

Region's Key Issues

The region has its own unique need for the movement of freight and people for economic reasons, 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 abandonments 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 road. Also, the geometrics of some roadways do not provide the appropriate widths for trucks to safely 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, but many also overlap into multiple statewide issue areas.

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 earlier. 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.



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. The 2007 WTP reported that 16% of city roadways have poor or very poor pavement condition. This percentage will continue to grow as current funding levels remain constant or lose their purchasing power.

As identified earlier in Table 4, nearly 75% of the roadways in the Palouse Region are gravel or unpaved. Among these roadways 18% 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 is 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 are 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 County Engineers and elected leaders 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 effects 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 safety deficiencies exist. Because of the topography of the region, many of the roadways have frequent horizontal and vertical alignment changes as they bend around the 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 can save lives as evidenced in the pictures below. Discussions with regional engineers revealed that installation of guardrails does increase maintenance budgets that are already stretched to meet existing demands.



It should be noted that as the number of recreational visitors to the region that are unfamiliar with the roadways poses an added safety concern. Travelers that are familiar with the roadways are aware of deficiencies and drive accordingly.

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 2007 WTP (pg 17) "significant emphasis is placed on roadway design at all jurisdictional levels statewide, resulting in

projects that reduce fatalities and disabling injuries caused by collision. Emphasis is also placed on improving regulation, increasing interagency collaboration, and promoting ongoing research aimed at finding ways to make our transportation system safer.” Safety issues are discussed in more detail in a subsequent chapter of the RTP as well. Table 10 shows the number of accidents that have occurred in the Palouse region from 2006 - 2008.

Table 10. Accident Summary

Asotin	2006		2007		2008		Total	
	Collision	Fatality	Collision	Fatality	Collision	Fatality	Collision	Fatality
Combined Cities	56	-	52	-	48	-	156	-
County Road	58	-	49	-	55	-	162	-
State Road	79	-	62	-	70	-	211	-
Total	195	-	163	-	173	-	531	-
Columbia								
Combined Cities	5	-	10	-	12	-	27	-
County Road	27	-	22	1	20	1	69	2
State Road	39	-	46	-	46	1	131	1
Total	80	-	88	1	79	2	247	3
Garfield								
Combined Cities	1	-	-	-	1	-	2	-
County Road	10	-	11	-	8	-	29	-
State Road	40	-	34	1	33	2	107	3
Total	51	-	45	1	42	2	138	3
Whitman								
Combined Cities	189	-	208	-	209	1	606	1
County Road	114	2	103	2	79	3	296	7
State Road	353	9	381	4	388	6	1,122	19
Total	656	11	692	6	676	10	2,024	27

Note: Whitman County Combined City Accidents also include Misc. Trafficway Accidents located in Pullman

High Risk Safety 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 which have a high accident rates the following issues from the WTP (pg. 19) should be considered when making improvements to these roadways.

Roadway safety projects may focus on the following types of improvements:

- Reducing head-on and across-median crashes
- Improving design and operation of highway intersections
- 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.

There are several intersections in the region that have poor sight distances and adverse approach angles making it difficult for trucks to turn onto main highways safely. 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.” (WTP pg 17) 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 accesses to US 12 also require 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 places 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 (pg 24). As an agricultural based region, the freight and goods transportation system is used to transport produce off of the 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 regions transportation system is the yearly closure of much of the regions County road system to loaded truck traffic. 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 the first winter. The extent of the Freight and Goods Transportation System that is impacted by season weight restrictions is shown in Figure 2.

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 is limited by the inadequate roadway system.

One of the major goals of the transportation planners and engineers in the region is to secure increased funding for reconstruction of a number of specific routes of regional significance to

be “all-weather” travel by loaded trucks. If this goal can be realized, the local shipping of grains and other products would positively impact the local economy.

In 2007 the Palouse Regional Transportation Planning Organization contracted to have a Regional Freight Study prepared. The study evaluated the transportation network with respect to the movement of freight on roadways, by rail, through barges on the river and at airports. Lane width deficiencies were identified on nine state highway facilities in the region. A list of county roadways which are the highest priority to upgrade to structurally be able to handle heavy truck traffic year round without weight restrictions was included.

Asotin County

- Peola Road
- Troy/Grand Ronde River Road
- East/West Mountain Road
- Snake River Road
- Joseph Creek Road
- Cloverland Road

Columbia County

- Kellogg Road
- Alto Road
- Smith hollow Road
- Tucannon River Road
- Mountain Road/Mill Road
- Turner Road
- McGee Road
- Lewis Gulch Road

Garfield County

- Peola Road
- Gould City-Mayville Road
- Meadow Creek Road
- Mountain Road
- Bell Plain Road

Whitman County

- Pullman Airport Road
- Almota Road and SR 194 to the Port of Almota
- Sommers Road
- Upper Union Flat Road
- Belmont-Farmington Road
- Green Hollow Road

The Regional Freight Study indicated that more investigation is warranted, to uncover more roadway segments subject to heavy freight volumes that have gone undetected as yet. Area experts suspect such an effort would lead to an increase in the number of miles of FGTS classified roads, such as classifying the Peola and/or Cloverland roads as T-5 Routes in Asotin County.

In addition to those roadways identified in the Regional Freight Study above, the following roadways in Whitman County were identified through the public involvement portion of the RTP planning process.

- Hume Road (Oakesdale to SR 195 north of Colfax) - Reconstruction
- Uniontown East (Uniontown to Idaho State line) - Structural Overlay to all weather (regional connect SR 195 to SR 95)
- Endicott Road (SR 26 to Adams County line) - Structural Overlay from SR 26 to west of Diamond; Reconstruct Endicott from west of Diamond to Adams County line.
- Thorn Creek Road (Pine City to SR 195) - Structural overlay to all weather, (freight route)
- Wawawai Road (SR 194 all the way to Red Wolf Bridge at Clarkston) - Structural overlay to all weather
- Several "missing links": Wawawai Road (Colton to Grade), Johnson Road (Colton to Staley), Upper Union Flat Road (Almota to Hamilton Hill), Fairbanks Road (Tekoa to Seabury Road) - pave existing gravel roads

Sub-Standard Roadways

Many roadways within the region are currently sub-standard to current design standards for the region. The need to improve these roadways is constantly increasing as the need for freight and agricultural product 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 even bridge structures has resulted from oversized farm equipment. Large trucks are also bringing in 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 the current roadway standard 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. Sub standard roads with respect to narrow lanes and no shoulders is a significant safety issue and is discussed in more detail in a later chapter.

Funding

Funding for transportation improvements is a huge issue throughout the region, state and nation. As mentioned in the Maintenance section above, timing of improvements is important to achieve the lowest life-cycle costs for maintenance. If maintenance activities are deferred, then what could have been a relatively low cost activity becomes a much higher cost preservation need or in some cases 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 3% of the increase has reached the cities and counties for roadway maintenance, preservation and construction efforts. In fact, more fuel efficient cars, electric cars and people driving less has lead to revenues from the motor fuel tax not keeping up with inflation. In 2009 total fuel consumption actually declined from the previous year.

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 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 TIB has been significantly reduced in recent years.

Cities can not treat roads as a utility and collect fees for such. 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 the Federal Legislation nearly to the amount of the authorized limitations.
- Statewide competitiveness often make 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 of carrying agricultural products to the worldwide market.
- Continually increasing administrative requirements make federal funds very difficult and costly to use.

Pullman Bypass

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. Although several by-pass alternatives for the City of Colfax 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 195 through the city. Many of these improvements have been carried out.

Four Pullman by-pass alternatives were evaluated in the 1994 Advance Planning Study as well, two north of Pullman (one of which was identified earlier in the late 1960's and early 1970's for which the right-of way was purchased) and two south of Pullman. 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 1994 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, Port of Whitman and Washington State University had, at the time, expressed an interest in taking the lead to 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 felt that engineering work on this phased approach could be performed with plans to accommodate future expansion by WSDOT to a four-lane facility.

With increase 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. Generally from the intersection of SR 195 and SR 27 to various location along SR 270. Three route alternatives were identified with Alternative B being preferred. 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-way. 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 By Pass Routes, WSDOT has reevaluated the Route Development Plan for the North Pullman By Pass in 2007. The purpose of this RDP is to address potential crossings not identified in the original access report, and potential interim surface arterials and utilities within the SR 276 corridor.

The Washington State Highway System Plan (2003 - 2022) identifies the Pullman By-Pass (proposed SR 276) as the investment alternative for mobility strategies to address congestion issues on the state highways in Pullman. The estimated cost as reported in the WSHSP ranges from \$79.04 million to 106.94 million.

Pullman Airport Road

The existing Pullman Airport Road is a narrow and winding two lane country 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, in fact, it provided a detour route in recent years during SR 270 construction activities. During that effort traffic volumes increased significantly and subsequently retained a large amount of traffic



because many travelers became more aware of the connection it provides.

Due to the deficiencies and 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 5 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 reduce the number of accidents.

Fleshman Way/SR 129 Interchange

The Fleshman Way/SR129 Interchange project has been on Asotin County's 6-year TIP for a number of years and continues to be unfunded. This regionally significant project is a key connector between states, provides freight access and also provides direct access to the Nez Perce County Regional Airport. The interchange carries about 25,000 vehicles per day. Some of the major turning movements on the interchange are cross-turning and currently operate below LOS D, and there are a significant number of yearly accidents because of this. The project has undergone a significant public process to determine the appropriate interchange reconfiguration that will address both congestion and accident issues as well as bicycle/ pedestrian access. Design is underway, with an unfunded construction cost estimate of \$8-10 million.



Existing



Proposed

US 12 in Clarkston

Traffic volumes in Clarkston have grown over the years. All of US 12 within the City of Clarkston carries just a single lane in each direction, except the portion east of SR 129 as it approaches the Snake River. The 2003 Washington State Highway System Plan identified the stretch of US 12 from SR 128 (the Red Wolf Crossing of the Snake River) to Bridge Street as needing further study to recommend mobility strategies for future improvement. The cost to widen to 4 lanes with a two-way center turn lane was estimated at \$14.21 million to 19.23 million.

Railroads

In the 1950s Washington had approximately 5,000 miles of railroad; today that number is down to around 3,100. Over time, the larger carriers have pared 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. Today the region has just over 500 miles of rail line, however, 53% of the line have been abandoned and are no longer used for service.

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 a vicious cycle as described in the [Washington State Freight Rail Plan](#), pp. 2-15. 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 operation 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 website.)



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

- shipping by rail is cheaper than by truck
- rail reduces the number of trucks on the roadway system which reduces congestion and fuel consumption and improves air quality
- 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

A detailed study of *Eastern Washington Grain-Hauling Short Line Railroads* was performed for WSDOT in 2003 to analyze the economic viability of the PCC and to value the public benefits of preserving the PCC system. The study determined that, in private ownership, the system is not self sustaining and is highly susceptible to abandonment. Among other things, the study found that preserving this rail system keeps more than 29,000 heavy truckloads per year off state and county roadways (in 2009 actual truckloads removed from roadways by PCC was 51,000), and that over the long-term the annualized net public benefits of avoided highway truck damage are \$4.16 million. Other benefits of the rail line include \$6.4 million of wages and benefits in affected rail dependent industries that could be lost and \$11.1 million WSDOT supports the placing of this rail line in public ownership.

As part of the State of Washington's interest in maintaining and improving economic viability, the State Legislature appropriated \$7.35 million in funds for WSDOT to acquire and rehabilitate the Palouse and Coulee City Railroad (PCC). These nearly 400 miles of rail line provide most of the local rail service for rural eastern Washington. Today this rail line is owned by WSDOT who oversees the operator's compliance with regulatory requirements and provides continued maintenance and preservation to the rail lines. The management of the business and economic development aspects of the operating leases is done by the PCC Rail Authority.

The Washington State legislature also budgeted \$5.3 million for a PCC South Subdivision rehabilitation project on the Port of Columbia-owned short line with the purpose of improving the viability of the operator. Unfortunately, budget cuts in 2009 removed this project from the state's capital budget. Small rehabilitation projects, such as public crossing repair in 2009, and a bridge repair and tie replacement project in 2010, have been funded by the state in the interim. It is important that this rehabilitation project be put back on the state's list of projects as soon as funding is available.

The Port of Columbia conducted a rail assessment in 2008 that showed 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 hauling freight. As rail travel times diminish due to poor track condition and resulting slow operating speeds, rail costs go up and become uncompetitive. Retaining rail as an option helps to provide competition among freight hauling modes. Improvements to the rail line in Dayton should be investigated as well. 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 rail is increased several fold.

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. And once rail lines are removed and the rights of way lost, getting them back is nearly impossible. Preservation of the rail we have is important.

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

Vitality and Importance 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 RTPO region. Because of said Act, the Sockeye and Chinook Salmon have been declared endangered species in the Snake/Columbia River system. The above prospective will cause significantly more truck traffic moving on roads not adequate for such weights and volumes, and mixing with automobiles and buses to an extent that has not been experienced before. Not insignificant is the contribution that these dams make to the production of electricity for the western United States that would be impacted by the breaching of 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 impacts to Sockeye and Chinook Salmon migrations
- Other methods to improve salmon passage at the dams
- Impacts of a river drawdown on the transportation of grains
- Impacts of a river drawdown on energy consumption and Environmental Emissions
- Impacts 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 Snake and Clearwater Rivers above Lewiston, Idaho over several years has begun to leave it's mark. Much of this silt has built up behind the 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. Even a cruise ship got stuck. 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 within six months of the dredging. Three out of the four port facilities in the Lewiston-Clarkston area are influenced by the silting. 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 depth at least at the 14' Corp of Engineers standard operating pool levels and 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 = 37.5 hopper rail cars
- 1 barge = 150 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 truck loads 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 will be undertaken on the Lower Monumental Dam and other dams on the Columbia Snake River system which will cause an "extended outage" for 14 weeks beginning in December 2010. Even though this effort has been planned for several years, the outage will still cause some degree of hardship. The Columbia Snake River system is the top export gateway for US wheat. The Pacific Northwest Waterways Association estimates that \$1.5 - \$2 Billion of cargo moves on the river system in a typical year, with approximately 20% during the period of the outage. Grain growers could 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 the downtown and to the rivers is an important need for future consideration in Asotin County. Of particular concern is the lack of bicycle/pedestrian connections or crossings of US 12 and SR 129 that make access to the levy trail system difficult. Roadways and development needs to be bicycle friendly.

Dayton is getting more and more tourists. An off-road pathway connecting Dayton and Waitsburg should be considered; this could be constructed in two phases, the first extending from Dayton to the Lewis Clark State Park. 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 improvements to accommodate bicycle/pedestrian movements. Any improvements should carefully consider the existing architecturally pleasing features.

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 that roadway is not well suited to bicycle travel in that it has narrow lanes and no shoulders (the map indicates that many of the rides are under such conditions).

In Whitman County it was noted that the trail connection from west of Pullman to Troy, Idaho is nearly complete. The following planning considerations were instrumental:

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

Transit Service

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 Human Services Transportation Plan for the Palouse is underway concurrently with 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

- Sustained existing services
- Information sharing/promotion (local & regional)
- Ongoing coordination between transit and human service providers
- Non-Medicaid medical trips (long distance)
- Connections outside of region, especially into Idaho

Asotin County

- Evening and weekend service
- Education on available services (travel training)

Columbia County

- Transportation to Clarkston
- Continued/regular Saturday service

Garfield County

- Improved sidewalks at key boarding/dropoff location
- Service after 2 pm
- Small vehicle to support 1 to 2 person (long distance) trips

Whitman County

- Service to outlying communities
- Sustained Sr. Services outside of WSU schedule

Solutions

Region wide

- Regular (quarterly) coordination meetings
- Mobility Management (elements of)
 - Ridematching (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 ACCT and other State-level presentations
- Secure transportation enhancement dollars for supportive infrastructure

Airports

Airports are part of the Washington State multi-modal transportation system and serve as an essential public facility. There are four key issues with respect to 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 and the Lewiston Nez Perce County airport. Economy of scale issues with commercial air service were discussed, recognizing that prices are always higher in lower volume markets. There have been discussions in the past that have centered on the possibility of combining the two so as to provide better service at improved prices for travelers. Clearly many issues surround this discussion. Some believe that more favorable weather patterns for aircraft landing and departing in Lewiston would lend itself to a regional airport at that location.

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 \$21 million of pavement and safety needs anticipated at the regions 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 generation of obstructions to visibility such as smoke or dust. Incompatible land uses can include residential, commercial and 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 them to identify future needs and potential future nearby incompatible land uses and to be eligible for potential state funding for improvements.

Based on available information from Airport Layout Plans Capital Improvement Project (CIP) needs were developed for the Palouse region airports, from 2010 - 2016. Table 11 (shown on the following page) depicts an estimate of the CIP needs for the Palouse airports. Of particular note is the addition of two runways at the Pullman-Moscow Regional Airport. Not included in the CIP table is 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

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 stormwater associated with transportation system elements. This increased effort has 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 be 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.

Other Issues

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

- Issues Identified for future studies
 - Improve access to the 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
 - Freight Routes and Modes to the Snake River
 - Pomeroy
- US-12 Route Development Plan
- SR-129 Route Development Plan
- Wawawai Road Extension
- SR 230 - new State Route connecting Lamont to I-90
- Roadways Traversing Snake River Dams
- Mobility Improvements

Table 11. Airport Capitol Improvement Program

Airport	Year	Total	Federal	State	Local	Project
Little Goose						
Lower Granite						
Pullman-Moscow Regional	2011	\$3,150,000	\$3,000,000	\$75,000	\$75,000	Rehabilitate Runway
	2012	\$1,090,000	\$1,002,000	\$44,000	\$44,000	Construct/Expand/Rehabilitate Service Road, Conduct Environmental Assessment or Update, Apron Rehabilitation
	2013	\$825,000	\$785,000	\$20,000	\$20,000	Acquire Interactive Training System Equipment, Acquire Land/Easement for Development
	2014	\$14,800,000	\$14,095,000	\$352,500	\$352,500	Rehabilitate Taxiway, Construct Runway
	2015	\$14,700,000	\$14,000,000	\$350,000	\$350,000	Construct Runway
	2016	\$14,700,000	\$14,000,000	\$350,000	\$350,000	Construct Runway
Rogersburg						
Rosalia Municipal	2010	\$35,000	\$33,250	\$875	\$875	Apron Rehabilitation Design
	2011	\$262,800	\$249,660	\$6,570	\$6,570	Apron Rehabilitation, Light/Mark/Remove Obstructions, Install/Rehabilitate Airport Beacon
	2012	\$0				
	2013	\$150,000	\$142,500	\$3,750	\$3,750	Runway Maintenance, Taxiway Maintenance, Apron Maintenance
	2014	\$150,000	\$142,500	\$3,750	\$3,750	Construct/Expand/Rehabilitate Hangars
	2015	\$21,800	\$20,710	\$545	\$545	Acquire Land/Easements for Approaches
Port of Whitman Business Air Center	2011	\$600,918	\$570,872	\$15,024	\$15,024	Install Runway Lighting, Construct/Extend/Improve Runway Safety Area, Install Vertical Visual Guidance System
	2015	\$1,045,880	\$993,585	\$26,148	\$26,148	Rehabilitate Runway, Rehabilitate Taxiway, Construct Apron
Willard Field						
Total Needs 2010-2013		\$6,113,718	\$5,783,282	\$165,219	\$165,219	
Total Needs 2014-2016		\$45,267,680	\$29,014,295	\$726,693	\$726,693	