - Freight Rail Investment Bank Program
    - Airport aid grants program
    - Commute Trip Reduction Program
    - Vanpool Investment program
    - Regional Mobility Grants
    - Public Transportation Program
    - Consolidated Grants Program
- WA State Recreation and Conservative Office
    - Land and water conservation fund
    - Washington Wildlife Recreation program
    - Salmon Recovery grants
- WA State Department of Commerce
    - Public Works Board, Construction Loan Program
    - Community Economic Revitalization Board (CERB)
- Freight Mobility Strategic Investment Board

- County Road Administration Board
    - County Ferry Capital Improvement program
    - Rural Arterial Program
    - County Arterial Preservation program
- Transportation Improvement Board
    - Small City Sidewalk Program
    - Small City Arterial Program
    - Small City Preservation Program
    - Arterial Preservation Program
    - Urban Sidewalk Program
    - Urban Arterial Program
    - Relight WA program
    - Complete Streets Program
- Other State and Federal Funding Sources
    - Federal Lands Access Program
    - County Road Property Tax Levy (RCW 36.82.040)
    - High Capacity Transit (RCW 81.104.140.170)
    - High Occupancy Vehicle (HOV) Local option (RCW 81.100.030.060)
    - Local Fuel Tax Distribution (RCW 82.36.025.030)
    - Commercial Parking (RCW 82.80.030)
    - County Fuel Tax (RCW 82.080.010)
    - Passenger-only Ferry (RCW 82.80.130)
    - Vehicle License Fee (RCW 82.80.100)
    - Land Dedication and Voluntary Agreements (RCW 58.17.010.110)
    - SEPA Substantive Authority (RCW 43.21C.060)
    - Growth Management Act Impact Fee (RCW 82.02.020)

- Transportation Benefit District (RCW 36.73)
- Street Latecomer Agreements (RCW 35.72)
- Transit Tax (RCW 35.95.040, RCW 82.14.045)
- Grade Crossing Protective Fund (RCW 81.53.261.295)
- Border Cities Fuel Tax (RCW 82.47.020)
- Local Transportation Act (LTA) Fee (RCW 39.92.030)

Application of Future Funding to Needs

There are clear distinctions in both the type of project necessary and the extent of work applied to each project. Typically, the vast majority of all projects are limited to maintenance for both state and county roads. Those projects normally consist of patching, oiling or chip seal coating. Periodically for state routes and more rarely on county roads, cold or hot mix resurfacing projects are done.

Further complicating the funding issue are the varying sets of construction standards and regulations that apply to different federal, state and local projects. As an example, while federal funding may be more readily available for state and county projects, the extensive list of federal project standards and conditions tend to drive project costs significantly higher than state or locally funded projects. As a result, the cost of any given project, regardless of priority, may range different for per mile construction depending on source of funding.

Another consideration in funding a given project is the determination of when the project is required. A project with high regional priority may not receive the same ranking from the responsible jurisdiction, therefore, a regional project with a high regional priority may not be constructed as early as a regional project with a lower regional priority. These conditions again point to the programming jurisdiction as the key factor in determining the specifics of how and when funding may be sought for from various sources for any given project. A few of the major transportation funding sources available to our region are listed below as well. The process for obtaining state funding is highly competitive.

Expected Revenues

To program funds for projects, local jurisdictions and the RTPO must have an indication of expected revenues. This may be determined from experience or through written notice of a grant

approval. Appendix J shows the 24 year projected transportation revenue forecast by jurisdiction. Assuming similar future federal apportionments, the estimated annual revenue for counties in the Palouse region will remain the same for planning purposes.

Table 25 Palouse Region- Expected 24 Years Revenue Forecast

Funding Type	Asotin County	Asotin Cities	Columbia County	Columbia Cities
Property Tax	34,206,880	14,176,410	25,992,355	1,421,531
State Motor Fuel Tax	50,549,196	4,848,372	45,766,948	1,528,385
Federal Revenues	6,403,416	0	19,703,689	0
Base Total	91,159,493	19,024,782	91,462,991	2,949,915
General Fund Appropriations	1,960,438	9,356,792	3,201,237	249,880
Other Local Receipts	1,583,710	1,079,648	1,963,759	3,257,109
Other State Funds	6,392,177	1176270.24	8,662,087	1,933,659
Total Estimate	101,095,818	30,637,491	105,290,075	8,390,563
Total for Asotin and Columbia			245,413,947	

Funding Type	Garfield County	Garfield Cities	Whitman County	Whitman Cities
Property Tax	18,601,238	0	61,213,240	13,224,592
State Motor Fuel Tax	40,483,975	804,245	133,118,887	21,444,916
Federal Revenues	10,856,547	0	42,630,716	2,353,240
Base Total	69,941,760	804,245	236,962,843	37,021,748
General Fund Appropriations	1,645,922	2648583.6	519,087	6,241,065
Other Local Receipts	584,978	209,569	3,657,568	18,147,035
Other State Funds	8,142,430	843727.74	15,651,338	16,368,522
Total Estimate	80,315,090	4,506,126	256,790,836	77,778,369
Total for Garfield and Whitman			419,390,421	

- Forecasts of Revenue are based on historical revenues spent on transportation expenditures during the period 2006 - 2016. Data by WSDOT OFM.
- See Appendix J for more detailed Information

Regional Project Recommendations

The projects submitted to the Palouse RTPO each year under this plan are evaluated with its importance to the region and agency based on their regional significance before they were added in this plan. Please see Appendix L for the Palouse Regional Transportation Improvement

Programs (TIP) 2018-23. (Appendix L is updated either annually/biannually as needed, and retained on file with the PRTPO).

The Palouse RTPO has determined that each agency's TIPs, when developed consistent with this plan, will represent the member's projects that have regional implications and will result in the best use of limited funds on projects of regional significance for the good of the region. Member agencies are encouraged to share their TIPs with adjacent member agency's so cross-jurisdictional coordination and planning may occur within the Palouse RTPO area. (As permitted, six-year TIPs may include additional projects for planning purposes even if funding is not being requested.)

This plan is a tool recommended to be used by those participating jurisdictions to assist them in developing six-year TIPs that consider at a minimum the common regional transportation goals, policies, and objectives that make up this regional planning effort. For cities and counties, this recommendation should be viewed, as a positive option that recognizes their own needs as well as their neighbors and the region as a whole. The same perspective is true for WSDOT with additional consideration that state legislation requires incorporation of these recommendations into WSDOT plans for transportation improvements on state routes within the region.

The regional plan shall be implemented through mutual agreement of all members of the RTPO.

Identification of Alternative Solutions

It is recognized that some regionally prioritized needs will be difficult to program. In these cases, consideration of alternative sources of funding (from the table above) or another means of meeting those needs must be found. Each unfunded project, by priority, should be carefully evaluated to identify any specific features that could be funded by special grants or programs and those sources should be pursued by both the responsible jurisdiction and the RTPO to obtain available funding. These include the enhancement, statewide and safety elements of the Surface Transportation Program of the federal Transportation Equity Act for the 21st Century (TEA 21).

The MAP-21 program has been replaced by FAST-ACT, which was approved by the legislature in 2016, and stands for "Fixing America's Surface Transportation Act". These are funds that were set aside for transportation needs for 2016-2021.

For projects that are related to non-motorized transportation or to increase access to public transportation, the RTPO may consider them under the TAP (Transportation Alternative Program) now called Surface Transportation Block Grant-Set Aside (STBG-SA) grants, which are federal funds that are provided by the state. These funds are allocated based on the population base for

the region; Palouse RTPO does not receive a significant amount, but it has been enough to complete or begin a few small to medium scale projects in the region. Such projects have been constructing a sidewalk, safety projects for pedestrians, pedestrian signals, and various other non-motorized projects.

A further alternative is to identify common project needs by type and work to promote the creation of a program element to address the specific need. An example of this alternative can be seen in the most recent development of the Rural Economic Diversification Support Program promoted by the RTPO, Member County, and WSDOT, to address the severe economic hardships brought on rural communities when essential freight routes are closed due to seasonal conditions.

All alternatives should be considered, and the most viable should be vigorously pursued to the successful resolution of the need. Some alternatives may not appear to meet the apparent need, but should be evaluated until its application is shown to be inapplicable.