

Palouse Regional Transportation Plan

2005 Addendum

Prepared for:

Palouse
Regional Transportation Planning Organization

Prepared by:



J-U-B ENGINEERS, Inc.

ENGINEERS, PLANNERS, SURVEYORS

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Executive Summary

This document is intended to be used in conjunction with the 2004 Palouse Regional Transportation Plan.

In 2004 the Palouse Regional Transportation Planning Organization (PRTPO) contracted with JUB Engineers, Inc. to assist in the preparation of a Regional Transportation Plan (RTP). The previous RTP was several years old and Whitman County had been added to the region in 2003.

The 2004 RTP process included involvement with elected officials and staff from each of the counties as well as the combined PRTPO Board. The RTP product was accepted in June, 2004 and later adopted. Components of the RTP include:

- Updated Goals and Policies.
- Land Use Assumptions
- Multi Modal Transportation System Elements - roadways, rivers, rail, airports, non-motorized modes and transit
- Discussion of the Region's Key Issues
- Current and Future Deficiencies
- Financial Plan
- Implementation

In the fall of 2004, the PRTPO Board desired that additional discussion be developed regarding:

- Identifying longer range needs and issues
- Correlating the Region's Key Issues with Statewide Issues
- Evaluating pavement maintenance issue in more detail

Specifically, due to the fact that county engineers have traditionally looked at funding programs 6 years into the future, it was felt important that a longer term look at issues be undertaken to ensure that potential problems were identified. A correlation of regional issues (those previously documented as well as longer-range issues identified through this effort) to Statewide Issues being documented through the Washington Transportation Plan will also be prepared.

Also desired was a more detailed evaluation of recent expenditures for the maintenance of pavement compared to expenditures that might be anticipated to minimize life-cycle costs or provide "best practices" pavement management.

Long-Range Issues

Meetings were held in each county to identify issues facing the region beyond those normally presented in six-year transportation programs. Detailed herein are specific projects and studies which address possible improvements regarding improved access and safety, mobility improvements, freight, transit and bicycle/pedestrian facilities, etc. for each county.

Correlation of Region's Key Issues with Statewide Issues

The Washington State Department of Transportation is currently in the process of developing a Washington Transportation Plan (WTP). The 2004 Palouse Regional Transportation Plan (RTP) discussed a number of regional issues. The Correlation section of the Addendum presents a summary of statewide issues along with Table 1 (page 15) that provides a correlation of regional issues discussed in the 2004 RTP as well as longer-range issues identified through the meetings held as part of this effort.

Pavement Maintenance/Preservation

Roadway network components are defined for each county in order to understand the magnitude of the task of providing an operable transportation system. This section describes the importance of Pavement Management Systems. With good pavement condition data, wise decisions on the best use of available funds can be made. It must be made clear that efforts to maintain paved roadways while they are in fair to good condition provide the best cost to benefit ratio when compared with the cost of reconstructing roadways that have not been well maintained. Failure to maintain pavement results in a roadway that deteriorates quicker and costs many times more to repair over the life of the pavement.

Expenditures on roadway maintenance for the last 5 years are summarized in Table 6 (page 24). Considerable funding is required in order to perform routine maintenance activities, between \$1.2 million and \$3.7 million per county annually. Significant amounts of these funds are spent to maintain dirt and gravel roads which serve a vital function within each county.

Table 6 indicates only the expenditures on typical routine maintenance activities, 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 priority order.

Arterial pavement preservation activities primarily include chip sealing and provide the best benefit when performed every 5 to 7 years. Table 7 (page 26) shows the historical expenditures by county to preserve arterial pavement and what they have been able to accomplish with funds spent. Two key observations are made:

- Expenditures for some counties are sporadic, probably more indicative of grant funds received to perform preservation activities. As important as preservation activities are, maintenance activities generally take a higher priority.
- Over the last 6 years the percentage of arterial roadway pavements that have been treated ranges from 27% in Whitman County to over 120% in Columbia County. This is an important number because 85% to 120% of paved surfaces should have been treated in 6 years in order to minimize preservation costs and maximize useful life.

Clearly the available funding to preserve pavements in some counties is inadequate to meet the need. In the not so distant future many roadways that have not received

preservation treatment will be beyond possible preservation and require total reconstruction. This will involve substantial investment in order to keep important roadways from deteriorating to a point where they either need to be reconstructed for millions of dollars per mile, or are left to revert to gravel.

Although there have been some increases in revenue for counties to take care of their roadway network, the cost of maintenance and preservation has risen even quicker. It is clear that current funding sources are inadequate.

The following statements, included in Appendix C as part of the Washington Transportation Plan, provide a well documented summary of concerns for county roadways:

- County road levy and the current share of the gas tax cannot meet current funding needs.
- Most rural counties do not have an adequate tax base to fund general government needs let alone local transportation improvements.
- Local options cannot generate enough funds to provide for construction maintenance and preservation programs.
- Recent statewide initiatives have repealed local transportation funding tools.
- The current state funding programs through WSDOT, TIB and CRAB are not keeping up with the need.
- Counties are trying to balance competing needs between safety, preservation and maintenance and falling short on all three.
- Additional funding should be flexible enough to allow local elected and professional staffs to manage diverse demands.

Long-Range Issues

Process of Determining Long Range Transportation Issues/Needs

In April, 2005 separate workshops were held in each of the four counties. Elected county officials were invited along with other stakeholders representing various interests including: cities, the Washington State Department of Transportation, Chambers of Commerce, Port Districts, transit, airports, trucking companies, school districts, large employers and others. A list of attendees is included in the Appendix A.

Each workshop was similar in format, with the project team and the PRTPO Executive Director explaining the purpose of the meeting and providing appropriate background. Initially several questions were posed to help the group envision what the next twenty years might bring, regardless of transportation issues. It was explained that the questions were not transportation related, but that the results would help the group to determine what transportation improvements might be needed in order to achieve the vision created; or at a minimum reduce the potential that transportation barriers would limit the ability to bring about the vision created. Questions included:

- What might life be like in your community in twenty years?
- What would you like life to be like in your community in twenty years?
- What kinds of jobs will your children and grand children have if they stay in your community?
- What kinds of activities are anticipated in the region?
- What might "the downtown core" look like?
- What will the Port look like?
- What will be the major economic engines for the region?

After substantial discussion of these and other questions, each of the modes of transportation were discussed, focusing on issues that would need to be considered and addressed during the next several years in order to accomplish the vision. Notes on large poster paper were kept throughout the workshop. Transcribed versions of these notes are included in Appendix B. The sections below summarize the issues and projects identified during the discussions in each county, in no particular priority order.

Asotin County

Several different projects, unspecified improvements and issues were discussed within Asotin County. Improvements outside of the county were also mentioned. The issues were grouped into the seven major categories presented below, in no particular priority order.

Snake River

The Snake River needs to be dredged to the federally approved depth in order to maintain the viability of river transport, promote competition, and preserve the ability to ship agricultural products outside of the region.

Improve access to the United States Forest Service lands

Several existing roadways will need attention to provide needed improvements to foster recreation and logging activities and contribute to the economic vitality of the region. Detailed analysis should be undertaken that considers alignment issues, shoulders, guardrails and other appropriate measures. At a minimum the study should include the following roadways:

- SR 129 - coordinate with WSDOT Route Development Plan
- West Mountain Road
- Asotin Creek Road

Improve access to adjacent states and counties

A number of roadways that provide connections to Whitman and Garfield counties as well as the states of Idaho and Oregon should be considered for improvements. Detailed analysis should be performed that addresses alignment issues, shoulders, guardrails and other appropriate measures. The study should include the following roadways:

- SR 129 - coordinate with WSDOT Route Development Plan
- Troy Road/Grande Rhonde Road
- Peola Road
- Red Wolf Bridge (SR 128) - improve turning radius for trucks on north side

Snake River Crossings

Existing congestion issues at the Fleshman Way/SR-129 interchange and the Southway Bridge that connects Clarkston/Asotin County to Lewiston/Nez Perce County and the regional airport were discussed in the 2004 RTP. A study is currently being performed to consider 20 year traffic projections and evaluate alternatives and costs to improve the Fleshman Way/SR 129 interchange.

Future study efforts should determine long-range traffic volume demand to cross the Snake River between Asotin and Nez Perce Counties and determine appropriate methods to address future need. This should be coordinated with the Lewis Clark Valley Metropolitan Planning Organization (LCVMPO) and regional demographic forecasts and should consider structural integrity of the existing bridges. Potential solutions may include: replace/widen the US 12 bridge, replace/widen the Southway Bridge, or provide a third river crossing south of the Southway Bridge. The product of this effort should address both short and long-range improvements and develop more detailed cost estimates that could be included in future Transportation Improvement Programs.

Mobility Improvements

Growth in population, employment and the movement of goods will impact many roads. It is anticipated that a network of local roadways will serve growth in Asotin County. Some new collector and arterial roadways will also be built to meet future demand. Some existing locally owned roadways as well as state owned collector and arterial facilities will need attention to accommodate future traffic volumes. Specific improvements will need to be identified as growth occurs, likely improvements to the following roadways were discussed at the Asotin County meeting:

- US 12 - within Clarkston; WSDOT State Highway System Plan indicates that the section from SR 128 to Bridge Street needs further study to recommend mobility strategies for future improvements.
- US 12 - widen west to I-182
- US 195 - widen north to Spokane, provide grade separation at Wawawai Road
- Evans Road
- Dustin Loop Road
- Ben Johnson Road to Appleside
- Snake River Road

It should be mentioned that there are north-south routes in Idaho that provide significant benefits and experience similar challenges as routes in Washington. Improvements for some routes must consider the influence that routes in both states have on each other.

Transit

As part of the long-range visioning process, the transit system was discussed. Public transit comments were rather general, indicating that service needs to be expanded, that there should be a trolley service to/for the downtown area, and that the system should be connected with the Pullman-Moscow area to create a Quad cities transit system. A gondola "up the hill" was also mentioned.

It should be pointed out that the existing transit system, Valley Transit, encompasses the Lewiston, Idaho area of Nez Perce county as well as Clarkston and Asotin in Asotin County. Transit improvements should be coordinated through the LCVMPPO. Transit comments recently received through the LCVMPPO Open House indicate a desire to extend service for nights and weekends; that transit opens a whole new world for the disabled and elderly; a trolley service for downtown along the rivers; need to provide service to more areas and more covered permanent bus stops.

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. 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. LCVMPPO open house meetings received comments regarding pathways that indicate that more walking trails are needed, and that a "boulevard" with trees between streets and sidewalks help to buffer the traffic. Additional connections for the bicycle/pedestrian system need to be provided. Bikeways and walkways need to be convenient and pleasant.

Airports

Economy of scale issues with commercial air service were discussed, recognizing that prices are always higher in lower volume markets. A regional airport at Lewiston was discussed as making good sense because of favorable weather patterns for aircraft landing and departures.

Columbia County

After the visioning exercise in Columbia County, the discussion of transportation needs for the various modes identified several issues. The issues have again been grouped into seven categories described below, in no particular priority order.

Snake River

The Snake River needs to be dredged to the federally approved depth in order to maintain the viability of river transport, promote competition, and preserve the ability to ship agricultural products outside of the region.

Railroads

The importance of railroads to the region was discussed in the 2004 RTP document. Specific to Columbia County, long-term improvements to rail were discussed. 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 dredged, the importance of rail is increased several fold.

Downtown Dayton

Trucks need to be better accommodated in Dayton. A by-pass of downtown Dayton is not desired, however the feasibility of providing a collector roadway parallel to US 12 should be considered and evaluated, possibly Commercial Street. This concept could help to minimize the impacts of trucks on the community while easing the trip for the traveler as well. Another consideration for downtown Dayton is the possibility of adding traffic signals at strategic intersections in order to improve cross-town connectivity. As traffic volumes on US 12 continue to rise it will become more difficult for local trips to safely cross the arterial.

Bicycle/Pedestrian Accommodations

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 Dayton bridge is unsafe for pedestrians; either improvements to the bridge or a stand alone bridge should be made to provide better bicycle/pedestrian connections across the Touchet River.

The viaduct also needs improvements to accommodate bicycle/pedestrian movements. Any improvements should carefully consider the existing architecturally pleasing features.

Transit

Commute traffic to Walla Walla and the Tri-Cities is substantial. Establishment of vanpools to serve these areas as well as McNary and Little Goose could be investigated.

Mobility Improvements

US 12 is the major arterial corridor throughout the county. The widening to four lanes from the Tri-Cities to Walla Walla should eventually be extended to Dayton. In the interim, left and right turn lanes and passing lanes should be strategically placed to improve traffic flow and safety, especially where there is poor sight distance such as Longs elevator and Lewis Clark State Park.

Airports

Long term need for a general aviation airport should be considered. Some doctors fly in to provide service to small communities. Such a service could be enhanced if a nearby airport were provided.

Garfield County

Following the visioning exercise in Garfield County, four categories of transportation issues were discussed and are summarized below.

Snake River

The Snake River needs to be dredged to the federally approved depth in order to maintain the viability of river transport, promote competition, and preserve the ability to ship agricultural products outside of the region. Approximately 95% of the grain hauled from Garfield County leaves the county by barge on the Snake River.

Snake River Crossings

As a result of the terrorist events of September, 11, 2001, the roadways traversing the Snake River Dams have been closed. Since many of the Port facilities are situated near these dams, this effects travel routes to the ports, causing out-of-direction travel and increased wear on county roadways. Reopening of the Lower Granite Dam river crossing would provide a much more direct route to Pullman from Pomeroy and better distribute truck loads rather than focus so many trips to the Port of Central Ferry.

Freight

If the viability of the Snake River is not maintained adequately then the demand for other modes will be overwhelmed. Currently no rail operates in Garfield County. Former rail corridors have been significantly dismantled, including many of the rail bridges. Also, all Railroad R/W has been turned back to adjacent property owners.

The impact of heavier trucks on county roadways should be studied. A tremendous amount of grain is hauled on county roads north of US 12 to the Snake River. The long term maintenance costs for these several roadways are expected to increase dramatically over time, resulting in an overall system failure. The impacts of these long term costs as well as the feasibility for alternative freight systems need to be studied in depth. Such a

study might also investigate the possibility of new rail lines on abandoned rail corridors that would be self-contained to take product to the ports.

Pomeroy

Within the town of Pomeroy there are heavy impacts from US 12 through traffic on local travel patterns. A traffic study needs to be completed that would evaluate the possibility of alternative traffic designs which would consider mobility, safety, local circulation and pedestrian travel.

Whitman County

Several transportation issues and improvements were discussed during the Whitman County visioning meeting. The issues were grouped into six categories and are described below.

Snake River

The Snake River needs to be dredged to the federally approved depth in order to maintain the viability of river transport, promote competition, and preserve the ability to ship agricultural products outside of the region.

Freight

Next only to the magnitude of the importance of retaining the ability to export agricultural products from the region via the Snake River is the importance of getting products to the ports on the Snake River. Many gravel and paved roads provide access from farms within Whitman County to the Port of Almota, however there are two roadways that the vast majority of loaded trucks traverse:

1. SR 194: US 195 to Port of Almota
2. Almota Road: Colfax to SR 194

These two roadways need to be reconstructed to better handle the loaded trucks that regularly haul agricultural products to the Port. Reconstruction should include some alignment improvements as well as shoulders, guardrails and other safety improvements.

Also discussed at the meeting held in Whitman County is the need to increase options for hauling freight. So much of the product in Whitman County is destined for the Port of Almota and must traverse a significant distance on just a few roadways where there is a significant grade change down to the Port. A study examining other means of transporting the product down to the Port might identify other means to transport the products that could be implemented with less funds than would be required to reconstruct and maintain SR 194 at least from the junction with Almota Road south to the Port of Almota.

Several other improvements to county roadways will enhance/expand the all weather freight network, including the following:

- 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

Rail opportunities must be preserved, especially the Grain Train out of Fallon.

Mobility Improvements

US 195 is the major north-south arterial through Whitman County. It is often burdened with traffic back-ups due to slow moving vehicles or event traffic to/from Pullman. Congestion in Pullman also hampers the ability of through traffic primarily for east-west movements; a discussion of a Pullman bypass was included in the 1994 RTP. A preferred northern bypass alignment has been identified with significant right-of way secured, however there is no identified funding source. The City of Pullman is currently studying the possibility of a south by-pass. The Moscow Ring Road will also pass through part of Whitman County. Other roadways were also mentioned for mobility improvements at the visioning meeting as well. Suggestions included:

- Widen US 195 from Lewiston to Spokane.
- Provide additional hill climbing/passing lanes from Lewiston to Spokane
- North Pullman Bypass
- South Pullman Bypass
- SH-26 improvements
- Airport Road
- Preserve future functionality of rural corridors now through right-of-way and access management and frontage roads where appropriate

Transit

The Whitman County visioning meeting discussion of transit noted that transit for the Pullman area is a huge element of the transportation equation. Suggestions for improving transit included the following:

- Increase the connectivity of the Quad Cities and to/from Spokane.
- Create a rideshare program to assist in the formulation of car/vanpools.
- Commuter bus from Pullman to Spokane
- Coordinate airport shuttle with those who commute to/from Spokane
- Add park-and-ride lots around Pullman

Bicycle and Pedestrian Accommodations

Regarding bicycle and pedestrian improvements it was noted that the trail connection from west of Pullman to Troy, Idaho is nearly complete. The following planning considerations were contributed:

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

Funding

Funding of all projects, roadway maintenance issues and transportation improvements in general was discussed. Specifically, the Pullman bypass and south Pullman bypass were mentioned as projects that have funding challenges because of the magnitude of the scope of each project. In addition to this, large reconstruction projects of local roads will take many years to complete at current funding levels.

Correlation of Region's Key Issues with Statewide Issues

Washington Transportation Plan

The Washington Transportation Plan (WTP) is in the process of being updated. Data on the transportation system has been collected over the last year to document existing conditions. Workshops with the Transportation Commission have been held to discuss issues with stakeholders, planners, elected officials and other interested parties. Nine Key Statewide Transportation Issues have been identified for discussion:

- **System Preservation - Fundamental Issue** - What will it take to make sure that the elements of the transportation system that we take for granted today will still be in place when we need them in two, six or twenty years?
- **System Efficiencies - Fundamental Issue** - How can we best work toward optimizing how efficiently we derive the benefits of our current transportation system facilities and those we are able to create in the future?
- **Safety - Fundamental Issue** - How do we make transportation systems and facilities throughout the state safer for their users?
- **Transportation for Everyone - Fundamental Issue** - Where basic transportation services are indispensable for all citizens' social engagement, how is a "safety net" for transportation needs to be provided every citizen in every community?
- **Bottlenecks and Chokepoints - Fundamental Issue** - What opportunities for investment in new facility and system assets can help address system chokepoints and bottlenecks, the most effective near-term solution through expanding capacity to move people and goods in shorter times and more reliable times?
- **Contributing to a Strong Economy and Good Jobs - Fundamental Issue** - What investments in new facility and system assets can help support the state's economic vitality and strengthen the job picture?
- **Moving Freight - Fundamental Issue** - How are the special needs of freight movement to be incorporated into the state's transportation plan?
- **Building Future Visions - Fundamental Issue** - What are the visions of transportation system futures - shared and unshared - that should shape today's transportation planning to help create pathways to the future?
- **Health and the Environment - Fundamental Issue** - How can transportation investments be developed, implemented and used in ways that at the same time enhance our citizens' transportation goals and our citizens' goals for healthy communities and a well-protected environment?

More detailed research was conducted to better understand the WTP process and the statewide issues as identified through that process. Much effort has been expended by many state employees and others to reach out to understand the transportation issues and challenges facing the state of Washington. Three particularly pertinent documents with respect to the statewide issues and Washington's counties are included in Appendix C:

- Summary of Statewide Key Issue Papers
- Interim Briefing to the Transportation Commission 4/22/2004
- Local Roadways: The County System 10/19/2004

Important things that WSDOT has heard across the state (as summarized in the Briefing to the Transportation Commission, page 16 of Appendix C,) indicates the following:

- County road levy and the current share of the gas tax cannot meet current funding needs.
- Most rural counties do not have an adequate tax base to fund general government needs let alone local transportation improvements.
- Local options cannot generate enough funds to provide for construction maintenance and preservation programs.
- Recent statewide initiatives have repealed local transportation funding tools.

The Washington Association of Counties also presented to the Transportation Commission a summary of issues, including (see page 13, 18 of Appendix C):

- The current state funding programs through WSDOT, TIB and CRAB are not keeping up with the need.
- Counties are trying to balance competing needs between safety, preservation and maintenance and falling short on all three.
- Additional funding should be flexible enough to allow local elected's and professional staff to manage diverse demands.

The Statewide Key Issues are further summarized below:

- **System Preservation** - focus is on taking care of the existing transportation system - all modes - and doing it in a cost effective way, managing our assets with a "fix it first" attitude before it needs to be replaced.
- **System Efficiencies** - focus is on getting the most out of our existing transportation investments through operational strategies, from basic maintenance activities to sophisticated technologies. Also includes park-and-rides for transit.
- **Safety** - focus is on design features such as turn lanes, rumble strips, improved shoulders and roadsides for rural roads, maintenance activities like snow removal. Bike and pedestrian facilities can reduce the number of those types of accidents.
- **Transportation for Everyone** - focus is on transportation for those who physically or financially can not provide for themselves. Strategies and issues revolve primarily around transit.
- **Bottlenecks and Chokepoints** - focus is on providing select capacity improvements that will help to get the most out of the transportation system in areas that are congested.
- **Contributing to a Strong Economy and Good Jobs** - Targeted transportation economic development projects should focus on retaining existing jobs or probably new jobs to help ensure success. WSDOT also indicates that the discussion for this issue is closely related to the discussions about Moving Freight and Bottlenecks and Chokepoints. Improving safety, reducing delay and lowering operating costs are basic user benefits.
- **Moving Freight** - for all modes of transportation this issues is critical to the Washington economy. Washington is a gateway for international markets. The importance of trucking, rail and waterways is emphasized.

- **Building Future Visions** - this issue takes a longer look at transportation issues and facilities, even though funding levels are limited. Where are future facilities and what technologies are needed in order to address needs.
- **Health and the Environment** - focus is on the impact that transportation systems have air quality, water quality, noise, etc. that influence human health and species protection. Such things as emissions, stormwater runoff, limiting vehicle miles traveled, etc. are included.

Explanation of Regional Issues to Statewide Issues Correlation

Although regional issues facing the Palouse Region discussed above and in the 2004 RTP in some cases are unique to this region, they correspond well with the nine broad statewide issues that have been identified through the WSDOT Statewide Transportation Plan. Table 1 on the following page has been prepared to show the relationship of regional issues to the nine statewide issues being considered by the Transportation Commission in the development of policies and approaches to address statewide transportation needs.

The first 9 regional issues shown in the left column of the table are discussed in the 2004 RTP. The remaining 11 regional issues were discussed earlier in this 2005 RTP Addendum. There were also 8 "Other" regional issues that were discussed in the 2004 RTP that were combined with 2005 issues for the purpose of this table. These include:

- **US-12 Route Development Plan** - combined with Long-range Mobility Improvements
- **SR 129 Route Development Plan** - combined with Improved Access to adjacent jurisdictions
- **Roadways Traversing Snake River Dams** - combined with Snake River Crossings
- **Regional Airports** - combined with Airports/Air Service
- **Columbia County Airport** - combined with Airports/Air Service
- **Wawawai Road** - combined with Other Freight Issues
- **SR 230** - combined with Future Visions. This is a possible future state route connecting from SR 23 south of Lamont to I-90 near Ritzville.
- **Small Structures** - combined with Maintenance and Preservation

Certainly there are other 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 purposes of this document, those relationships that appeared to be the strongest have been identified.

Table 1. Correlation of Regional Key Issues to Statewide Issues

Regional Issue	Statewide Key Issue								
	<i>System Preservation</i>	<i>System Efficiencies</i>	<i>Safety</i>	<i>Transportation Access</i>	<i>Bottlenecks and Chokepoints</i>	<i>Contributing to a Strong Economy and Good Jobs</i>	<i>Moving Freight</i>	<i>Building Future Visions</i>	<i>Health and Environments</i>
Maintenance and Preservation	√	√	√			√	√		√
Safety	√	√	√			√	√		√
Seasonal Road Closures	√	√			√	√	√	√	√
Pullman By-Pass		√	√		√	√	√	√	√
Fleshman Way/SR 129 Interchange		√	√	√	√	√	√	√	√
US 12 in Clarkston	√	√	√		√	√	√		
Railroads	√	√			√	√	√	√	√
Snake River Vitality	√	√			√	√	√	√	√
Stormwater	√		√						√
Improve Access to USFS lands		√	√			√	√	√	√
Improve Access to adjacent jurisdictions	√	√	√			√	√	√	
Snake River Crossings		√			√	√	√	√	
Long Range Mobility Improvements			√		√	√	√	√	
Transit	√	√	√	√		√		√	√
Bicycle/Pedestrian Accommodations		√	√	√		√		√	√
Airports/Air service				√		√	√	√	
Downtown Dayton		√	√		√	√	√	√	√
Other Freight Issues	√	√			√	√	√	√	√
Pomeroy	√	√	√			√	√	√	
Funding	√	√			√	√	√	√	

Pavement Maintenance/Preservation

A more detailed analysis of the 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 put together 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.

Roadway Network Components

The system of regionally significant roadways was documented in the 2004 Palouse Regional Transportation Plan. In order to fully understand the magnitude of the task of providing an operable transportation system in each county, it is important to consider the full system of county roadways. Table 2 reports total county roadway mileage broken down by arterial versus non-arterial and also by roadway surface type.

Table 2. Roadway Type and Total Miles by County

System Component	County			
	Asotin	Columbia	Garfield	Whitman
Access Roads	226.5	274.2	234.1	1,295.8
Arterial Roads	171.6	229.9	213.6	618.5
TOTAL System	398.0	504.1	447.7	1,914.3
Paved Arterial	95.1	137.7	126.9	417.4
Unpaved Arterial	76.5	92.2	86.8	201.1
Other Paved	63.4	10.0	4.7	0.0
Other Gravel	106.1	217.2	167.5	895.8
Dirt	57.0	47.0	61.9	400.0
TOTAL System	398.0	504.1	447.7	1,914.3

Notes:

1. Sources -- County Road Administration Board 2004 Annual Report; County Engineers provided inventory data for Gravel and Dirt Surfaced roadways.
2. Columbia Garfield and Whitman County roadway mileage is rural centerline mileage.
3. Asotin County mileage also includes 58.5 miles of urban access roads and 19.5 miles of urban arterial roads.
4. Unpaved Arterial Mileage estimated from total arterial less paved arterial mileage. There are likely some non-arterial roadways that are paved which would reduce the amount of unpaved arterial mileage shown in this table. Total for paved, gravel and dirt correspond closely with figures provided by county engineers.

Examination of Table 2 reveals several important characteristics of each county roadway network:

- Total county roadway mileage for the 4 counties combined is nearly 3,300 centerline miles, with approximately 850 being paved.
- Unpaved county arterial roadways ranges from approximately 33% to 45%.
- Some counties have non arterial roadways that are paved.
- Each county has over 200 centerline miles of unpaved roads to maintain, some being arterial roads, with Whitman county having over 1000 miles of gravel roads and 400 miles of dirt roads that provide access to farms in the county.
- Asotin County also maintains nearly 70 centerline miles of urban roadways.

Within the four counties there are 672 miles of roadway included in the statewide Freight and Goods System, many of which are state highways. (The 2004 RTP indicated that there are 421 miles of state highways.) No full correlation between the condition of county roads on the Freight and Goods System can be made because of the overlap with state highways, however the following table provides interesting information. When compared with the information provided in the 2004 RTP on roadway mileage for state highways, it would appear that the good adequacy rating for Asotin County is achieved in large part because of the state highway system.

Table 3. Freight and Goods System

F&GS Truck Route Class	County			
	Asotin	Columbia	Garfield	Whitman
T-1; > 10 million tons/yr	0	0	0	0
T-2; 4 - 10 million tons/yr	0.15	0	0	0
T-3; 300,000 - 4 M tons/yr	22.999	10.303	0	2.89
T-4; 100,000 - 300,000 tons/yr	19.976	49.829	10.13	37.974
T-5; 20,000 tons in 60 days	0	147.074	117.275	253.599
TOTAL F&GS Mileage	43.125	207.206	127.405	294.463
Total Adequate	34.147	25.534	112.195	37.044
Percent Adequate 2004	79.2%	12.3%	88.1%	12.6%

SOURCE: CRAB Reports, County Road Log certified 1/1/2004

Adequacy defined by Cost Responsibility Study - All Weather Roads

Seasonal Road Closures

As discussed in the 2004 RTP, a limitation of 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 much of January through March 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. For some roadways this is becoming more of an issue because farmers would like to use the roads year round to make better business decisions.

Of those roadways on the Freight and Goods System, Asotin county has none with posted load restrictions, Columbia County has 121.8 miles and Whitman County has 268.7 miles; the list of roadways under freight issues in Whitman County (bottom of page 9) identifies some of the most important roadways that need improvements, but this list is clearly incomplete. Although Garfield County does not typically impose seasonal load restrictions, they are done on an as-need basis. It should be noted, however, that only about 20% of Garfield County roads are constructed to all-weather conditions.

Bridges

Several bridges on the county roadway system have been constructed in order serve a vital role to make 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 4 summarizes the number of bridges by county. 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 doesn't decrease proportionately to the work completed. For example between 1999 and 2000 Columbia County reduced the number of posted bridges by 5 while the number of deficient bridges increased by 3; also from 2003 to 2004 the number of posted bridges was reduced by 2 but the number of deficient bridges decreased by only one (seemingly that two were no longer deficient, but that one bridge not repaired had degraded to a deficient condition).

Table 4. Bridge Data By County by Year

Year	Asotin County						Columbia County					
	County Owned Bridges	Bridges Posted or May Consider Posting		Bridges with Posting Not Required		Deficient Bridges *	County Owned Bridges	Bridges Posted or May Consider Posting		Bridges with Posting Not Required		Deficient Bridges*
		FAR	NFAR	FAR	NFAR			FAR	NFAR	FAR	NFAR	
1999	16	1	0	9	6	3	62	4	10	15	33	10
2000	17	0	0	13	4	2	62	2	7	17	36	13
2001	17	0	0	13	4	2	63	2	5	17	39	12
2002	18	0	0	14	4	2	63	2	5	17	39	12
2003	18	0	0	14	4	2	63	0	5	19	39	9
2004	18	0	0	14	4	2	64	0	3	20	41	8

Source: CRAB Annual Reports

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 4. Bridge Data By County by Year (continued)

Year	Garfield County						Whitman County					
	County Owned Bridges	Bridges Posted or May Consider Posting		Bridges with Posting Not Required		Deficient Bridges *	County Owned Bridges	Bridges Posted or May Consider Posting		Bridges with Posting Not Required		Deficient Bridges*
		FAR	NFAR	FAR	NFAR			FAR	NFAR			
1999	35	1	1	15	18	10	240	11	47	39	143	42
2000	36	1	1	16	18	11	238	6	23	43	166	67
2001	36	1	1	16	18	11	241	6	19	46	168	68
2002	37	1	0	16	20	10	240	8	32	44	156	68
2003	36	1	0	16	19	10	243	7	28	46	162	61
2004	36	1	0	16	19	9	245	6	27	47	165	62

Pavement Management

Those responsible for determining appropriate allocation of public funds to various programs and projects have a difficult job indeed. With limited funding they must determine the amount 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 Auditors office (included on page 8 of Appendix C) indicates that on average Counties in Washington State spend approximately 17% of their funding on Transportation Transit and Maintenance and 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 (also included on page 9 of Appendix C) indicates that on average county transportation expenditures are approximately 36% for maintenance, with 40% on 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 can not be overemphasized 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 following

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 which roadways in order to efficiently use available funds.

A PMS typically entails 5 steps that are repeated as necessary every two to three years:

- Mapping (GIS) Road Network
- Pavement Condition Inventory
- Identify Maintenance & Repair Needs
- Analyze repair strategies and establish annual funding levels
- Implement annual program.

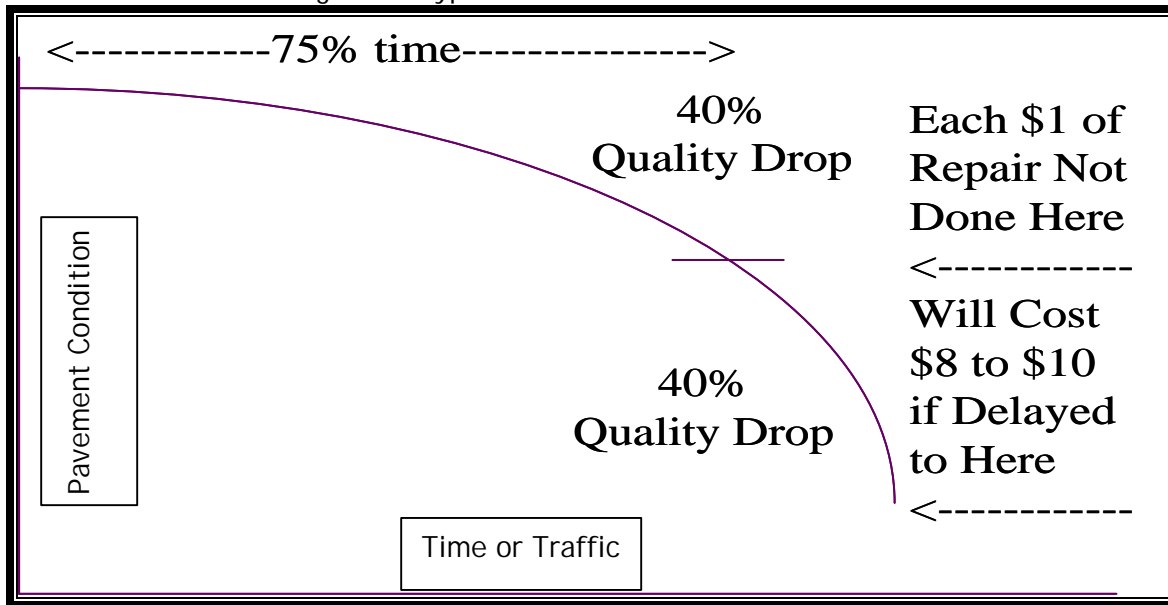
A systematic procedure should be used each cycle to collect pavement condition inventory information. This provides an up-to-date inventory for better decision making and allows pavement performance to be tracked over time. Several different types of pavement distress can occur, each with different types 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 surfacing. Complete failure occurs when a road segment has an RSL value of 0 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 islands on the base material.

By evaluating the RSL distribution for the road network, allocation of funds to the appropriate repair strategies can begin. It is important that the repair strategy is 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 1, page 21 emphasizes the importance of routine roadway maintenance activities prior to severe deterioration of pavement condition.

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.

Figure 1. Typical Pavement Deterioration Curve



Deferred Action is always a viable option when developing a repair strategy. Most road networks will include a wide spectrum of RSLs 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 3, 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 the 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 can be used 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 distresses become a serious problem. This strategy provides the most benefit to a roadway if implemented before the RSL is below 7. Examples of possible preventative maintenance treatment alternatives include: sand seal, scrub seal, single chip seal, slurry seal, micro-surfacing.

Rehabilitation includes repair alternatives such as overlays and recycling. This strategy should be reserved for road surfaces that have a 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 that road and 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 <2in., 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, guard rail 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 & Thick Overlay, or Base and Pavement Replacement.

Table 5 displays the benefit different treatment strategies provide in increased RSL over the existing roadway segments RSL along with typical material costs for such treatments. 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 a 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 6 or less is not a cost effective approach.

Table 5. 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	1-3	4-6	7-9	10-12	13-15	16-18	19-20
Routine	Crack Seal	\$0.25	\$4,100	0	0	0	0	1	2	3	4
Preventative	Single Chip Seal	\$1.05	\$17,250	0	1	3	5	5	5	5	5
Rehabilitation	Thin Hot Mix Overlay (<2")	\$3.60	\$59,100	0	4	6	7	7	7	7	7
Reconstruction	Thick Overlay (3")	\$4.75	\$78,000	12	12	12	12	12	12	12	12
Total Reconstruction	Base & Pavement Replacement	\$13.00	\$500,000 - \$1 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.

** 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.

County Routine Maintenance Activities

The importance of maintaining the transportation system was discussed in the 2004 RTP, and earlier in this 2005 RTP Addendum as well as in the WTP materials. This section will briefly describe several of the routine transportation system maintenance activities that go on regularly. Some are directly related to taking care of pavements 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:

- 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
- Pavement markings
- Asotin County also maintains some urban roadways that require sweeping and street lights with associated electricity costs

Table 6 provides a summary of expenditures for each county over the previous 5 year period. It must be understood that county engineers and others make the best use of funding that they can with available information. Table 6 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 priority order.

Examination of Table 6, page 24 quickly reveals that considerable funding is required in order to perform the routine maintenance activities described above. Funds reported in Table 6 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, especially for graveled roadways. When you consider that Whitman County annually grades all of their county owned gravel roads and that 20% of these also have gravel added annually it is easier to understand the maintenance costs for these critical roadway connections for county farms.

Table 6. Historical Expenditures for Roadway Maintenance

Asotin County

Roadway Type	Center-line Miles	Year					Total	Average	Average/mile
		2000	2001	2002	2003	2004			
Pavement	158.5	\$678,000	\$722,000	\$803,000	\$768,000	\$805,000	\$3,776,000	\$755,200	\$4,765
Gravel	185.5	\$496,000	\$528,000	\$531,000	\$535,000	\$592,000	\$2,682,000	\$536,400	\$2,892
Dirt	57	\$64,000	\$70,000	\$60,000	\$78,000	\$85,000	\$357,000	\$71,400	\$1,253
TOTAL Maintenance		\$1,238,000	\$1,320,000	\$1,394,000	\$1,381,000	\$1,482,000	\$6,815,000		

Columbia County

Roadway Type	Center-line Miles	Year					Total	Average	Average/mile
		2000	2001	2002	2003	2004			
Pavement	147.67	\$228,595	\$353,661	\$286,330	\$503,356	\$267,320	\$1,639,262	\$327,852	\$2,220
Gravel	313.53	\$883,422	\$921,992	\$1,067,000	\$833,041	\$702,000	\$4,407,455	\$881,491	\$2,812
Dirt	47.01	\$45,263	\$39,347	\$39,160	\$54,306	\$43,000	\$221,076	\$44,215	\$941
TOTAL Maintenance		\$1,157,280	\$1,315,000	\$1,392,490	\$1,390,703	\$1,012,320	\$6,267,793		

Garfield County

Roadway Type	Center-line Miles	Year					Total	Average	Average/mile
		2000	2001	2002	2003	2004			
Pavement	131.52	\$414,305	\$353,134	\$274,530	\$459,546	\$402,743	\$1,904,258	\$380,852	\$2,896
Gravel	200.7	\$838,405	\$966,385	\$867,816	\$789,019	\$896,315	\$4,357,940	\$871,588	\$4,343
Dirt	61.89	\$35,897	\$21,196	\$28,352	\$19,334	\$37,238	\$142,017	\$28,403	\$459
TOTAL Maintenance		\$1,288,607	\$1,340,715	\$1,170,698	\$1,267,899	\$1,336,296	\$6,404,215		

Whitman County

Roadway Type	Center-line Miles	Year					Total	Average	Average/mile
		2000	2001	2002	2003	2004			
Pavement	417.4	\$1,495,000	\$1,492,000	\$1,633,000	\$1,400,000	\$975,250	\$6,995,250	\$1,399,050	\$3,352
Gravel	1080	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$1,998,000	\$9,998,000	\$1,999,600	\$1,851
Dirt	400	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$600,000	\$120,000	\$300
TOTAL Maintenance		\$3,615,000	\$3,612,000	\$3,753,000	\$3,520,000	\$3,093,250	\$17,593,250		

Source: County Engineers

Also significant in the maintaining of 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. Each County maintains records differently, but for a sense of the influence this has on maintenance efforts, Whitman County has nearly 100 structures less than 20 feet with approximately four being replaced annually at a cost of over \$300,000. Many of these smaller structures, when reconstructed, are often greater than 20 feet in length.

Pavement Preservation

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 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 - 7 years then pavement deterioration will occur at an increased rate and the cost to repair the pavement goes up substantially as discussed earlier.

Table 7, page 26 shows the historical expenditures by county to preserve arterial pavement and what they have been able to accomplish with funds spent. Data is unavailable to determine the level of effort spent on non-arterial paved surfaced. Table 2, page 16 shows that non-arterial paved surfaces are most prevalent in Asotin County with over 60 miles of such roadways - primarily because of some urbanized areas within the county. Garfield County has 10 miles of non-arterial paved surfaces while Columbia County has less than 5 miles and Whitman County has none.

Examination of Table 7 shows two key issues:

- Expenditures for some counties are sporadic, probably more indicative of the ability to secure grant funding needed to perform preservation activities. As important as preservation activities are, maintenance activities generally take a higher priority.
- Over the last 6 years the percentage of arterial roadway pavements that have been treated ranges from 27% in Whitman County to over 120% in Columbia County. This is an important number because 85% to 120% of paved surfaces should have been treated in 6 years in order to minimize preservation costs and maximize useful life.

Clearly the available funding to preserve pavements in some counties is inadequate to meet the need and in the not so distant future many roadways that have not received preservation treatment will be beyond possible preservation and require total reconstruction. This will involve substantial investment in order to keep important roadways on the freight and goods system from deteriorating to a point where they either need to be reconstructed for millions of dollars per mile, or are left to revert to gravel.

**Table 7. County Arterial Preservation Program
Historical Expenditures and Accomplishments**

Year	Eligible Arterial System Centerline Miles	Total Eligible Expenses (x \$1,000)	CAPP contribution (%)	Arterial Roadway Treated			
				Seal-coat (miles)	Overlay (miles)	Total (miles)	Percent
Asotin County							
1998	93.9	121.8	98.7	6.7	0.0	6.7	7.1%
1999	95.0	106.5	85.5	15.2	0.0	15.2	16.0%
2000	95.0	121.2	84.6	12.2	0.0	12.2	12.8%
2001	95.8	123.1	84.2	7.7	0.0	7.7	8.0%
2002	95.8	126.0	83.3	9.1	0.0	9.1	9.5%
2003	95.8	153.0	69.1	7.0	0.0	7.0	7.3%
Six Year Total		\$752	83.6	57.9	0.0	57.9	60.8%
Six Year Average		\$125	84.2	9.7	0.0	9.7	10.1%
Average Annual Expenditures per mile (x \$1,000)		\$1.308					

Columbia County							
1998	133.7	247.7	53.5	50.5	12.6	63.1	47.2%
1999	133.7	346.1	37.5	28.3	0.0	28.3	21.2%
2000	133.7	0.0	0.0	0.0	0.0	0.0	0.0%
2001	135.4	448.0	39.7	46.7	0.0	46.7	34.5%
2002	136.1	175.0	81.8	14.4	0.0	14.4	10.6%
2003	137.7	211.9	68.9	15.0	0.0	15.0	10.9%
Six Year Total		\$1,429	51.0	154.9	12.6	167.5	124.3%
Six Year Average		\$238	46.9	25.8	2.1	27.9	20.7%
Average Annual Expenditures per mile (x \$1,000)		\$1.729					

Garfield County							
1998	122.2	309.6	40.4	28.0	1.0	29.0	23.7%
1999	122.2	187.5	65.2	19.0	1.0	20.0	16.4%
2000	122.2	328.9	38.7	26.0	0.0	26.0	21.3%
2001	122.2	252.4	51.6	26.1	0.0	26.1	21.4%
2002	122.2	130.6	99.0	23.7	0.0	23.7	19.4%
2003	121.1	308.5	42.6	25.1	0.1	25.2	20.8%
Six Year Total		\$1,518	50.4	147.9	2.1	150.0	122.9%
Six Year Average		\$253	56.3	24.7	0.4	25.0	20.5%
Average Annual Expenditures per mile (x \$1,000)		\$2.088					

Whitman County							
1998	416.0	741.6	57.4	21.1	10.5	31.6	7.6%
1999	416.0	720.5	57.8	16.1	4.8	20.9	5.0%
2000	414.8	426.7	100.0	7.6	4.2	11.8	2.8%
2001	414.6	426.5	99.8	6.5	3.4	9.9	2.4%
2002	414.3	768.9	46.9	14.0	3.5	17.5	4.2%
2003	417.4	637.3	85.2	14.1	8.1	22.2	5.3%
Six Year Total		\$3,722	69.8	79.4	34.5	113.9	27.4%
Six Year Average		\$620	74.5	13.2	5.8	19.0	4.6%
Average Annual Expenditures per mile (x \$1,000)		\$1.486					

Source: County Road Administration Board Annual Reports and County Engineer review.

Appendix A

COUNTY VISIONING WORKSHOP LIST OF ATTENDEES

April, 2005
Transportation Plan Workshop Attendees

Asotin County

Doug Mattoon	Asotin County Commission
Joel Ristau	Asotin County PW
Renee Olsen	Clarkston Chamber
Jim Martin	City of Clarkston
Robin Turner	Lewiston-NPC Airport
Steve Watson	LCVMPO

Columbia County

Donald Gene Turner	Port of Columbia
Dwight Robanske	Columbia County Commission
Jennie Dickinson	Dayton Chamber
Bill Wiebe	WSDOT
Mitchell Payne	Columbia County Grain Growers
Clark Posey	City/Co. Planning
Robert Yates	Columbia Co Eng

Garfield County

Dean Burton	Garfield County Commission
Bill Clemens	Pacific Power
Marc Jenkins	Pacific Power
Tim Bemis	City of Pomeroy
Alesia Ruchert	Palouse EDC
Curt Cloassen	Pomeroy Grain Port
Walter G. Morgan	Garfield County
Bill Wiebe	WSDOT

Whitman County

Mark Workman	City of Pullman PW
John Sherman	City of Pullman Supervisor
Les MacDonald	City of Moscow PW
Mark Storey	Whitman County Eng
Dane Dunford	Whitman County PW
Russ Rickett	Town of Oakesdale
Bill Motley	Motley & Motley
G.R. "Jerry" Finch	Whitman County Commission
Peg Motley	Wheatland Express
Norma Becker	City of Colfax
Bob Gronholz	Port of Whitman
Mark Rohwer	WSDOT
Thinh Nguyen	Whitman Co. Gazette
Jerry Lenzi	WSDOT
Nancy Mack	Pullman Civic Assoc./Bill Chipman Palouse Trail Assoc.

Appendix B

**COUNTY VISIONING WORKSHOP
MEETING NOTES**

VISIONING WORKSHOP NOTES
ASOTIN COUNTY

VISION

33% growth - maybe to 50% - rather not double, 33% increase in 20 yrs possible (1-2%)

Asotin is a bedroom county

Growth in Lewiston is related, evening out more. Population that travels across state lines

More developable land in Asotin (flat)

Property values in Asotin have risen to flush with Lewiston

Roads will extend to flat areas (above Asotin)

Asotin will grow faster - higher density also

Redevelopment of underdeveloped land that has utilities

Encourage growth management (density up)

Sewer concern - obstacle growth

Economic drivers:

 Tourism - largely under tapped

 Wine

 Home based business

 Health care for aging

 Cruise ships

 New clean industry

 Education - younger people may choose to stay and start business

 Alternative power generation

 Fishing - need to improve stock with species that don't compete with anadromous

 Salmon recovery board - fish valve \$20-200 each

 Hells Canyon always important, better positioned with better air service

 Helicopter rides to "this area's Disneyland"

 Bedroom for nearby recreation

A lot of elderly asking for relocation packages

 90% interest through chamber are seniors

 Cruise ships bring huge interest

Potlatch could become (at least partially) a synthetic building supply co.

Agriculture

 Some larger farms

 Grapes?

Dredging will be done

More restaurants and activities on waterfront

Enhanced cruise ship opportunities

Army COE doesn't allow riverfront, someone needs to discuss things with them (Rooster port leased, waterfront for commercial/retail)

Confluence area could be resort

Economy of scale issues with air and rail that makes it difficult even with large growth

Clean industry - Potlatch maybe not forever

Education - Quad-cities huge (not well known)

 Startups, spin offs, Schweitzer

Alternate power generation

 Wind mills

Wine (hops) brewing malts

Soil/elevation/crops

Downtown:

Rehab of many buildings occurring
Walkable, nice, downtown back on its unique roots
2nd floor apartments
Business spin off
Buildings available for purchase are down to 1
Bicycle friendly
Corridor density needs to go up 1st
Rundown area west of 15th - revitalize
Trolley connect to historic downtown

Port:

Gateway/portal
Port will still be here because of overseas need for grain
Cost of energy will not go down, so river transport will become more important
Underserved

Tribes more active (culturally)

Hunting:

Challenges: Area, Game numbers, Trophy potential
Base for hunt/fish activity

Improve existing connectivity to Forest Service lands, adjacent counties

RAIL - Freight - passenger

Asotin has no rail now

Hard to justify

Acreage AG is not large enough critical mass

AIR

Cargo - takes over Airsouth field

general aviation - central area

passengers - north area

Needs to expand

Obstacles are overcomeable

Delta connection has made quantum leap

Motel/convention center at airport

More outdoor events

More jet service

Regional airport at Lewiston - weather makes more sense - Lewiston grade is just fine

Poor taxi service

Always little higher here - even scale

Aircraft industry changes are being argued about

PUBLIC TRANSPORTATION NEEDS

Connection for Quad-Cities

Need to expand

Trolley service

RIVERS

Open to tourism

Dredge

ROADS

Troy Road

Grand Ronde connects Asotin county with Oregon recreational areas
Shoulder, Guardrail, Realignment some places

Forest Service connectivity

West Mt. road to NSFS - scenic corridor comes out at Garfield

Paola Road - connect Asotin to Garfield County - big for farm to market

Asotin Creek Road - connector to USFS and Garfield County

Ben Johnson Road to Appleside (missing link)

Hts

Valley View is not upgraded

Snake River Road is major recreation and is becoming retail (guides, etc.)

(700-1000 vehicles/day)

All of other projects are valid (previously identified)

Improved connections to neighboring states and counties with existing corridors

4 lanes US12 to I-182

4 lanes US 195

Southway Bridge

Grade sep. Wawawai Road/US195

4 lanes Clarkston, US 12

Southway Bridge access

Dustin Loop corridor

Fleshman to Elm Street extends

Open up large areas of residential

Replace Blue Bridge - US 12

New bridge south of Southway bridge

ROW

South half of Evans Road needs to be on maps

This could host a new business

Improve truck turning on north side of Red Wolf Bridge

NON-MOTORIZED

Gondola up the hill

Pedestrian friendly

Bicycle friendly with sidewalks and trails connecting downtown with river

VISIONING WORKSHOP NOTES
COLUMBIA COUNTY

VISION

Population increase double in 20 years (6-7000) because of telecommunications
Boomers will retire
Dayton grew 1% 1990-2000
Concern infrastructure - supermarket, econ. growth; need to offer meat and potatoes
Water system currently will serve +/- 6000
Want "managed" growth
Need something to offer though, to stimulate growth:
 Windmills +/- 100 families
 Biodiesel facility (20 jobs) Out by Lyons Ferry
9 hole now, 18 hole golf course with homes
Becoming retirement community
Need to attract younger families to increase schools - need to get back to industry
Someone will buy Seneca
Agriculture will still dominate - more efficient
Have to keep railroad - use more
Manufacturer on river - growth in Starbuck
Expansion of downtown Dayton to west
Build stable economy for kids
4-lane US 12 to Dayton - but if population doubles, maybe not so many trips to west
Commuting to Walla Walla and Tri-Cities (today) 300 to, 175 from
Stop growing and die
We have less congestion
Lots of festivals and events - possible radius issue.
Main Street bridge pedestrian concern - Commercial street
Critical mass will change vehicle trips per day
300 from Dayton work in Walla Walla -- Walla Walla to Dayton 4day/week
Prison - Increase 2-300 jobs
Transit - Pick up (pool vans) new, nice vehicles
 Mc Nary run?
 Little Goose
 Routes to Walla Walla and Tri-Cities
 People to people
Walking Trails - Dayton to Waitsburg (or at least state park) problem with bridge
 Phases 1 & 2
Concern Dayton Bridge - not safe for bikes/pedestrians
Viaduct concern - narrow yet architecturally pleasing
Agriculture:
 Pasta
 Not grapes, but maybe in Starbuck
 Straw plant
 Trend for local grown as products
 As is more efficient - new crops, hybrids, hard white wheat
Keep small town look/feel
 Keep ag as strong as possible
 Protect wildlife

Safe highways
Rail/river
Build stable economy:
Schools
Medical facilities
Port may move down to river - Ag tough family wage now
New small business, families come
Value added business
Starbuck could grow (261 rehab)
Wind turbine business
Water:
We have it, very deep
Blue Mountain aquifer
Manufacturing (1275')
Natural Gas:
North end of County (Starbuck)

INFRASTRUCTURE

Concern over utility service capacity

ROADS:

No Dayton bypass, but maybe designate another road (commercial) for trucks.
More turn lanes for safety - Longs Elevator, near St. Pk. bad site distance
Accommodate trucks better in Dayton
Use rail more
Traffic lights on Main Street

RIVERS:

Have to dredge
Can't breach dams
Improve Main St. crossing

RAIL:

Expand
Upgrade track
Preserve (future will involve smaller groups of cars)
Recreation too, for tourists
Keep tourists - Union Pacific at north end of county
52 cars in 100 hours old criteria - can't now justify 10¢/bushel
Spur lines are gone - up line was at Starbuck

RAIL YARD:

Upgrades are planned
Drive spike first

AIR:

Don't rule out new GA
Walla Walla - high cost
Like to get on plane closer than Spokane
Costs are crazy high - Lewiston, Walla Walla, Tri-Cities
Wing air crop duster airport - 2 or 3 around (private general aviation)
"Rock Hill" was considered (10 years)
Wetstone is gone
Woodworth
Hog Eye

VISIONING WORKSHOP NOTES
GARFIELD COUNTY

VISION:

Community will be smaller than today unless something dramatic happens. We're agricultural.
Government will need to step in to get business to come here.
These changes will need to start internally.
The mindset in small towns will be slow over time to change.
High speed Internet a must.
Will need to look in terms of small manufacturing.
Family farms likely to decline.
Telecommunications will be key to helping people who grew up here to come back.
Older population >40% >60 years old.
People want to come back.
Slightly larger downtown, buildings fixed-up, motel and restaurant.
Events: Bulldozer Camp, Ag Museum, need RV facilities - places to stay.
Mountain use: Mountain bikes, Hunting, Snowmobiling, Trails will be necessary.
Old elk season - 3000-4000 tags, no females. Now manage smarter.
Manufacturing is leaving U.S.
Potential to draw 30-40 year olds back to community - schools; Internet (plugged in); clinic/hospital/long term care; small facilities.
Tourism: Tours hopefully historic buildings - Hwy 12
Pataha Creek Dam - fishing
Another fun thing (negative from (CRP) program - special tribal rights
Retirement - (promoted - R) - Golf course; Lewiston nearby
Theatre rehabilitation
General Aviation airports, non-public improved - Lewiston very spendy to fly out of
Keep Ag vibrant - Why not look at Biodiesel (canola, mustard)? U of I
Port facility w/great road - market it.
Wind mill needs better power grid here.
Need dramatic changes:
Ag is No. 1
Need more ground - cost will rise; add economy diversity, business created jobs
Transport people/businesses here
Government work to facilitate
Start mindset change internally: Conflicting visions/issues
Main Street bus, 2nd stories
Ag History museum
Lose family farm -not a hoped for vision. Key to replace telecommunications. Folks who want to come back.
Obstacles to Industry:
 Telecommunication
 Line of sight issue
Power grid won't support windmills
Government:
 Forest service
 Schools
 Concern about legislature eliminating county
 Concern close parks in mountains

McDonald's - Tele-order
Housing Consultant example, out of Clarkston, Nationwide
95% grain leaves county on barge
Grain carrying pipeline
Logging approach old days

ROADS:

Heavier trucks will require more road maintenance
Study effect of heavier trucks on roads
Steady stream of trucks in early morning (3-4am)
In 20 years may need bypass
Solid stream of semis
Stoplight/no stoplight

RIVERS:

Need to preserve viability - Huge issue to roads.
Potential crossing, direct connect - Pullman to Pomeroy
Wheat and barley - best crop reliability. Organic/natural beef growth. Already
have organic poultry.

RAIL:

None today
New rail on old abandoned lines (maybe self-contained)

Is there a cheaper way to get product to river without destroying roads?

VISIONING MEETING NOTES
WHITMAN COUNTY

VISION

Whitman and Latah Counties will grow together as a result of spin-off from Universities
Spin-off of technology from universities = more white collar

Fewer farmers

Embrace

Ports will be similar in 20 years, activity will grow (also attributable to Universities)

Increase freight options

Helps us all if it is good for area

Port activities will continue, but growth also attributable to University

Spill over from nearby small towns help each other

AG production increase

Canola oil

Grapes

Farm sizes larger

Larger equipment

Employees and businesses are not supported by existing transportation infrastructure

Transportation is huge

Large corporate farms will continue to stress transportation system to higher level

2000 - 18000 acres

Pushing weight limits

Just machinery size increases (bridges)

More connectiveness with Quad-cities and Spokane

Probably will grow enough to need a 4-lane highway Lewiston to Spokane

Definite attraction for retirement - more people are retiring to Pullman

More technical jobs so students stay - diversify job market

Alternate transportation will be needed because of energy costs

Steady-slow growth "controlled" is good - infrastructure isn't there

Need planned community for worker bees

Port will need to be more involved in recreation

Entrepreneurs will need to build RV parks

Protect rural corridors now thru ROW and access management

Trail connection from west of Pullman to Troy, ID is not far from being complete

WSDOT going to upgrade rails to Class I

Apts built Pullman

Need parking lots

Can't get support for Park & Ride

Cost of fuel will have impact

Need frontage roads to get where going, work and play

Small community survives on retail, tougher and tougher to compete

Last 40 years, Pullman was guessed to be 50,000

Moscow 1½%/year for 25 years

Student enrollment strong through 2010, then flat

\$1.40 back for \$1.00 put in (gas tax)

WSU Pullman may not grow much more, WSU Spokane may grow more

Port is working on high speed telecommunication

Moscow will let its lower end housing expand-we need all types of economic base folks

Housing affordability is a higher level problem in Pullman Moscow

Port needs to be recreation enhanced
2% workforce unemployment is tough to compete with that in this county
Maintain 194, 20 years of tonnage that it sees
Develop with green space (quality of life) - livable and healthy
Shortage of tech. skilled folks because jobs are not here
Diversify jobs/businesses
Push for trans. of technology from Univ. to private sector
State regulations
Water issues (at State level), east side stops develop without water rights
Columbia Basin is tough to compete with:
 We have tough ground
 Water challenge
 Work force challenge
 Transportation system
Transportation has been identified as a barrier to growth here
Maintain or increase freight options
Find out from businesses what they want and how to provide it
Barriers of transportation (fwy), available work force, topography, hard soils make it
 difficult to compete
Parking lots/transit to encourage alternate modes
Problem: Road use goes up, mileage goes up, road quality goes down
ITD is talking
We may not see 4 lanes, but we should see extra lands from here to Spokane
NAFTA Trucking - 95 Boise to Canada
South by-pass Pullman -like south, like north

TRANSIT

Key for retired community and apts
Wheatland express important - Pullman has basic network
Commuter bus Pullman/Spokane
Quad-cities connection
PNR around Pullman
Rideshare program
Transit/paratransit is huge to Pullman

TRAILS

Highway projects should include trails
Trails build national reputation
Need more, they are used in towns
Build with roads

ROADS

SR194 & Almota Road - won't handle tonnage
Our (Whitman) patch of Almota Road
Need all weather construction
Finance a by-pass (of Pullman)
4-lanes highway Lewiston to Spokane - grade top to Spokane
Passing lanes
South Pullman by-pass financing
Moscow Ring Road will come into Whitman County

SR23 could be a great freight route
Airport Road
Hume Road improvements near Oaksdale
SR 26 improvements

RIVERS

Don't breach dams
Don't loose salmon
Dredge Snake River
Beaches - road to dunes
Financing must be addressed
Dredging was appropriate 2 years ago, courts stopped dredge

RAIL

Grain train out of Fallon must be preserved
Need to keep rail opportunities

AIR

Need better air service but there is a hurdle to go over
Pricing structure by Horizon Air makes choice to go to Spokane easier
Industrial development at airports Pullman - there is no land not WSU's
Make Pullman Moscow airport option #1 - make goal
Coordinate airport shuttle for 85 folks who commute

Appendix C

WASHINGTON STATE TRANSPORTATION PLAN SUMMARY MATERIALS

Summary of Statewide Key Issue Papers

Interim Briefing to the Transportation Commission 4/22/04

Local Roadways: The County System 10/19/04