

County Road Preservation Needs Report to the Washington State Association of Counties

Washington State Association of County Engineers

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The mission of the Washington State Association of County Engineers, as an affiliate member of the Washington State Association of Counties (WSAC), is to enhance leadership effectiveness by providing more opportunities for professional development, building professional relationships, and advocating stewardship of the environment and infrastructure with which we have been entrusted, for the benefit of present and future generations.

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I. Introduction

The purpose of this report is to provide a summary of county road preservation needs in support of the Washington State Association of Counties (WSAC) request for additional funding for maintenance and preservation of county roads, bridges, ferries, and related infrastructure.

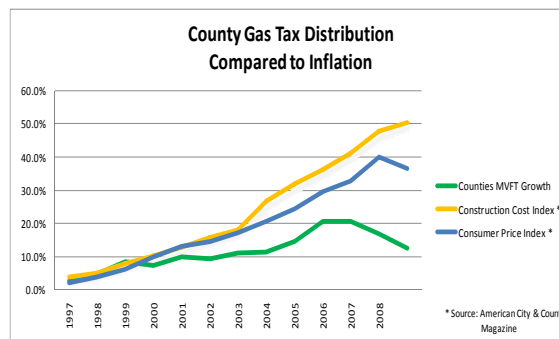
This report does not include an analysis to determine needs associated with increasing county road capacity due to land use, nor does this report determine needs associated with alternate forms of transportation such as transit and non-motorized transportation.

Additional efforts underway by regional transportation planning organizations may further identify additional transportation needs.

County transportation funding has historically come from a variety of sources primarily being county road property tax, state MVFT allocations, and state and federal grants.

As shown in Figure 1, these sources of funds have not kept pace with the increasing needs for maintaining and preserving the local transportation system.

FIGURE 1



The downturn in the economy coupled with higher competition for projects has resulted in some costs declining over the past two years, yet, when looking over the past decade the cost for materials, labor, and equipment associated with road maintenance and preservation has substantially exceeded growth in revenue.

For example, FIGURE 2 and FIGURE 3 show how costs for seal coats and thin overlays¹, a significant maintenance component for preserving roads, have continued to increase over this past decade.

FIGURE 2

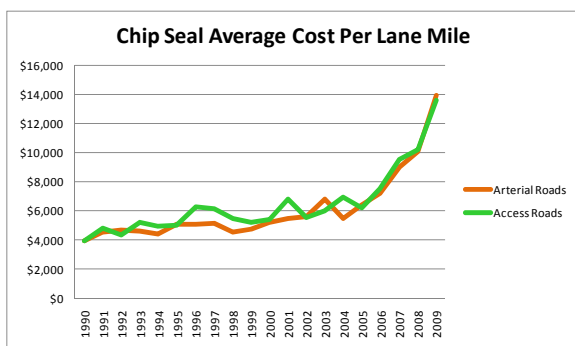
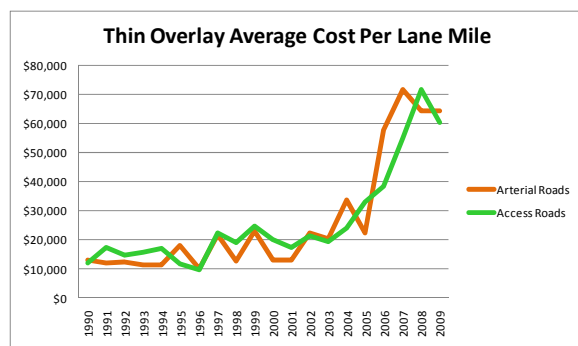


FIGURE 3

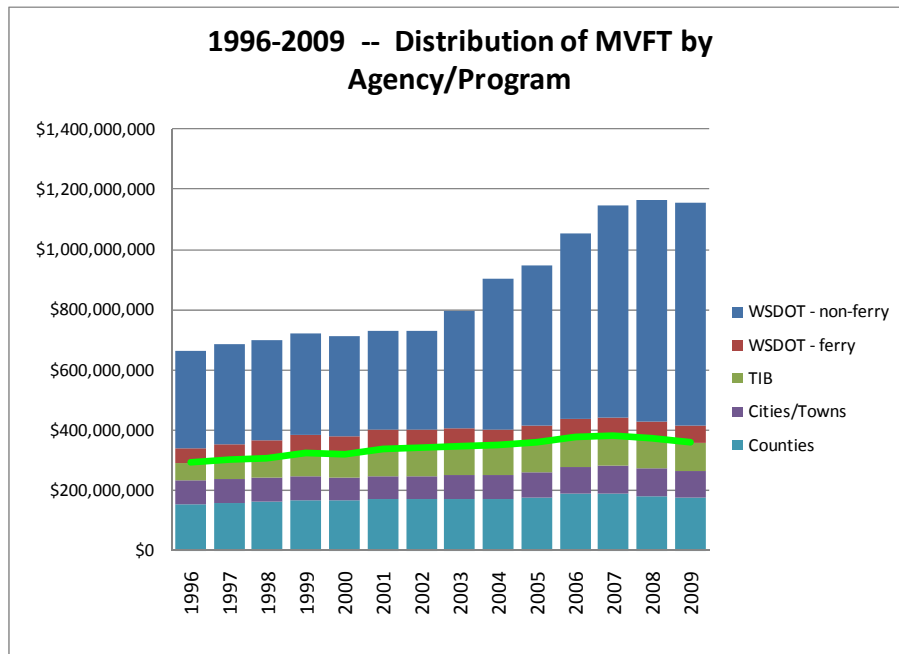


¹ CRAB, data provided from County Arterial Preservation Program reports

As shown in Figure 4, growth in the distribution of gas tax to counties has not grown significantly over the past fifteen years. Growth in gas tax distributions to WSDOT doubled when the legislature passed five cent (2003) and nine and one-half cent (2005-08) MVFT increases, raising the total MVFT to thirty-seven and one-half cents.

As part of the MVFT increases the state legislature increased the distribution to cities and counties by one-half cent in 2007 and 2008. The net gain in funding to cities and counties has effectively disappeared due to an overall decline in MVFT revenue.

FIGURE 4²



Prior to the 5 cent and 9.5 cent increases, cities and counties received nearly half (47%) of all MVFT collected. With the bulk of the recent MVFT increases going to the state, cities and counties now receive less than one-third (31%) of the MVFT collected.

To help local governments meet local transportation needs, the state legislature has authorized several local options which typically require voter approval prior to imposition. Local transportation funding options, though, have not been broadly used by counties with the notable exception of the establishment of Sound Transit in parts of Snohomish, King, and Pierce counties. Section V of this report provides a brief overview of local funding sources with estimates of potential funding.

II. Needs Analysis

This county road preservation needs analysis relies on the county road log data used to calculate the distribution of MVFT to counties per RCW 46.68.122 and RCW 46.68.124. Road replacement cost factors³ provide a good approximation of road preservation costs including improvements to substandard road segments, safety improvements, improvements to horizontal and vertical alignment, and intersection improvements and is comparable to projects typically included in the WSDOT road preservation program.

² CRAB, monthly revenue distribution reports

³ RCW 46.68.124(2) The total annual road cost for each county shall be computed as the sum of one twenty-fifth of the total estimated county road replacement cost, plus the total estimated annual maintenance cost. Appropriate costs for bridges and ferries shall be included. The county road administration board shall be responsible for establishing a uniform system of roadway categories for both maintenance and construction and also for establishing a single statewide cost per mile rate for each roadway category. The total annual cost for each county will be based on the established statewide cost per mile and associated mileage for each category. The mileage to be used for these computations shall be as shown in the county road log as maintained by the county road administration board as of July 1, 1985, and each two years thereafter. Each county shall be responsible for submitting changes, corrections, and deletions as regards the county road log to the county road administration board. Such changes, corrections, and deletions shall be subject to verification and approval by the county road administration board prior to inclusion in the county road log.

All counties provide road data to the County Road Administration Board (CRAB) on an annual basis to maintain the MVFT distribution system. This road data is considered an accurate snapshot of current conditions. There are two significant issues, though, when using the road replacement costs for this purpose.

- First, the road replacement cost factors have not been looked at since 1983 and need updating. Current cost factors used in determining the distribution of MVFT are only adjusted for inflation using the implicit price deflator. In comparing road replacement costs to actual costs for several road projects⁴, it appears that some cost factors need adjustment. For purposes of this report, adjustments have been made (see **TABLE 6**) to the replacement cost factors for arterial roads to address this issue.
- Second, the MVFT distribution formula uses a twenty-five year replacement lifecycle. This may not be a realistic lifecycle for preservation of county roads as long as regular and adequate maintenance is provided. For purposes of this report, fifty years has been used as the county road preservation lifecycle.

In addition to the needs analysis for roads, needs analyses for county bridges, ferries, and fish barrier removals were prepared. These needs are *in addition* to road replacement needs.

- Bridge needs are based on information collected and organized by the Washington State Department of Transportation (WSDOT) Highways Local Programs (H&LP) division. Bridge inventories are kept on existing structures with costs primarily determined from deck surface square feet. It is common for bridge replacement projects to both widen the bridge to address functional deficiencies and lengthen the bridge to address environmental issues.
- Four counties operate vehicle/passenger ferries and receive an allocation of MVFT to support operations and maintenance and are also eligible to request funding for ferry related capital projects. The county ferry needs analysis included in this report is based on the 2008 Ferry Systems Report prepared by CRAB.
- A number of years ago, the Washington Department of Fish & Wildlife (WDFW) conducted field work and prepared inventories for several western Washington counties. Even so, the total number of fish barriers for all county roads is unknown. Fish barrier removal cost estimates are based on anecdotal information obtained from counties along with comparisons to costs experienced by WSDOT. As a result, there is wide range in the cost estimates.

III. The County Road System

The counties of Washington State maintain nearly 40,000 miles of roadway. Table 1 summarizes the road mileage for each county and region along with the relative percentage of the entire road system.

TABLE 1

SUMMARY OF COUNTY ROAD SYSTEM

Region	County	Mileage	% of Tot.
Northeast		17,207.9	43.32%
Northwest		4,428.7	11.15%
Puget Sound		4,969.7	12.51%
Southeast		7,468.1	18.80%
Southwest		5,644.5	14.21%
Grand Total		39,718.9	100.00%

Region	County	Mileage	% of Tot.
Northwest	Clallam	485.0	1.22%
	Island	583.4	1.47%
	Jefferson	396.4	1.00%
	Kitsap	942.0	2.37%
	San Juan	270.9	0.68%
	Skagit	799.2	2.01%
	Whatcom	951.8	2.40%
Northwest Total		4,428.7	11.15%

⁴ Actual road project costs provided by CRAB and TIB.

Region	County	Mileage	% of Tot.
Puget Sound	King	1,758.1	4.43%
	Pierce	1,550.3	3.90%
	Snohomish	1,661.3	4.18%
Puget Sound Total		4,969.7	12.51%

Region	County	Mileage	% of Tot.
Southwest	Clark	1,116.3	2.81%
	Cowlitz	533.8	1.34%
	Grays Harbor	563.3	1.42%
	Lewis	1,050.1	2.64%
	Mason	617.7	1.56%
	Pacific	350.6	0.88%
	Skamania	238.4	0.60%
	Thurston	1,030.7	2.59%
	Wahkiakum	143.6	0.36%
Southwest Total		5,644.5	14.21%

Region	County	Mileage	% of Tot.
Southeast	Asotin	400.2	1.01%
	Benton	860.7	2.17%
	Columbia	503.3	1.27%
	Franklin	989.2	2.49%
	Garfield	447.1	1.13%
	Kittitas	563.6	1.42%
	Klickitat	1,084.4	2.73%
	Walla Walla	961.7	2.42%
	Yakima	1,657.8	4.17%
	Southeast Total		7,468.1

Region	County	Mileage	% of Tot.	
Northeast	Adams	1,775.7	4.47%	
	Chelan	652.8	1.64%	
	Douglas	1,630.0	4.10%	
	Ferry	738.9	1.86%	
	Grant	2,527.0	6.36%	
	Lincoln	2,001.3	5.04%	
	Okanogan	1,384.1	3.48%	
	Pend Oreille	559.7	1.41%	
	Spokane	2,539.3	6.39%	
	Stevens	1,490.5	3.75%	
	Whitman	1,908.6	4.81%	
	Northeast Total		17,207.9	43.32%

TABLE 2 breaks down the county road system based on paving type, truck route, and traffic count showing the relative percentage of the system. The county road system, as one would expect, is made up primarily of rural access roads.

Sixty-five percent of county roads are paved with chip seal or asphalt. Counties play a significant role in economic development with twenty-nine percent of county roads designated as truck routes. Seventy-three percent of county roads have less than 400 average daily traffic.

TABLE 2

Road Mileage	Arterial	Access	Total	%
Rural	12,602	21,042	33,644	85%
Urban	1,883	4,192	6,075	15%
Total	14,485	25,234	39,719	
%	36%	64%		

Road Mileage	Arterial	Access	Total	%
Gravel or less	1,682	12,128	13,811	35%
BST	8,864	8,667	17,531	44%
Paved	3,939	4,438	8,377	21%
Total	14,485	25,234	39,719	
%	36%	64%		

Road Mileage	Arterial	Access	Total	%
Truck Route	9,652	1,792	11,444	29%
Non-Truck Route	4,834	23,441	28,275	71%
Total	14,485	25,234	39,719	
%	36%	64%		

Road Mileage	Arterial	Access	Total	%
ADT				
<400	6,899	22,103	29,002	73%
400-4999	6,509	3,062	9,571	24%
5000+	1,077	69	1,146	3%
Total	14,485	25,234	39,719	
%	36%	64%		

The difference between the rural and urban parts of the state is readily apparent when you compare Northeast counties to Puget Sound counties. TABLE 3 shows that rural arterial and access roads make up 96% of the roads in northeast counties whereas 61% of Puget Sound county roads are urban.

By comparison, both regions (as well as other regions) have the same ratio of arterial to access roads. This is likely due to limitations placed on the number of roads that can be designated as arterials under the federal functional classification system

TABLE 3

Northeast Road Mileage (Arterial/Access by Rural/Urban)				
Road Mileage	Arterial	Access	Total	%
Rural	5,603	10,963	16,566	96%
Urban	221	421	642	4%
Total	5,824	11,384	17,208	
%	34%	66%		

Puget Sound Road Mileage (Arterial/Access by Rural/Urban)				
Road Mileage	Arterial	Access	Total	%
Rural	810	1,105	1,915	39%
Urban	903	2,152	3,055	61%
Total	1,713	3,257	4,970	
%	34%	66%		

In reality many access roads in Puget Sound counties provide a high level of functionality moving traffic and providing regional linkages.

TABLE 4 illustrates that the northeast region, while having three and one-half times the number of miles as the Puget Sound region. The two regions have nearly the same number of road miles with traffic volumes greater than 400 ADT with the Puget Sound region having approximately seven and one-half times the number of road miles carrying traffic volumes greater than 5000 ADT.

TABLE 4

Northeast Road Mileage (Arterial/Access by Traffic Volume)				
ADT	Arterial	Access	Total	%
<400	3,998	11,060	15,058	88%
400-4999	1,736	324	2,060	12%
5000+	90	0	90	1%
Total	5,824	11,384	17,208	
%	34%	66%		

Puget Sound Road Mileage (Arterial/Access by Traffic Volume)				
ADT	Arterial	Access	Total	%
<400	137	2,098	2,235	45%
400-4999	968	1,097	2,066	42%
5000+	607	62	669	13%
Total	1,713	3,257	4,970	
%	34%	66%		

IV. Determining Road Maintenance and Preservation Costs

As previously described, annual road maintenance and replacement cost factors were initially established over twenty-five years ago for their use in the county MVFT distribution formula. TABLE 5 shows the cost factors currently in place. Inflated replacement costs were compared to recently completed road project costs to see if adjustments should be made to better reflect current road preservation costs.

TABLE 6 shows the adjustments that were made to cost factors to more accurately represent current costs. The biggest changes are in the urban arterial categories where road projects can include signalization, illumination, curb, gutter, sidewalk and other improvements. Per mile cost for urban arterial projects can exceed \$20 million. The adjustments reflect average costs over the past several years but could be significantly low.

TABLE 5

MAINTENANCE AND RECONSTRUCTION CATEGORIES AND UNIT COSTS						
FOR 2010 - 2011 COUNTY FUEL TAX ALLOCATIONS						
Categories from 1983 Cost Factor Study, for Roadlog Certified 1/1/2009						
Costs are in 1988 dollars, based on Road Jurisdiction Study cost factors						
Maintenance and Reconstruction Cost Adjustments from WSDOT RF0906, Implicit Price Deflator - 1.656716%						
MAINTENANCE PER CENTERLINE MILE						
Maintenance Category	Rural/Urban	Function Class	Surface Type	Traffic Volume	1988 Dollars Unit Cost (\$/Mile)	2009 Dollars Unit Cost (\$/Mile)
M - 1	R	All	Unimproved	All	712	1,180
M - 2	R	All	Graded	All	1,627	2,695
M - 3	R	Access	Gravel	All	5,779	9,574
M - 4	R	Arterial	Gravel	All	7,850	13,005
M - 5	R	Access	BST	All	8,675	14,372
M - 6	R	Arterial	BST	All	10,573	17,516
M - 7	R	Access	Paved	All	11,501	19,054
M - 8	R	Arterial	Paved	All	15,186	25,159
M - 9	U	Access	BST & Less	All	9,367	15,518
M - 10	U	Arterial	BST & Less	All	21,043	34,862
M - 11	U	Access	Paved	All	13,611	22,550
M - 12	U	Arterial	Paved	< 5,000	30,562	50,633
M - 13	U	Arterial	Paved	5,000 +	55,640	92,180
RECONSTRUCTION \ REPLACEMENT PER CENTERLINE MILE						
Replacement Category	Rural/Urban	Function Class	Surface Type	Traffic Volume	1988 Dollars Unit Cost (\$/Mile)	2009 Dollars Unit Cost (\$/Mile)
R - 1	R	Access	Unpaved	All	239,799	397,279
R - 2	R	Access	BST	All	278,591	461,546
R - 3	R	Access	Paved	All	278,721	461,762
R - 4	R	Min Coll	BST & Less	All	404,121	669,514
R - 5	R	Min Coll	Paved	All	393,143	651,326
R - 6	R	Arterial	BST & Less	All	396,776	657,345
R - 7	R	Arterial	Paved	All	394,260	653,177
R - 8	U	Access	BST & Less	All	617,881	1,023,653
R - 9	U	Access	Paved	All	622,351	1,031,059
R - 10	U	Collector	BST & Less	All	676,283	1,120,409
R - 11	U	Collector	Paved	All	676,283	1,120,409
R - 12	U	Min Art	BST & Less	All	890,245	1,474,883
R - 13	U	Min Art	Paved	All	932,964	1,545,656
R - 14	U	Arterial	BST & Less	All	1,286,494	2,131,355
R - 15	U	Arterial	Paved	All	1,575,676	2,610,448
These are costs per centerline mile for reconstruction of existing road to current standards						
Does not include Right-of-way, multi-modal, and environmental mitigation costs						

TABLE 6

ADJUSTED RECONSTRUCTION \ REPLACEMENT PER CENTERLINE MILE							Adjusted
Replacement Category	Rural/ Urban	Function Class	Surface Type	Traffic Volume	1988 Dollars	2009 Dollars	2009 Dollars
					Unit Cost (\$/Mile)	Unit Cost (\$/Mile)	Unit Cost (\$/Mile)
R - 1	R	Access	Unpaved	All	239,799	397,279	397,279
R - 2	R	Access	BST	All	278,591	461,546	461,546
R - 3	R	Access	Paved	All	278,721	461,762	461,762
R - 4	R	Min Coll	BST & Less	All	404,121	669,514	1,500,000
R - 5	R	Min Coll	Paved	All	393,143	651,326	1,800,000
R - 6	R	Arterial	BST & Less	All	396,776	657,345	1,500,000
R - 7	R	Arterial	Paved	All	394,260	653,177	1,800,000
R - 8	U	Access	BST & Less	All	617,881	1,023,653	1,023,653
R - 9	U	Access	Paved	All	622,351	1,031,059	1,031,059
R - 10	U	Collector	BST & Less	All	676,283	1,120,409	3,000,000
R - 11	U	Collector	Paved	All	676,283	1,120,409	3,500,000
R - 12	U	Min Art	BST & Less	All	890,245	1,474,883	3,000,000
R - 13	U	Min Art	Paved	All	932,964	1,545,656	3,500,000
R - 14	U	Arterial	BST & Less	All	1,286,494	2,131,355	6,000,000
R - 15	U	Arterial	Paved	All	1,575,676	2,610,448	6,500,000
These are costs per centerline mile for reconstruction of existing road to current standards							
Does not include Right-of-way, multi-modal, and environmental mitigation costs							

A. Road Maintenance Needs Summary

Annual road maintenance needs are derived from the road log data from each county based on the cost factors in TABLE 5. Annual road maintenance needs are summarized in TABLE 7 for each maintenance category showing a total of \$650 million per year. By comparison, counties reported maintenance expenditures of \$422 million for 2008.

This gap in road maintenance expenditures when compared to road maintenance needs is likely a reflection of the lack of growth in revenue compared to inflation of maintenance costs, necessitating reductions in the level of services and deferral of maintenance work.

ATTACHMENT A summarizes estimated maintenance needs for each county for both arterial roads and access roads within each county.

TABLE 7

Maintenance Category	Total Mileage	Maintenance Need
M - 01 - Rural, All Classes, Unimproved	768.2	\$ 906,513
M - 02 - Rural, All Classes, Graded	1,451.9	\$ 3,912,914
M - 03 - Rural, Access, Gravel	9,833.2	\$ 94,143,247
M - 04 - Rural, Arterial, Gravel	1,656.5	\$ 21,542,796
M - 05 - Rural, Access, BST	7,441.0	\$ 106,942,005
M - 06 - Rural, Arterial, BST	8,300.9	\$ 145,398,661
M - 07 - Rural, Access, Paved	1,570.7	\$ 29,928,388
M - 08 - Rural, Arterial, Paved	2,621.3	\$ 65,950,416
M - 09 - Urban, Access, BST & Less	98.2	\$ 1,524,302
M - 10 - Urban, Arterial, BST & Less	565.7	\$ 19,720,109
M - 11 - Urban, Access, Paved	4,093.6	\$ 92,310,188
M - 12 - Urban, Arterial, Paved	1,122.7	\$ 56,846,834
M - 13 - Urban, Arterial, Paved, >5000 ADT	194.9	\$ 9,869,739
Total	39,718.9	\$ 648,996,111

B. Road Preservation Needs Summary

Annual road preservation needs (including improvements to substandard roads, safety improvements, horizontal and vertical realignments, and intersection improvements) are similarly derived from road log data from each county.

For purposes of determining annual county road preservation needs, cost factors included in Table 6 have been used together with a fifty-year preservation lifecycle rather than the twenty-five-year cycle used in the MVFT distribution formula. **TABLE 8**, summarizes the total county road preservation needs for all classes of county road at \$813.4 million per year. **ATTACHMENT B** summarizes annual road replacement cost estimates for each county along with a 6-year total for road replacement estimates.

TABLE 8

Replacement Category	Total	Preservation
	Mileage	Need
R - 02 - Rural, Access, BST	19,471.1	\$ 179,735,701
R - 03 - Rural, Access, Paved	1,570.7	\$ 14,505,891
R - 04 - Rural, Min Coll, BST & Less	9,953.9	\$ 298,616,216
R - 05 - Rural, Min Coll, Paved	2,497.6	\$ 89,912,826
R - 06 - Rural, Arterial, BST & Less	26.8	\$ 803,999
R - 07 - Rural, Arterial, Paved	123.8	\$ 4,455,538
R - 08 - Urban, Access, BST & Less	98.2	\$ 2,011,026
R - 09 - Urban, Access, Paved	4,093.6	\$ 84,414,332
R - 10 - Urban, Collector, BST & Less	338.4	\$ 20,306,213
R - 11 - Urban, Collector, Paved	480.9	\$ 33,662,780
R - 12 - Urban, Min Art, BST & Less	208.9	\$ 12,532,436
R - 13 - Urban, Min Art, Paved	641.8	\$ 44,927,807
R - 14 - Urban, Arterial, BST & Less	18.4	\$ 2,202,120
R - 15 - Urban, Arterial, Paved	194.9	\$ 25,340,510
Total	39,718.9	\$ 813,427,396

While both arterial and access roads are a priority for annual maintenance, preservation of the arterial road system has long been recognized as having higher importance for the movement of people and goods. In addition to the county regular MVFT distribution, the state legislature has provided funding of for rural arterial preservation (through CRAB), urban arterial preservation and capacity improvements (through TIB). Federal funding is also focused on higher level arterials through a variety of federal grant programs.

By comparison, **TABLE 9** shows that the annual road preservation need for only the county arterial system alone is estimated at \$532.8 million.

As noted, county arterials account for just over one-third (36.5%) of all county roads, yet arterials account for almost two-thirds (65.5%) of road preservation costs.

Out of necessity, county road preservation programs both at the state and local level have historically focused on the county arterial system.

TABLE 9

Replacement Category	Arterial	Preservation	Access	Preservation
	Mileage	Need	Mileage	Need
R - 02 - Rural, Access, BST			19,471.1	\$ 179,735,701
R - 03 - Rural, Access, Paved			1,570.7	\$ 14,505,891
R - 04 - Rural, Min Coll, BST & Less	9,953.9	\$ 298,616,216		
R - 05 - Rural, Min Coll, Paved	2,497.6	\$ 89,912,826		
R - 06 - Rural, Arterial, BST & Less	26.8	\$ 803,999		
R - 07 - Rural, Arterial, Paved	123.8	\$ 4,455,538		
R - 08 - Urban, Access, BST & Less			98.2	\$ 2,011,026
R - 09 - Urban, Access, Paved			4,093.6	\$ 84,414,332
R - 10 - Urban, Collector, BST & Less	338.4	\$ 20,306,213		
R - 11 - Urban, Collector, Paved	480.9	\$ 33,662,780		
R - 12 - Urban, Min Art, BST & Less	208.9	\$ 12,532,436		
R - 13 - Urban, Min Art, Paved	641.8	\$ 44,927,807		
R - 14 - Urban, Arterial, BST & Less	18.4	\$ 2,202,120		
R - 15 - Urban, Arterial, Paved	194.9	\$ 25,340,510		
Total	14,485.3	\$ 532,760,446	25,233.6	\$ 280,666,950
	36.5%	65.5%	63.5%	34.5%

As noted above, many local access roads function at a high level but are limited to local access classification because of federal functional classification guidelines. In addition to high volume local access roads, some local access roads provide critical economic links as truck routes. Both high-volume local access roads and low-volume truck routes have been overlooked under grant programs that are restricted to arterials. **TABLE 10**, below, provides an estimate of the additional need to address preservation of these local access roads.

TABLE 10

Area	Arterial	Access	Total
Rural	\$ 393,788,579		\$ 393,788,579
Urban	\$ 138,971,866		\$ 138,971,866
>400 ADT		\$ 45,504,508	\$ 45,504,508
Truck Routes		\$ 13,437,679	\$ 13,437,679
Total	\$ 532,760,446	\$ 58,942,187	\$ 591,702,633

C. Rural Road Safety

Rural roads have the highest fatality rate for all classes of roads. In Washington State between 2006 and 2008, run-off-the-road crashes contributed to 2,510 serious injuries and 722 deaths, or 30% of all serious injuries and 39% of all fatalities during this period.

Run-off-the-road collisions were part of 63% of all fatalities and serious injuries on rural county roads from 2006 through 2008.

Run-off-the-road collisions were especially high on county roads, making up 63% of all fatalities and serious injuries on rural county roads and 35% on urban county roads. Due to the frequency of running-off-the-road as a factor in serious and fatal crashes, this issue has been elevated to Priority One in Target Zero.⁵

With no state program specifically established to identify and make safety related road improvements, counties rely on other state sources from TIB and CRAB together with federal highway safety program funds. For federal funds, WSDOT helps identify road segments where traffic accidents have occurred and offers federal funding for projects in those areas. Currently, there is \$45 million available for projects covering funding authorized for the next six years – approximately \$7.5 million per year.

The funding need for road safety can be seen as being included with the overall need for county road maintenance and preservation. No information is currently available to provide a separate and distinct estimate for rural road safety needs. The rural arterial program requires prioritization of projects taking into consideration traffic accidents and other priorities.⁶

⁵ Washington State’s Strategic Highway Safety Plan 2010.

⁶ RCW 36.79.080, Six-year program for rural arterial improvements — Selection of priority improvement projects. ...counties shall select specific priority improvement projects ... taking into account the following: (1) Its structural ability to carry loads imposed upon it; (2) Its

D. County Bridges

As of 2008 counties own and maintain just over 3,300 bridges. One-fifth of county bridges (660) are either structurally deficient or functionally obsolete. One in thirteen county bridges (245) are posted with weight restrictions limiting their ability to carry traffic.

Bridge maintenance needs are based on an average of \$0.469 per square foot per the 2009 CRAB annual report. Bridge replacement needs are based on an average of \$550 per square foot⁷ for replacement. As previously noted, in most cases bridges being replaced are functionally obsolete (narrow) as well as having shorter spans than what will likely be required to protect fish. For these reasons, a bridge project may result in a significant increase in overall dimensions. For purposes of this report, an additional 25%⁸ has been added to costs to account for increases in square footage of the replacement structure.

The replacement costs for county bridges based on the above assumptions total nearly \$6 billion. With an adequately funded maintenance program bridge life can exceed fifty years. For this analysis, using a fifty-year preservation lifecycle may provide a more realistic estimate of annual bridge preservation costs. With this in mind, the annual bridge preservation need can be estimated at \$118.4 million. Total bridge maintenance and preservation needs are included in **TABLE 13**.

WSDOT maintains the inventory used to identify bridges in need of replacing due to structural deficiency or functional obsolescence. The overall sufficiency rating is used to prioritize funding for bridges.

TABLE 13

County Bridges				
	Posted	Not Posted	Total	%
On Fed. Aid Route	77	1,027	1,104	33%
Off-System	168	2,035	2,203	67%
Total	245	3,062	3,307	

Note: 660 county bridges are structurally deficient or functionally obsolete

County Bridges (SF of Surface)				
	Posted	Not Posted	Total	%
On Fed. Aid Route	258,663	3,931,584	4,190,247	51%
Off-System	233,291	3,812,809	4,046,100	49%
Total	491,954	7,744,393	8,236,347	

Maintenance Annual Need for County Bridges				
	Posted	Not Posted	Total	%
On Fed. Aid Route	121,313	1,843,913	1,965,226	51%
Off-System	109,414	1,788,207	1,897,621	49%
Total	230,726	3,632,120	3,862,847	

Replacement Cost for County Bridges (x\$1,000)				
	Posted	Not Posted	Total	%
On Fed. Aid Route	185,914	2,825,826	3,011,740	51%
Off-System	167,678	2,740,456	2,908,135	49%
Total	353,592	5,566,282	5,919,874	

Replacement Cost for County Bridges (x\$1,000)				
	Posted	Not Posted	Total	%
On Fed. Aid Route	3,718	56,517	60,235	51%
Off-System	3,354	54,809	58,163	49%
Total	7,072	111,326	118,397	

Counties rely primarily on federal bridge replacement funds which annually provide about \$35 million in funding for both city and county bridge projects.

County bridges with a sufficiency rating⁹ less than 50 are eligible for federal bridge replacement funds. There are currently 210 county bridges with a sufficiency rating less than 50 with an estimated cost of \$545 million for replacement. A listing of those bridges with project cost estimates is included in **TABLE 30** at the end of this report. These costs are based on average costs and

capacity to move traffic at reasonable speeds; (3) Its adequacy of alignment and related geometrics; (4) Its accident experience; and (5) Its fatal accident experience.

⁷ Personal conversation with WSDOT staff.

⁸ Estimate derived from conversation with WSDOT staff and county engineers. Additional work is needed to provide a more comprehensive estimate.

⁹ Sufficiency rating is a computed numerical value that is used to determine eligibility of a bridge for federal funding. The sufficiency rating formula result varies from 0 to 100. The formula includes factors for structural condition, bridge geometry, and traffic considerations. The sufficiency rating formula is contained in the December 1995 Edition of the "Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges". A bridge with a sufficiency rating of 80 or less is eligible for federal bridge rehabilitation funding. A bridge with a sufficiency rating of 50 or less is eligible for federal bridge replacement funding.

actual replacement costs can vary significantly based on type of bridge structure, site conditions and environmental requirements.

E. County Ferries

Four counties (Whatcom, Skagit, Pierce and Wahkiakum) provide vehicle and passenger ferry service. These four county ferry systems receive MVFT support and are eligible for ferry capital funding through the RAP program.

King County also operates and maintains a passenger only ferry system through a county ferry district and is not eligible for MVFT.

According to the report as summarized in **TABLE 14**, below, the total replacement value of the four-county ferry system is \$79.1 million.¹⁰ Assuming a 50-year preservation lifecycle, the annual capital preservation need is \$1.58 million.

Operating costs are a significant annual expense for these systems. Fare box receipts (tolls) are the primary source of revenues with county road funds and MVFT operating subsidies making up the remainder.

The Whatcom, Skagit and Pierce county subsidies are taken off the top of the MVFT allocation to counties.

The Wahkiakum County ferry operating subsidy is established in RCW 47.56.720 and is budgeted as part of the overall state transportation budget.

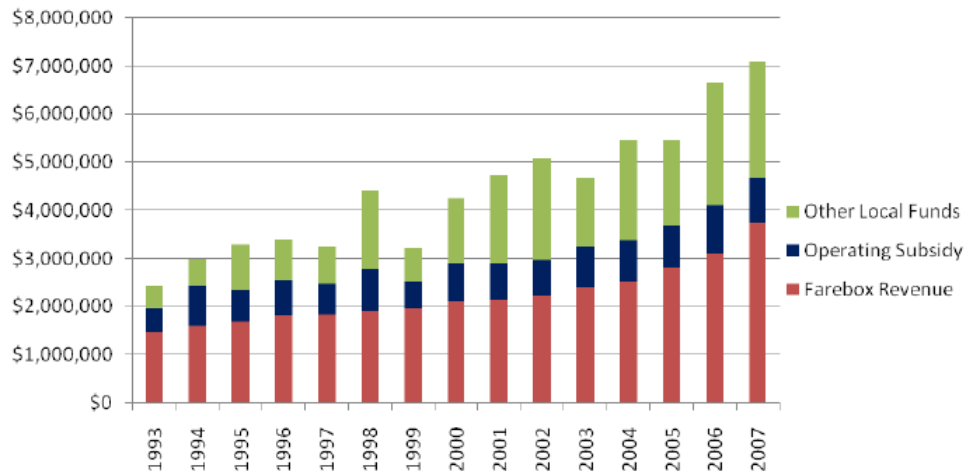
FIGURE 5 summarizes the revenue sources that support the county ferry system. Over the fifteen year period, farebox revenue and use of other local funds has grown while the MVFT operating subsidy has remained constant.

TABLE 14	
County Ferry System	
Pierce County	
Route	Steilacoom to Anderson and Ketron Island.
Ferries	M/V Christine Anderson (1994) M/V Steilacoom II (2006)
Value	\$39,730,600
Skagit County	
Route	Anacortes to Guemes Island
Ferry	M/V Guemes (1979)
Value	\$13,877,394
Wahkiakum County	
Route	Puget Island to Westport, OR
Ferry	M/V Wahkiakum (1962)
Value	\$5,590,000
Whatcom County	
Route	Gooseberry Point to Lummi Island
Ferry	M/V Whatcom Chief (1962)
Value	\$19,868,000
Total	\$79,065,994
Annual Preservation Need:	
	\$1,581,320

¹⁰ CRAB, 2008 County Ferry Systems Report.

FIGURE 5

Total of County Ferry System's Major Revenue Sources to cover O&M Costs



F. Fish Passage Barriers

Washington State law (RCW 77.57.030) requires that all road and bridges be installed and maintained to provide unrestricted fish passage. With the listing of salmon came an increased focus on removal of fish barriers on both state and local roads. Counties have a large number of culverts that impede fish passage in the State and have potential exposure to law suits by the Treaty Tribes¹¹.

Information provided by WDFW identifies approximately 2,000 fish passage barriers in 15 western Washington counties.¹² Extending this figure to all of western Washington would indicate there are approximately 2,300 fish barriers. Additional inventory work is needed to determine whether this estimate is reasonable. Additional work is needed to estimate how many fish passage barriers are in eastern Washington.

The cost to fix fish passage barriers varies significantly due to the wide range of requirements to be met. It is not uncommon to have a road culvert replaced by a culvert or bridge many times larger.

WSDOT maintains an inventory of fish passage barriers and a program identifying repairs and costs.¹³ Their program estimates an average cost per project at over \$700,000.

TABLE 16, below, provides an estimate of the potential number of fish passage barriers for western Washinton and the range of costs associated. Using scenario A, the lowest cost option, with a twenty-five year schedule, the annual need for a fish passage barrier program is \$9.2 million.

¹¹ In August 2007, the Washington State Department of Transportation (WSDOT) lost a law suit brought by the Treaty Tribes of Washington regarding fish barriers in state owned rights-of-way. The US District Court sustained the Tribes' allegation that failure to provide fish passage at road crossings, and a failure to restore passage in a timely manner, breached the Tribes' Treaty rights with respect to fisheries. The Court has not yet determined restitution but it can be anticipated that the Court will require a substantially increased commitment by WSDOT to restoring fish passage.

¹² WDFW Fish Passage and Diversion Screening Inventory database (FPDSI),(03/08/2010).

¹³ WSDOT Fish Passage Inventory Progress Performance Report, July 2009

TABLE 16

Fish Barrier Removal Cost Estimate					
Counties	Barriers	Projected Costs			
15 Counties	1,988 ¹	Cost Range ²			
Estimated number of fish barriers		Project Cost (x1,000)	Total Cost (x1,000)	Annual Cost (4%) (x1,000)	
19 Counties ³	2,300 ⁴	A \$ 100	\$ 230,000	\$ 9,200	
		B \$ 300	\$ 690,000	\$ 27,600	
		C \$ 500	\$ 1,150,000	\$ 46,000	
		D \$ 700	\$ 1,610,000	\$ 64,400	
¹ Information from WDFW compiled from various sources - not verified.					
² Information on county projects is projected based on WSDOT reported costs.					
³ Does not include fish blockage estimate for Eastern Washington Counties					
⁴ Projected based on western Washington road system miles					

G. Summary of Funding Need

The total annual funding gap for county road maintenance and preservation is estimated to be \$409 million. This amount, presented in TABLE 17, focuses on:

- the funding gap for maintenance and preservation of county rural and urban arterials,
- the funding gap for county access roads that perform at higher levels,
- the funding gap for county access roads that are truck routes,
- the funding gap for county bridges,
- the funding gap for county ferry capital preservation,
- and the funding gap for addressing fish passage barriers.

TABLE 17

(x\$1,000)	Road Maint.	Road Preserv.	Bridge M&P	Ferry Cap.	Fish Pass.	Total
Funding Need	648,996	591,703	122,029	1,581	9,200	1,373,509
Current Funding	589,420	375,538	Note ¹			964,958
Funding Gap	59,576	216,165	122,029	1,581	9,200	408,551

¹ Funding included in preservation total

It is important to note that the needs outlined above do not include funding needs for capacity related projects, transit or non-motorized transportation.

V. Local Funding Sources

The county property tax dedicated to roads is the primary revenue source for the maintenance and preservation of the county transportation system. Statewide, road taxes provide about 45% of the total revenues for road maintenance and preservation. Motor vehicle fuel tax (MVFT) is the second most significant resource with the direct allocation of MVFT combined with the rural arterial program (RAP), county arterial preservation program (CAPP), and other state grants accounting for about 25% of local transportation revenues.

TABLE 18

Description	2004	2005	2006	2007	2008
Real and Personal Property Taxes	344,384,306	360,215,846	370,099,417	376,626,032	387,442,176
Forest Harvest Tax	7,509,155	9,923,975	7,252,015	7,799,785	5,606,129
Real Estate Excise Tax	6,756,281	7,164,667	7,368,837	5,266,504	3,546,137
Other Taxes	4,999,187	7,543,449	5,767,333	1,804,232	1,365,012
Permits/Fees	1,116,465	1,825,057	1,214,003	1,353,104	1,279,832
Federal Direct/Indirect	88,737,094	89,511,220	73,659,596	126,843,705	96,332,052
Motor Vehicle Fuel Tax - County Roads	132,751,393	136,781,785	142,960,322	145,969,393	141,984,858
CRAB - Rural Arterial Program	20,577,637	16,620,312	16,147,424	17,136,031	19,841,443
CRAB - County Arterial Preservation Program	14,133,954	14,265,726	16,714,603	15,994,448	15,485,208
TIB/UAB	21,874,538	16,847,838	21,481,712	19,346,303	13,358,344
Capron Refunds (Island & San Juan Counties)	8,100,160	7,650,222	8,143,111	7,948,057	7,162,010
Other State Grants/Shared Revenue	18,902,110	9,108,476	10,741,909	9,934,179	26,394,449
Local Payments for Services	18,672,627	24,026,079	27,025,394	26,205,548	29,529,359
Reimbursable Services	29,111,864	29,511,747	28,810,725	35,359,999	36,782,664
GMA Impact Fees	9,517,741	7,737,729	9,391,005	10,291,371	8,713,200
Ferry Tolls	2,712,433	2,643,491	2,677,285	3,066,785	3,192,433
Investment Interest	2,542,770	4,785,184	8,175,107	7,331,810	3,845,240
Miscellaneous	5,465,650	4,988,496	7,378,317	9,150,705	7,588,746
Bonds and other financing sources	1,180,896	2,524,336	52,145,750	5,865,707	1,912,583
Proceeds From Sale of Capital Assets	-	14,765,747	6,231,471	9,597,664	6,845,928
Operating Transfers - In	18,005,349	12,090,316	7,135,345	9,498,322	15,566,053
Total	757,051,610	780,531,698	830,520,681	852,389,684	833,773,856

Regionally, eastern Washington counties rely more heavily on MVFT for revenue while western Washington counties receive more road property tax due to higher overall higher property values.

The remaining revenue comes from a variety of sources including real estate excise tax, permits/fees, federal and state grants, impact fees, and investment interest. The amount of revenue produced by each of these sources is shown, above, in TABLE 18.

A portion of the \$408.6 million funding gap in for county road preservation potentially can be funded with local option revenue sources authorized by the state legislature.

While the legislature has provided several options for counties to raise revenue at the local level, none of these options have been implemented widely by counties across the state with only a few instances of local options having been implemented in individual counties.

The following sections look at local sources and their ability to funding to individual counties.

Property tax lid lift

Counties collected \$427.5 million in road related property taxes for 2009.¹⁴ Significant increases in property values over the past decade, coupled with legislated property tax limits, has caused levy rates to drop significantly. From 2004 to 2009 county road levy rates dropped on average from \$1.852 to \$1.316 per thousand.¹⁵ It is anticipated, though, as property values have declined, levy rates will go up thus reducing the potential revenue that could be received through a levy lid lift.

State law allows each county to raise road taxes up to the statutory maximum of \$2.25 per thousand, *with voter approval*. Overall, the potential revenue that could be raised from property tax levy lid lifts varies greatly among counties.

¹⁴ CRAB Annual Report, 2009

¹⁵ CRAB Annual Reports, 2004, 2009

TABLE 19

(x\$1,000)			
Region	Current Levy	Maximum Levy	Potential Revenue
Northeast	\$49,032	\$75,803	\$26,771
Northwest	\$72,970	\$159,123	\$86,154
Puget Sound	\$180,914	\$311,621	\$130,707
Southeast	\$34,549	\$45,711	\$11,162
Southwest	\$90,056	\$138,559	\$48,504
Total	\$427,520	\$730,817	\$303,298

When considering a levy lid lift, counties also need to consider the potential impacts to special purpose districts if property tax limits come into play. Special purpose districts may be required to lower their tax rates impacting their ability to provide services.

Levy lid lifts, though, have not been very successful when put before the voters for approval. County legislative authorities have generally been reluctant to ask voters for tax increases except for life safety measures like E-911, fire, or paramedic services.

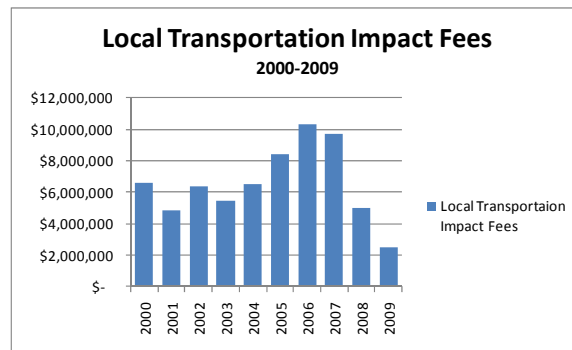
Impact fees

The Growth Management Act (Ch. 36.70A RCW) provides that cities and counties may adopt impact fees related to development. Current law limits the use of impact fees for capacity improvements needed as a result of new development.

Impact fees have been in use for a number of years in many counties. Counties have the ability to increase fees as they deem appropriate, but it can be assumed that the potential for additional revenue above current levels is small.

As shown in Figure 6, the slowdown in development activities has resulted in a drop in transportation impact fees.

FIGURE 6¹⁶



Transportation Benefit District

Chapter 36.73 RCW provides for the creation and funding of local transportation benefit districts. The process of creating a county-wide district requires development of interlocal agreements with local cities and adoption of priorities for projects.

Transportation Benefit Districts (TBD) may also include maintenance and preservation of transportation facilities included in the TBD transportation plan.¹⁷

¹⁶ Local Government Financial Reporting System, State Auditor’s Office

¹⁷ 36.73.180(4) "Transportation improvement" means a project contained in the transportation plan of the state, a regional transportation planning organization, city, county, or eligible jurisdiction as identified in RCW 36.73.020(2). A project may include investment in new or existing highways of statewide significance, principal arterials of regional significance, high capacity transportation, public transportation, and other transportation projects and programs of regional or statewide significance including transportation demand management. **Projects may also include the operation, preservation, and maintenance of these facilities or programs.***[emphasis added]*

Once adopted the legislative authority can opt for a number of potential revenue sources.

- Sales and use tax (up to 0.2 cents)
- Vehicle fee (up to \$100, \$20 councilmanic)
- Commercial building fees
- Tolls

TBDs may establish vehicle fees up to \$100 with voter approval and up to \$20 license fee by majority vote of the district.

The revenue potential for collecting license fees in unincorporated areas of counties for both the \$20 fee (councilmanic) and \$100 is shown in **TABLE 21**.

TABLE 21

County	TBD Rev. @ \$20	TBD Rev. @ \$100
Adams	\$120,720	\$603,600
Asotin	\$235,780	\$1,178,900
Benton	\$517,300	\$2,586,500
Chelan	\$414,220	\$2,071,100
Clallam	\$699,600	\$3,498,000
Clark	\$3,152,600	\$15,763,000
Columbia	\$25,680	\$128,400
Cowlitz	\$821,420	\$4,107,100
Douglas	\$245,640	\$1,228,200
Ferry	\$83,260	\$416,300
Franklin	\$229,480	\$1,147,400
Garfield	\$15,500	\$77,500
Grant	\$682,900	\$3,414,500
Grays Harbor	\$431,700	\$2,158,500
Island	\$1,016,440	\$5,082,200
Jefferson	\$382,040	\$1,910,200
King	\$5,016,920	\$25,084,600
Kitsap	\$2,777,840	\$13,889,200
Kittitas	\$324,980	\$1,624,900
Klickitat	\$206,160	\$1,030,800
Lewis	\$771,340	\$3,856,700
Lincoln	\$87,460	\$437,300
Mason	\$833,600	\$4,168,000
Okanogan	\$317,720	\$1,588,600
Pacific	\$227,740	\$1,138,700
Pend Oreille	\$169,780	\$848,900
Pierce	\$4,741,880	\$23,709,400
San Juan	\$198,000	\$990,000
Skagit	\$896,800	\$4,484,000
Skamania	\$140,380	\$701,900
Snohomish	\$4,966,420	\$24,832,100
Spokane	\$2,313,220	\$11,566,100
Stevens	\$500,880	\$2,504,400
Thurston	\$2,351,680	\$11,758,400
Wahkiakum	\$47,960	\$239,800
Walla Walla	\$232,360	\$1,161,800
Whatcom	\$1,393,760	\$6,968,800
Whitman	\$119,780	\$598,900
Yakima	\$1,347,780	\$6,738,900
Total	\$39,058,720	\$195,293,600

Local Option Fuel Tax

Originally legislated in 1990, RCW 82.80.010 provides that any county may levy a local option fuel tax of up to 10% of the state motor vehicle fuel tax, currently \$0.375 per gallon. No counties have imposed the tax.¹⁸

The commission or council must first approve the measure and then have it approved by a majority of the voters. The proceeds are then distributed to the county and its cities and towns based on a formula where each county resident is given a weight of 1.5 and each city and town resident a weight of 1.0.

For example, if there are 40,000 people in the unincorporated area, they would be counted as the equivalent of 40,000 x 1.5 = 60,000 people. If there are 30,000 people living in cities and towns, then the total "population" is 60,000 + 30,000 = 90,000. The county share would be 60,000/90,000 = 66.6%.

The revenue estimate statewide for all counties and cities is about \$123 million with the share for all counties estimated at \$58 million, as shown in **TABLE 22**.

TABLE 22

	Revenue Est.		Revenue Est.
Puget Sound	\$ 24,664,771	Northeast	\$ 7,344,339
King	\$ 8,720,839	Northwest	\$ 9,263,186
Pierce	\$ 8,570,344	Puget Sound	\$ 24,664,771
Snohomish	\$ 7,373,589	Southeast	\$ 4,737,849
Grand Total	\$ 24,664,771	Southwest	\$ 11,746,378
		Grand Total	\$ 57,756,523

	Revenue Est.
Northwest	\$ 9,263,186
Clallam	\$ 882,479
Island	\$ 1,118,148
Jefferson	\$ 413,489
Kitsap	\$ 3,511,063
San Juan	\$ 271,792
Skagit	\$ 1,142,593
Whatcom	\$ 1,923,620
Grand Total	\$ 9,263,186

	Revenue Est.
Southwest	\$ 11,746,378
Clark	\$ 4,684,593
Cowlitz	\$ 960,477
Grays Harbor	\$ 652,012
Lewis	\$ 968,364
Mason	\$ 932,261
Pacific	\$ 300,035
Skamania	\$ 168,434
Thurston	\$ 3,011,924
Wahkiakum	\$ 68,277
Grand Total	\$ 11,746,378

	Revenue Est.
Southeast	\$ 4,737,849
Asotin	\$ 276,625
Benton	\$ 877,967
Columbia	\$ 29,727
Franklin	\$ 356,102
Garfield	\$ 17,293
Kittitas	\$ 407,875
Klickitat	\$ 281,022
Walla Walla	\$ 411,500
Yakima	\$ 2,079,738
Grand Total	\$ 4,737,849

	Revenue Est.
Northeast	\$ 7,344,339
Adams	\$ 195,042
Chelan	\$ 710,424
Douglas	\$ 459,539
Ferry	\$ 131,091
Grant	\$ 914,349
Lincoln	\$ 107,560
Okanogan	\$ 519,087
Pend Oreille	\$ 196,774
Spokane	\$ 3,267,160
Stevens	\$ 681,023
Whitman	\$ 162,289
Grand Total	\$ 7,344,339

County Ferry District

County Ferry Districts are authorized under Ch. 36.54 RCW. The legislation authorizes up to 75 cents per thousand assessed valuation for operation of a ferry system and may establish tolls (fares) for using the ferry service.

Counties over 1.5 million population (King) can levy up to a maximum of 7.5 cents per thousand. The revenue potential for ferry districts in each county with a ferry system is outlined in Table 23.

TABLE 23

County	Max. Levy
King	25,524,309
Pierce	66,351,089
Skagit	11,992,182
Wahkiakum	343,144
Whatcom	18,808,155

In addition to the four counties previously mentioned that operate vehicle ferries, King County recently began operating two passenger-only ferries to and from Vashon Island and West Seattle to downtown Seattle.

King County established the King County Ferry District in 2008 for controlling and operating the passenger-only ferry run. No other counties have established ferry districts. Although counties may levy the tax county-wide, they may also choose to levy

¹⁸ RCW 82.47.080 allows cities and towns within 10 miles of an international border crossing to impose a fuel tax up to one cent for road maintenance and construction. Whatcom County has established a transportation benefit district for Point Roberts and collects fuel tax for that area.

the tax upon the area specifically served by the local ferry system, thereby reducing potential revenue.

VI. State Shared Funding

A. MVFT (Gas Tax)

Counties receive 4.92 cents of the total 37.5 cent MVFT for direct distribution by formula to each county. The county share, estimated at \$138 million¹⁹, is distributed to counties through the “10-30-30-30”²⁰ formula which takes into account population and need.

Current transportation revenue forecasts indicate that approximately \$31 million in revenue is raised per penny of MVFT. Based on current fuel consumption rates **TABLE 24** shows the amount that would be distributed to each county for each additional penny if the MVFT allocation to counties were to be increased and allocation continued through the current “10-30-30-30” formula.

¹⁹ Transportation Revenue Forecast Council, September 2010 Transportation Economic and Revenue Forecasts, Adopted on 9-16-2010

²⁰ RCW 46.68.122 Distribution of amount to counties — Factors of distribution formula. Funds to be paid to the several counties pursuant to RCW 46.68.120(4) shall be allocated among them upon the basis of a distribution formula consisting of the following four factors:

- (1) An equal distribution factor of ten percent of such funds shall be paid to each county;
- (2) A population factor of thirty percent of such funds shall be paid to each county in direct proportion that the county's total equivalent population, as computed pursuant to RCW 46.68.124(1), is to the total equivalent population of all counties;
- (3) A road cost factor of thirty percent of such funds shall be paid to each county in direct proportion that the county's total annual road cost, as computed pursuant to RCW 46.68.124(2), is to the total annual road costs of all counties;
- (4) A money need factor of thirty percent of such funds shall be paid to each county in direct proportion that the county's money need factor, as computed pursuant to RCW 46.68.124(3), is to the total of money need factors of all counties.

TABLE 24

Region	County	1-cent MVFT
Northeast	Adams	\$ 847,602
	Chelan	483,166
	Douglas	762,972
	Ferry	370,140
	Grant	1,322,832
	Lincoln	873,115
	Okanogan	711,698
	Pend Oreille	340,814
	Spokane	1,922,868
	Stevens	783,029
	Whitman	874,975
Northeast Total		9,293,211
Northwest	Clallam	407,216
	Island	483,755
	Jefferson	296,949
	Kitsap	1,124,680
	San Juan	195,331
	Skagit	681,814
	Whatcom	840,162
	Northwest Total	
Puget Sound	King	2,924,943
	Pierce	2,375,220
	Snohomish	2,113,890
Puget Sound Total		7,414,053
Southeast	Asotin	341,651
	Benton	660,052
	Columbia	302,684
	Franklin	592,224
	Garfield	270,878
	Kittitas	409,355
	Klickitat	562,309
	Walla Walla	613,490
	Yakima	1,227,414
Southeast Total		4,980,057
Southwest	Clark	1,409,322
	Cowlitz	497,147
	Grays Harbor	490,606
	Lewis	702,584
	Mason	470,239
	Pacific	288,145
	Skamania	181,877
	Thurston	1,067,237
	Wahkiakum	175,615
Southwest Total		5,282,772
Grand Total		\$ 31,000,000

B. Rural Arterial Program (RAP)

In addition to the regular distribution of MVFT to counties, the state legislature established the Rural Arterial Program²¹ which is funded through an allocation of .58 cents of the total 37.5 cent MVFT for a total annual revenue of \$18 million. RAP funding is distributed among five regions and then programmed competitively through the RAP grant process established within each region.

Funding eligibility is restricted to county rural arterial roads. Counties with significant amounts of urban arterials are therefore limited to using these funds for roads that may be a lower priority than those in urban areas.

The RAP program also does not provide funding for access roads, even though some access roads may actually have high traffic volumes (>400 ADT) or may be designated truck routes (TABLE 2). By including urban arterials, high-volume access roads, and truck routes on access roads as eligible for RAP funding, 6,458 additional miles of road would become eligible for funding under the program.

Adding these roads would change the distribution of funding among regions. TABLE 25 outlines how distribution of funds could change by adding urban arterials, high-volume access roads, and lower-volume truck routes.

TABLE 25

Rural Arterials Only			Rural & Urban Arterials			Arterials & HV Access & LV Truck Routes		
	Miles	RAP Dist. %		Miles	RAP Dist. %		Miles	RAP Dist. %
Northeast	5,603.0	43.45%	Northeast	5,823.6	40.61%	Northeast	6,929.6	38.05%
Northwest	1,335.2	11.14%	Northwest	1,598.7	11.44%	Northwest	2,487.0	12.78%
Puget Sound	810.1	6.79%	Puget Sound	1,712.7	10.39%	Puget Sound	2,900.5	12.65%
Southeast	3,034.7	23.65%	Southeast	3,220.5	22.41%	Southeast	3,778.2	20.81%
Southwest	1,819.1	14.97%	Southwest	2,129.8	15.15%	Southwest	2,964.6	15.71%
Total	12,602.0	100.00%	Total	14,485.3	100.00%	Total	19,059.9	100.00%

TABLE 26 compares the revenue change that would result if eligibility criteria were changed as described above. The rural arterial trust account receives through the MFVT distribution approximately \$18 million annually for road projects. Western Washington counties and in particular, Puget Sound counties would gain revenue while eastern Washington counties would lose revenue. Any changes that would affect fund distribution should be made only when or if additional revenues to the program are provided.

TABLE 26

Rural Arterials Only			Rural & Urban Arterials			Arterials & HV Access & LV Truck Routes		
	Miles	RAP \$\$ Dist.		Miles	RAP \$\$ Dist.		Miles	RAP \$\$ Dist.
Northeast	5,603.0	\$ 7,820,939	Northeast	5,823.6	\$ 7,310,026	Northeast	6,929.6	\$ 6,848,455
Northwest	1,335.2	\$ 2,005,977	Northwest	1,598.7	\$ 2,058,990	Northwest	2,487.0	\$ 2,300,417
Puget Sound	810.1	\$ 1,222,275	Puget Sound	1,712.7	\$ 1,869,767	Puget Sound	2,900.5	\$ 2,277,032
Southeast	3,034.7	\$ 4,256,435	Southeast	3,220.5	\$ 4,034,676	Southeast	3,778.2	\$ 3,745,425
Southwest	1,819.1	\$ 2,694,373	Southwest	2,129.8	\$ 2,726,541	Southwest	2,964.6	\$ 2,828,672
Total	12,602.0	\$ 18,000,000	Total	14,485.3	\$ 18,000,000	Total	19,059.9	\$ 18,000,000

C. County Arterial Preservation Program (CAPP)

The County Arterial Preservation Program (CAPP)²² is allocated 0.45 cents of the MVFT generating approximately \$14 million per year for preservation of county arterials. Funds are distributed in proportion to the number of paved arterial lane miles in the unincorporated area of each county as outlined in TABLE 27.

²¹ Chapter 36.79 RCW, established in 1983.

²² RCW 46.68.090(2)(i), (i) ...These funds shall be distributed by the county road administration board to counties in proportions corresponding to the number of paved arterial lane miles in the unincorporated area of each county and shall be used for improvements to sustain the structural, safety, and operational integrity of county arterials...

TABLE 27

Region	% Dist.	CAPP \$
County		
Northeast		
Adams	4.192%	586,885
Chelan	1.826%	255,603
Douglas	2.261%	316,526
Ferry	1.438%	201,361
Grant	6.448%	902,768
Lincoln	2.910%	407,359
Okanogan	3.137%	439,132
Pend Oreille	1.284%	179,806
Spokane	5.640%	789,626
Stevens	3.571%	499,970
Whitman	3.215%	450,125
Northwest		
San Juan	0.665%	93,141
Clallam	0.991%	138,786
Island	1.667%	233,421
Jefferson	0.998%	139,761
Kitsap	2.439%	341,485
Skagit	2.732%	382,423
Whatcom	2.791%	390,687
Puget Sound		
King	4.446%	622,372
Pierce	5.464%	764,974
Snohomish	3.853%	539,441
Southeast		
Kittitas	2.358%	330,136
Klickitat	2.588%	362,323
Asotin	0.787%	110,161
Benton	2.342%	327,823
Columbia	1.083%	151,641
Franklin	2.666%	373,245
Garfield	0.969%	135,701
Walla Walla	2.995%	419,337
Yakima	5.702%	798,334
Southwest		
Clark	3.803%	532,415
Cowlitz	1.719%	240,607
Grays Harbor	1.878%	262,890
Lewis	2.200%	307,984
Mason	2.029%	284,097
Pacific	0.918%	128,561
Skamania	0.662%	92,680
Thurston	2.725%	381,551
Wahkiakum	0.606%	84,861

The county arterial preservation program provides funding for maintenance and preservation of county arterial road surfaces and is used to fund chip seal and overlay programs. Counties typically spend two and one-half to three times as much on CAPP eligible expenses in comparison to CAPP receipts.²³ Counties identify and report those roads that receive CAPP funding as a requirement of the program.

D. Transportation Improvement Board (TIB) Program

Funding received from the Transportation Improvement Board (TIB) primarily goes to high volume urban arterials. The TIB receives approximately \$200 million per biennium to fund city (including state highways within cities) and county projects. The county share has been around \$20 million per year.²⁴

FIGURE 7

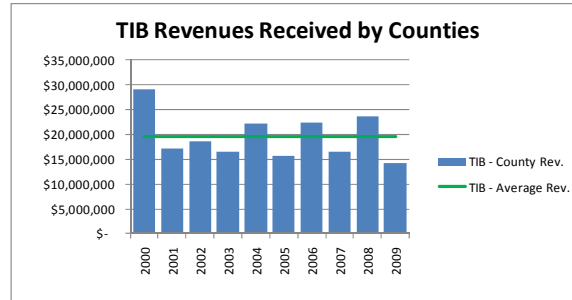


TABLE 28 summarizes county arterials with traffic counts greater than 5000 ADT with associated replacement costs. Annualized replacement costs for high volume county urban arterials exceeds historical TIB revenue by 3-to-1.

TABLE 28²⁵

County	Mileage	Replacement Cost
Asotin	5.7	\$ 538,660
Benton	0.5	30,060
Chelan	1.7	118,300
Clark	68.0	5,952,199
Cowlitz	0.4	27,300
Douglas	2.0	256,100
Franklin	1.0	132,200
Grant	1.8	220,300
Island	8.4	677,200
King	165.1	14,682,408
Kitsap	55.8	4,561,899
Kittitas	0.5	56,400
Lewis	4.3	293,740
Mason	0.7	92,300
Pierce	178.6	15,497,357
Skagit	2.3	152,320
Snohomish	121.4	8,711,028
Spokane	58.2	5,659,399
Thurston	35.1	2,889,219
Whatcom	17.0	1,185,200

²³ CRAB Annual Report

²⁴ Local Government Financial Reporting System, State Auditor’s Office

²⁵ Adams, Clallam, Columbia, Ferry, Garfield, Grays Harbor, Jefferson, Klickitat, Lincoln, Okanogan, Pacific, Pend Oreille, San Juan, Skamania, Stevens, Wahkiakum, Walla Walla, and Whitman Counties do not have arterials with ADT greater than 5,000 ADT.

Yakima	16.3	1,165,400
Grand Total	744.7	\$ 62,898,989

VII. Policy Recommendation

County transportation funding needs exceed available resources by approximately \$405 million per year. County road taxes, state shared MVFT, and federal grants are the major sources of funding for maintaining and preserving county roads. The historic partnership between cities and counties and the state to share MVFT was set aside when the legislature adopted the five cent increase in 2003 and the nine and one-half cent increase in 2005.

The legislature has provided local tax options that if approved by voters could make up a substantial portion of the funding gap. Local tax options, though, have not been seen as viable in many counties as a way to provide needed funding, to address overall road maintenance and preservation needs.

Counties should look to the state to help provide an equitable share of the funding for road maintenance and preservation. State sharing of MVFT with counties, as has historically been done, for the maintenance and preservation of roads is a necessity, particularly in counties where the tax base is small and local option taxes are not viable alternatives. In order to close the funding gap, counties should look for at least half of the funding gap to come from MVFT, if and when, any discussion about increasing MVFT occurs.

Supplementing existing funding distributions and programs should be considered first before establishing any new programs. New programs, though, are needed to address specific needs that are currently not funded with MVFT.

The following are recommendations to consider:

1. Increase the MVFT distribution to counties from 4.92 cents to 6.92 cents to be distributed through the existing "10-30-30" formula. Approximate annual revenue increase: \$62.5 million.
2. Increase the MVFT distribution to the County Arterial Preservation Program from 0.45 cents to 1.45 cents to be distributed under current methodology. Approximate annual revenue increase: \$31.3 million.
3. Increase the MVFT distribution to the Rural Arterial Program from 0.58 cents to 2.58 cents with the following changes to the program: Approximate annual revenue increase: \$62.5 million
 - The competitive grant program changed to a block grant program with counties receiving funding based on unincorporated land area and both rural and urban arterial road mileage.
 - In addition to arterials, include high volume access roads as eligible for funding.
 - In addition to truck routes on arterial roads, include truck routes on access roads as eligible for funding.
4. Provide a new MVFT distribution of one cent to address replacement of bridges and fish passage barriers. Approximate annual revenue increase: \$31.3 million.

Recommendation 1: Increase in regular MVFT distribution

TABLE 29

TWO CENT INCREASE IN REGULAR DISTRIBUTION TO COUNTIES

Region	County	Current Distribution	Two cent Added	Total Distribution
Northeast	Adams	\$ 3,981,342	\$ 1,708,875	\$ 5,690,217
	Chelan	\$ 2,269,520	\$ 974,125	\$ 3,243,645
	Douglas	\$ 3,583,820	\$ 1,538,250	\$ 5,122,070
	Ferry	\$ 1,738,616	\$ 746,250	\$ 2,484,866
	Grant	\$ 6,213,585	\$ 2,667,000	\$ 8,880,585
	Lincoln	\$ 4,101,182	\$ 1,760,313	\$ 5,861,495
	Okanogan	\$ 3,342,976	\$ 1,434,875	\$ 4,777,851
	Pend Oreille	\$ 1,600,866	\$ 687,125	\$ 2,287,991
	Spokane	\$ 9,032,065	\$ 3,876,750	\$ 12,908,815
	Stevens	\$ 3,678,031	\$ 1,578,688	\$ 5,256,719
	Whitman	\$ 4,109,918	\$ 1,764,063	\$ 5,873,981

Northeast Total		\$ 43,651,921	\$ 18,736,313	\$ 62,388,234
Northwest	Clallam	\$ 1,912,768	\$ 821,000	\$ 2,733,768
	Island	\$ 2,272,286	\$ 975,313	\$ 3,247,599
	Jefferson	\$ 1,394,824	\$ 598,688	\$ 1,993,512
	Kitsap	\$ 5,282,829	\$ 2,267,500	\$ 7,550,329
	San Juan	\$ 917,506	\$ 393,813	\$ 1,311,319
	Skagit	\$ 3,202,606	\$ 1,374,625	\$ 4,577,231
	Whatcom	\$ 3,946,395	\$ 1,693,875	\$ 5,640,270
Northwest Total		\$ 18,929,214	\$ 8,124,813	\$ 27,054,027
Puget Sound	King	\$ 13,738,994	\$ 5,897,063	\$ 19,636,057
	Pierce	\$ 11,156,845	\$ 4,788,750	\$ 15,945,595
	Snohomish	\$ 9,929,330	\$ 4,261,875	\$ 14,191,205
Puget Sound Total		\$ 34,825,169	\$ 14,947,688	\$ 49,772,857
Southeast	Asotin	\$ 1,604,798	\$ 688,813	\$ 2,293,611
	Benton	\$ 3,100,386	\$ 1,330,750	\$ 4,431,136
	Columbia	\$ 1,421,762	\$ 610,250	\$ 2,032,012
	Franklin	\$ 2,781,785	\$ 1,194,000	\$ 3,975,785
	Garfield	\$ 1,272,364	\$ 546,125	\$ 1,818,489
	Kittitas	\$ 1,922,816	\$ 825,313	\$ 2,748,129
	Klickitat	\$ 2,641,269	\$ 1,133,688	\$ 3,774,957
	Walla Walla	\$ 2,881,675	\$ 1,236,875	\$ 4,118,550
	Yakima	\$ 5,765,389	\$ 2,474,625	\$ 8,240,014
Southeast Total		\$ 23,392,244	\$ 10,040,438	\$ 33,432,682
Southwest	Clark	\$ 6,619,845	\$ 2,841,375	\$ 9,461,220
	Cowlitz	\$ 2,335,191	\$ 1,002,313	\$ 3,337,504
	Grays Harbor	\$ 2,304,467	\$ 989,125	\$ 3,293,592
	Lewis	\$ 3,300,166	\$ 1,416,500	\$ 4,716,666
	Mason	\$ 2,208,799	\$ 948,063	\$ 3,156,862
	Pacific	\$ 1,353,470	\$ 580,938	\$ 1,934,408
	Skamania	\$ 854,310	\$ 366,688	\$ 1,220,998
	Thurston	\$ 5,013,008	\$ 2,151,688	\$ 7,164,696
	Wahkiakum	\$ 824,896	\$ 354,063	\$ 1,178,959
Southwest Total		\$ 24,814,152	\$ 10,650,750	\$ 35,464,902
Total		\$ 145,612,700	\$ 62,500,000	\$ 208,112,700

Recommendation 2: Increase in MVFT distribution to CAPP

TABLE 30

ONE CENT INCREASE IN DISTRIBUTION TO THE COUNTY ARTERIAL PRESERVATION PROGRAM

Region	County	Current Funding	One Cent Added	Total Program
Northeast	Adams	\$ 649,145	\$ 1,312,107	\$ 1,961,252
	Chelan	\$ 282,719	\$ 571,456	\$ 854,176
	Douglas	\$ 350,105	\$ 707,661	\$ 1,057,766
	Ferry	\$ 222,723	\$ 450,186	\$ 672,910
	Grant	\$ 998,539	\$ 2,018,331	\$ 3,016,870
	Lincoln	\$ 450,574	\$ 910,738	\$ 1,361,311
	Okanogan	\$ 485,718	\$ 981,774	\$ 1,467,493
	Pend Oreille	\$ 198,881	\$ 401,995	\$ 600,876
	Spokane	\$ 873,394	\$ 1,765,377	\$ 2,638,771
	Stevens	\$ 553,010	\$ 1,117,791	\$ 1,670,801
	Whitman	\$ 497,878	\$ 1,006,352	\$ 1,504,230
Northeast Total		\$ 5,562,687	\$ 11,243,767	\$ 16,806,455
Northwest	San Juan	\$ 103,022	\$ 208,238	\$ 311,260

	Clallam	\$ 153,509	\$ 310,286	\$ 463,796
	Island	\$ 258,184	\$ 521,863	\$ 780,048
	Jefferson	\$ 154,588	\$ 312,466	\$ 467,055
	Kitsap	\$ 377,712	\$ 763,464	\$ 1,141,176
	Skagit	\$ 422,993	\$ 854,988	\$ 1,277,981
	Whatcom	\$ 432,134	\$ 873,466	\$ 1,305,600
Northwest Total		\$ 1,902,144	\$ 3,844,771	\$ 5,746,915
Puget Sound	King	\$ 688,397	\$ 1,391,445	\$ 2,079,842
	Pierce	\$ 846,128	\$ 1,710,264	\$ 2,556,392
	Snohomish	\$ 596,668	\$ 1,206,035	\$ 1,802,703
Puget Sound Total		\$ 2,131,193	\$ 4,307,744	\$ 6,438,937
Southeast	Kittitas	\$ 365,159	\$ 738,090	\$ 1,103,248
	Klickitat	\$ 400,761	\$ 810,051	\$ 1,210,812
	Asotin	\$ 121,848	\$ 246,288	\$ 368,136
	Benton	\$ 362,600	\$ 732,918	\$ 1,095,518
	Columbia	\$ 167,728	\$ 339,025	\$ 506,753
	Franklin	\$ 412,841	\$ 834,469	\$ 1,247,310
	Garfield	\$ 150,097	\$ 303,389	\$ 453,487
	Walla Walla	\$ 463,823	\$ 937,517	\$ 1,401,339
	Yakima	\$ 883,027	\$ 1,784,847	\$ 2,667,873
Southeast Total		\$ 3,327,883	\$ 6,726,594	\$ 10,054,477
Southwest	Clark	\$ 588,897	\$ 1,190,328	\$ 1,779,226
	Cowlitz	\$ 266,133	\$ 537,930	\$ 804,062
	Grays Harbor	\$ 290,779	\$ 587,746	\$ 878,525
	Lewis	\$ 340,657	\$ 688,564	\$ 1,029,221
	Mason	\$ 314,235	\$ 635,159	\$ 949,394
	Pacific	\$ 142,200	\$ 287,426	\$ 429,626
	Skamania	\$ 102,512	\$ 207,206	\$ 309,718
	Thurston	\$ 422,028	\$ 853,039	\$ 1,275,067
	Wahkiakum	\$ 93,863	\$ 189,724	\$ 283,588
Southwest Total		\$ 2,561,305	\$ 5,177,123	\$ 7,738,428
Total		\$ 15,485,211	\$ 31,300,000	\$ 46,785,211

Recommendation 3: Increase in MVFT distribution to RAP

TABLE 31

TWO CENT INCREASE IN DISTRIBUTION TO THE RURAL ARTERIAL PROGRAM

Region	County	Current Distribution	Two cent Revised Dist.	Total Distribution
Northeast	Adams	Projects competitively awarded within regions	\$ 2,274,932	\$ 2,930,113
	Chelan		\$ 1,514,687	\$ 1,950,917
	Douglas		\$ 1,583,799	\$ 2,039,933
	Ferry		\$ 1,286,019	\$ 1,656,392
	Grant		\$ 3,330,764	\$ 4,290,024
	Lincoln		\$ 2,732,159	\$ 3,519,021
	Okanogan		\$ 3,036,015	\$ 3,910,387
	Pend Oreille		\$ 987,579	\$ 1,272,002
	Spokane		\$ 2,832,774	\$ 3,648,613
	Stevens		\$ 2,115,331	\$ 2,724,547
	Whitman	\$ 2,085,297	\$ 2,685,863	
Northeast Total		\$ 7,820,939	\$ 23,779,358	\$ 30,627,813
Northwest	Clallam		\$ 1,101,455	\$ 1,418,674

	Island		\$ 706,438	\$ 909,893
	Jefferson		\$ 1,011,141	\$ 1,302,349
	Kitsap		\$ 1,464,482	\$ 1,886,253
	San Juan		\$ 362,307	\$ 466,652
	Skagit		\$ 1,463,819	\$ 1,885,399
	Whatcom		\$ 1,877,915	\$ 2,418,754
Northwest Total		\$ 2,005,977	\$ 7,987,558	\$ 10,287,974
Puget Sound	King		\$ 2,859,794	\$ 3,683,415
	Pierce		\$ 2,424,484	\$ 3,122,736
	Snohomish		\$ 2,622,081	\$ 3,377,241
Puget Sound Total		\$ 1,222,275	\$ 7,906,360	\$ 10,183,391
Southeast	Asotin		\$ 605,917	\$ 780,421
	Benton		\$ 1,481,546	\$ 1,908,231
	Columbia		\$ 830,125	\$ 1,069,200
	Franklin		\$ 1,597,074	\$ 2,057,032
	Garfield		\$ 698,436	\$ 899,585
	Kittitas		\$ 1,468,595	\$ 1,891,551
	Klickitat		\$ 1,497,387	\$ 1,928,635
	Walla Walla		\$ 1,473,520	\$ 1,897,894
	Yakima		\$ 3,352,347	\$ 4,317,823
Southeast Total		\$ 4,256,435	\$ 13,004,947	\$ 16,750,371
Southwest	Clark		\$ 1,416,047	\$ 1,823,868
	Cowlitz		\$ 947,804	\$ 1,220,771
	Grays Harbor		\$ 1,297,271	\$ 1,670,885
	Lewis		\$ 1,926,908	\$ 2,481,857
	Mason		\$ 1,019,680	\$ 1,313,348
	Pacific		\$ 694,789	\$ 894,889
	Skamania		\$ 776,119	\$ 999,641
	Thurston		\$ 1,466,650	\$ 1,889,045
	Wahkiakum		\$ 276,512	\$ 356,147
Southwest Total		\$ 2,694,373	\$ 9,821,778	\$ 12,650,450
Total		\$ 18,000,000	\$ 62,500,000	\$ 80,500,000

Recommendation 4: New MVFT distribution for bridge replacement and fish barrier removal

The following list of bridges have a sufficiency rating less than 50 making them eligible for federal funding. Costs are based on an average of \$575 per square foot with an additional 25% added to account for additional width and length necessary to meet current functional and environmental requirements. The actual cost for individual bridge replacement projects can vary significantly.

TABLE 32
COUNTY BRIDGES ELIGIBLE FOR FEDERAL FUNDING

Federal Replacement Eligible		Suff.	
County/Bridge ID	Bridge Name	Rating	Repl. Cost
Adams County			\$ 9,049,013
2-1	KEYSTONE	46.16	\$ 458,563
186-1	SCHRAG	22.27	\$ 907,500
142-1	NORTH LUND	39.62	\$ 1,430,000
201-1	ROCK CREEK	41	\$ 907,500

197-1	GOTTLIEB HILLE	48.97	\$ 373,450
400-3	MCMANAMON	31.63	\$ 2,791,250
223-1	HOOPER STORE	31.83	\$ 482,625
23-1	KIESNER	49.02	\$ 715,000
30-1	KLEMMER	48.5	\$ 983,125
Asotin County			\$ 72,370,375
199100926	TEN MILE CREEK NO. 1	45.93	\$ 529,375
205700629	SOUTHWAY BRIDGE	45.05	\$ 71,841,000
Benton County			\$ 581,625
517000000	OAK ST CID BRIDGE	41.98	\$ 581,625
Chelan County			\$ 21,916,400
322	WEST MONITOR	5.04	\$ 1,716,000
325	MISSION CR-SUNSET HWY	49.87	\$ 660,000
607T	COWAN-ENTIAT R.	36.54	\$ 2,805,000
94120BR4	CHICKAMIN CREEK	9.3	\$ 351,656
2096.25	PESHASTIN	27.16	\$ 6,853,000
17550BR1	PESHASTIN CRK INGALLS	44.6	\$ 1,512,500
19400BR1	WEST CASHMERE	31.67	\$ 6,916,250
91460BR3	MOE RIDGE BRIDGE	18.36	\$ 393,181
15570BR1	OLD BLEWETT #1	12.54	\$ 401,500
24250BR1	KINGSBURY ROAD BRIDGE	45.19	\$ 307,313
Clallam County			\$ 2,833,875
000000065	CLALLAM SLOUGH BRIDGE	43.52	\$ 980,375
000000108	WEEL BRIDGE	43.68	\$ 1,051,875
000000230	TROUT CREEK BRIDGE	47.8	\$ 801,625
Clark County			\$ 730,056
338	DAYTON	40.39	\$ 730,056
Columbia County			\$ 1,538,556
20410002	BAILEYSBURG	42.78	\$ 1,069,956
22570001	NEACE	39.81	\$ 468,600
Cowlitz County			\$ 8,575,738
20.5D.5NE	OSTRANDER BRIDGE	44.58	\$ 929,500
20.5M.5SW	ALLENDER RD BRIDGE	44.28	\$ 600,738
16ISW	PACIFIC AVE N 1/2 BRIDGE	18.68	\$ 1,617,000
31.5NW	TOWER RD BRIDGE	48.58	\$ 5,428,500
Douglas County			\$ 481,250
218-0.98	BEAVER CREEK (BRETT)	49.93	\$ 481,250
Ferry County			\$ 1,916,475
620-2.31	CURLEW	49.45	\$ 1,916,475
Franklin County			\$ 1,027,263
3	HOLLINGSWORTH ROAD	45.94	\$ 463,925
926-7.20	FILBERT ROAD	31.7	\$ 563,338
Grant County			\$ 1,354,100
326	G NW @ West Canal	47.59	\$ 805,475
7833/1.5	W NW RAILROAD CUT	33.42	\$ 548,625
Grays Harbor County			\$ 12,183,325
32E	CEDAR CREEK BRIDGE	33.17	\$ 1,343,100
364C	NEWMAN CREEK BRIDGE (4)	48.76	\$ 561,000
4392/1.4	GARRARD CREEK BRIDGE	26.95	\$ 375,375
5011	BLACK CREEK BRIDGE (7)	2	\$ 334,263
5044	ROBERSON BR (HEISE RD)	42.67	\$ 2,521,750
509A	CHEHALIS R OVFL-PORTER	49.56	\$ 3,479,850
9725/2.2	GARRARD CREEK BRIDGE	36.32	\$ 713,969
7531/0.8	GARRARD CREEK BRIDGE	34.8	\$ 1,193,500
9423/9.0	CAMP CREEK BRIDGE	48.24	\$ 511,500
6579/3.9	DRAINAGE BRIDGE	41.75	\$ 500,844

18/28A	BUSH CREEK BRIDGE	27.77	\$ 375,375
3194	DELEZENNE CREEK BR (3)	47.93	\$ 272,800
King County			\$ 79,347,538
10	KIMBALL CREEK	44.88	\$ 309,375
16	WALTER SHULTS	7.75	\$ 278,438
2	MILLER RIVER BR	35.68	\$ 2,633,400
228F	SIKES LAKE TRESTLE	39.66	\$ 3,914,625
24	SOUTH PARK BRIDGE	4	\$ 33,570,625
28	BERRYDALE OX	31.87	\$ 1,660,313
3084	FIFTEEN MILE CREEK	30.38	\$ 381,563
3106	SUNDAY CREEK	21.04	\$ 770,000
3109	UPPER PRESTON	37.33	\$ 940,500
3110	BARING BRIDGE	10.69	\$ 1,940,125
3165A	ALVORD "T"	4.18	\$ 3,497,656
3166A	ISSAQUAH CREEK	49.17	\$ 846,450
3201	DUVALL SLOUGH	49.84	\$ 10,543,500
333A	BANDARET	9.25	\$ 1,010,625
359C	PATTON BRIDGE	29.78	\$ 7,095,000
593C	KANASKAT OXING	42.08	\$ 2,428,594
5007	FIFTEEN MILE CREEK	48.81	\$ 1,056,000
3051	JUDD CREEK	49.39	\$ 6,105,000
95011	LAKE DOROTHY OVERFLOW	17.55	\$ 365,750
Kitsap County			\$ 2,980,794
210000031	STAVIS BAY ROAD BRIDGE	41.22	\$ 724,419
210000077	Southworth Drive Bridge	36.14	\$ 1,830,125
210000078	Lake Symington Bridge	25.16	\$ 426,250
Kittitas County			\$ 2,046,000
210000013	MANASTASH RD-MANASTASH C	48.7	\$ 2,046,000
Klickitat County			\$ 6,715,569
046700033	ROOSEVELT OVERPASS	48.06	\$ 962,500
140100336	MARVEL	48.86	\$ 358,944
703901502	WAHKIACUS BIG KLICKITAT	49.71	\$ 1,280,125
901001564	ROCK CREEK	49.61	\$ 646,250
B-36161	NORTHWESTERN	32.03	\$ 3,467,750
Lewis County			\$ 23,628,138
B-11	CHANDLER MP 0.03	34.5	\$ 3,869,250
192401	JACKSON HWY MP 4.49	30.93	\$ 2,722,500
192402	SKATE CREEK MP 0.53	46.03	\$ 7,007,000
484401	TOWNSEND MP 0.57	24.44	\$ 417,450
4174A	SHOREY MP 0.73	40.83	\$ 6,270,000
5177A	COUGHLIN MP 0.05	40.8	\$ 1,155,000
7195A	DAVISON MP 0.01	49.61	\$ 1,180,438
14203A	OSBORN MP 0.25	47.67	\$ 1,006,500
Lincoln County			\$ 1,866,563
17164B	GERALD ZELLMER BRIDGE	47.12	\$ 374,963
32222A	COAL CREEK BRIDGE	44.38	\$ 1,004,850
7195F	BLENZ BRIDGE	45.18	\$ 486,750
Mason County			\$ 4,066,288
103	WEAVER CREEK 1	8.73	\$ 1,303,088
104	HUNTER CREEK	3	\$ 1,287,000
3	TAHUYA RIVER 2	2	\$ 1,476,200
Pacific County			\$ 3,454,481
419	FERN CR.	40.32	\$ 675,675
552	SMITH ANDERSON	46.25	\$ 530,888
654	HECKARD	41.68	\$ 475,750
645	LEBAM	49.94	\$ 1,772,169

Pend Oreille County			\$ 57,770,625
80	IONE BRIDGE	14.38	\$ 14,836,250
566	SULLIVAN LAKE INLET	46.76	\$ 750,750
582	WEST BRANCH NO 3	47.62	\$ 317,625
565	USK BRIDGE	23.92	\$ 41,556,969
541	NORTH FORK CALISPEL CR.	33.16	\$ 309,031
Pierce County			\$ 46,198,213
23164-B	TACOMA RAIL MTN. DIV. OC	49.05	\$ 5,692,500
28183-A	NORTH FORK MUCK CREEK	32.78	\$ 455,400
20193-B	ENCHANTED ISLAND	46.38	\$ 849,750
28210-A	HERRON BAY	35.01	\$ 919,875
25174-A	CLAY CITY	45.57	\$ 928,125
24164-A	MASHELL RIVER	47.85	\$ 2,227,500
35186-C	CARBON RIVER (KOLISCH)	47.26	\$ 1,340,625
21211-A	FOX ISLAND	33.33	\$ 29,493,750
1172-C	LACAMAS CREEK	26.38	\$ 402,188
18204-A	PUYALLUP RIVER (66 TH AVE)	37.54	\$ 7,191,094
24202-A	CHAMBERS CREEK	44.73	\$ 1,027,813
San Juan County			\$ 1,183,325
H-2	DEER HARBOR	47.25	\$ 883,025
I-5	MORAN PARK	40.98	\$ 300,300
Skagit County			\$ 41,222,844
F-1	FRIDAY CREEK 4TH BRIDGE	49.9	\$ 838,750
S-14	FRIDAY CREEK 3RD BRIDGE	49.9	\$ 838,750
W-2	FRIDAY CREEK 7TH BRIDGE	48.81	\$ 1,006,500
S-8	NORTH FORK BRIDGE	31.48	\$ 11,979,000
W-7	ANACORTES FERRY DOCK	22.86	\$ 2,114,063
W-6	GUEMES ISLAND FERRY DOCK	7.45	\$ 1,701,563
T-6	BURL NORTHERN OVERPASS	49.88	\$ 19,503,000
MC-2	NOOKACHAMPS BIG LAKE	42.11	\$ 1,349,906
M-8	DITCH PULVER ROAD	45.63	\$ 643,500
O-11	SAMISH RIVER PRAIRIE RD	47.79	\$ 1,247,813
Skamania County			\$ 1,361,250
453500005	BUTLER EDDY BRIDGE	41.12	\$ 1,361,250
Snohomish County			\$ 39,256,731
2147000010	CARPENTER CREEK #448	38.27	\$ 457,875
219300005	RILEY SLOUGH #155	49.43	\$ 2,549,250
219300017	MAY CREEK #572	37.1	\$ 435,531
360600011	GRANITE FALLS	44.86	\$ 4,675,000
3912000049	SWAMP CREEK #504	17.57	\$ 656,769
395900055	SWAMP CREEK #503	47.55	\$ 642,675
659900010	PILCHUCK RIVER #633	35.33	\$ 4,408,250
659900066	HOWARD CREEK	34.47	\$ 1,111,344
6620000012	CATTLE PASS #183	41.06	\$ 956,175
713700055	BLACK CREEK #547	43.6	\$ 1,639,138
782300004	S.F. SAUK RIVER #540	20.8	\$ 1,125,300
782300005	S.F. SAUK RIVER #539	22.06	\$ 706,063
7852000025	MARTEN CREEK	25.55	\$ 1,278,888
9210000064	NORTH CREEK #522	45.4	\$ 490,188
925700001	JIM CREEK #42	33.33	\$ 876,563
931900072	SWAMP CREEK #546	13.01	\$ 761,063
931900073	SWAMP CREEK #505	16.12	\$ 723,250
935700030	COAL CREEK	40.44	\$ 1,251,250
942500015	WOODS CREEK #446	39.26	\$ 648,313
957100084	SAUK RIVER #414	31.72	\$ 6,423,863
958000044	PILCHUCK RIVER #581	45.57	\$ 1,845,938

966500005	GREGORY ROAD	25.72	\$ 642,675
970700107	DEER CREEK #670	24.76	\$ 3,342,625
973300061	TROUT CREEK #494	28.25	\$ 1,608,750
Spokane County			\$ 30,432,394
119	ELK-CHATTAROY OVER L SPO	40.77	\$ 1,376,375
12	IDAHO RD OV SF ROCK CRK	39.92	\$ 655,463
288	SUNSET HWY OV W BR DEEP	35.97	\$ 527,313
411	7-MILE OVER COULEE CREEK	39.62	\$ 804,375
423000835	CHATTEROY/LITTLE SPOK R	40.1	\$ 798,188
498	L SPO DR OVER L SPO RIV	41.79	\$ 1,608,750
53	CHRISTENSEN RD OVER DP C	45.1	\$ 924,000
617000289	WELLS RD OVER SANDERS CR	47.21	\$ 536,250
88	CHENEY-SPO OVER UP&BN RR	49.8	\$ 9,025,500
900003078	CHATTAROY OV DRAGOON CR.	21.45	\$ 268,125
306	FRIDEGER ROAD	42.8	\$ 536,250
8	L SPO DR OVER L SPO RIV	35.07	\$ 1,644,500
242	APPLEWAY BRIDGE OV SPO R	4	\$ 9,856,000
499	MONROE RD OVER DRAGOON C	46.6	\$ 701,869
137	BRUCE RD OVER PEONE CRK	32.78	\$ 1,169,438
Stevens County			\$ 2,464,275
130000913	BARSTOW	43.04	\$ 1,358,775
526000163	OLD ARDEN BRIDGE	49.31	\$ 1,105,500
Thurston County			\$ 3,956,150
110000415	OLY-YELM RD.RR.OC	38.92	\$ 3,271,125
230000408	HOLMES ISLAND BRIDGE	47.23	\$ 685,025
Wahkiakum County			\$ 3,606,075
26	ELOCHOMAN RIVER-BEAVER	36.35	\$ 1,278,750
70	WAHAKIUM CO FERRY RAMP	45.07	\$ 664,125
612	COVERED BRIDGE GRAYS RIV	42.2	\$ 1,663,200
Walla Walla County			\$ 8,240,994
201	GANGUET	47.9	\$ 595,925
34	GOBLE	40.01	\$ 608,988
731	GARDENA	18.17	\$ 2,495,625
773	LOWDEN	44.04	\$ 2,499,750
1325	DELL SHARP	47.29	\$ 1,525,906
364	KEN NOBLE	43.4	\$ 514,800
Whatcom County			\$ 17,913,156
0315	TEN MILE CR	47.42	\$ 627,000
0333	SULPHUR CREEK	14.13	\$ 893,750
0385	JACKSON RD.	40.04	\$ 1,023,000
0496	SMITH CREEK	46.11	\$ 1,905,750
281	NOOKSACK RIVER	48.43	\$ 4,397,250
336	FERRY SLIP APPR	49.48	\$ 577,500
386	MIDDLE FORK	46.64	\$ 4,433,000
1366	GOOSEBERRY FERRY SLIP	40.45	\$ 577,500
1291	LUMMI ISLAND FERRY SLIP	45.28	\$ 1,056,000
809	SOUTH FORK	11.99	\$ 2,422,406
Whitman County			\$ 3,614,875
0140	NEEL	48.56	\$ 775,500
102000170	BRUCE	47.36	\$ 759,688
360500019	ZARBACH	49.43	\$ 330,000
700500576	AUNE	24.66	\$ 646,250
906000421	EDMONDSON	44.45	\$ 536,250
941000219	BABINSKI	49.44	\$ 567,188
Yakima County			\$ 28,966,506
34	NACHES ROAD SOUTH #34	48.36	\$ 438,075

160	HILLCREST DRIVE #160	33.27	\$ 1,959,375
398	PARKER HGHTS RD.,W. #398	39.61	\$ 1,850,063
460	OLD NACHES HIGHWAY #460	31.82	\$ 1,195,150
473	POWERHOUSE ROAD,WEST#473	49.21	\$ 726,000
476	WESLEY ROAD #476	32.69	\$ 847,550
485	MEYERS RD.,N. #485	10	\$ 9,421,500
502	MEYERS RD.,N. #502	28.79	\$ 1,353,000
700	DONALD-WAPATO ROAD #700	47.74	\$ 640,200
759	REST HAVEN ROAD #759	48.63	\$ 807,813
1291	ESCHBACH PARK #1291	42.84	\$ 849,063
1355	FORT ROAD #1355	44.79	\$ 3,735,875
166	TERRACE HTS DR #166	32.29	\$ 2,238,844
621	GREEN VALLEY ROAD #621	34.6	\$ 823,969
712	TULE ROAD #712	45.39	\$ 1,340,625
801	OLD NACHES HIGHWAY #801	46.41	\$ 739,406
Total			\$ 544,850,831

ATTACHMENT A: Annual Road Maintenance Need by County

Annual Road Maintenance Need						
County	Arterial Roads		Access Roads		Total	
	Mileage	Need	Mileage	Need	Mileage	Need
Adams	668	\$ 11,355,633	1,107	\$ 10,783,796	1,776	\$ 22,139,428
Asotin	173	\$ 3,127,616	227	\$ 2,663,746	400	\$ 5,791,362
Benton	349	\$ 6,744,552	512	\$ 7,029,884	861	\$ 13,774,436
Chelan	238	\$ 4,935,274	415	\$ 5,387,019	653	\$ 10,322,293
Clallam	130	\$ 2,716,945	355	\$ 5,509,541	485	\$ 8,226,486
Clark	440	\$ 13,726,189	677	\$ 13,081,757	1,116	\$ 26,807,946
Columbia	230	\$ 3,759,533	273	\$ 2,382,467	503	\$ 6,142,000
Cowlitz	223	\$ 5,963,259	311	\$ 5,244,382	534	\$ 11,207,641
Douglas	438	\$ 8,200,495	1,192	\$ 8,686,668	1,630	\$ 16,887,162
Ferry	231	\$ 3,910,901	508	\$ 3,470,930	739	\$ 7,381,831
Franklin	353	\$ 6,400,149	636	\$ 7,449,558	989	\$ 13,849,707
Garfield	213	\$ 3,346,936	234	\$ 1,840,487	447	\$ 5,187,423
Grant	918	\$ 17,346,382	1,609	\$ 17,745,851	2,527	\$ 35,092,234
Grays Harbor	262	\$ 4,893,222	302	\$ 4,315,646	563	\$ 9,208,868
Island	216	\$ 5,320,986	368	\$ 6,153,338	583	\$ 11,474,324
Jefferson	138	\$ 2,485,944	259	\$ 3,512,347	396	\$ 5,998,291
King	518	\$ 18,690,646	1,240	\$ 25,405,771	1,758	\$ 44,096,418
Kitsap	313	\$ 11,560,566	629	\$ 12,753,067	942	\$ 24,313,634
Kittitas	310	\$ 5,634,222	254	\$ 3,251,974	564	\$ 8,886,197
Klickitat	376	\$ 6,962,197	709	\$ 6,985,152	1,084	\$ 13,947,349
Lewis	292	\$ 6,489,924	758	\$ 11,323,134	1,050	\$ 17,813,058
Lincoln	658	\$ 10,535,404	1,343	\$ 12,271,487	2,001	\$ 22,806,891
Mason	273	\$ 5,965,742	345	\$ 5,042,731	618	\$ 11,008,474
Okanogan	513	\$ 8,511,798	871	\$ 8,709,411	1,384	\$ 17,221,209
Pacific	130	\$ 2,768,868	220	\$ 3,163,244	351	\$ 5,932,112
Pend Oreille	181	\$ 3,230,945	379	\$ 4,035,235	560	\$ 7,266,180
Pierce	676	\$ 24,459,370	875	\$ 17,659,346	1,550	\$ 42,118,716
San Juan	87	\$ 1,534,316	184	\$ 2,325,422	271	\$ 3,859,738
Skagit	355	\$ 7,623,677	444	\$ 6,765,241	799	\$ 14,388,918
Skamania	86	\$ 1,530,953	153	\$ 2,055,963	238	\$ 3,586,915
Snohomish	519	\$ 16,547,191	1,142	\$ 22,892,589	1,661	\$ 39,439,780
Spokane	798	\$ 19,655,761	1,741	\$ 21,475,738	2,539	\$ 41,131,499
Stevens	562	\$ 10,075,944	929	\$ 9,504,546	1,491	\$ 19,580,490
Thurston	340	\$ 9,111,895	690	\$ 12,168,202	1,031	\$ 21,280,097
Wahkiakum	85	\$ 1,673,255	58	\$ 789,873	144	\$ 2,463,128
Walla Walla	464	\$ 8,635,706	498	\$ 5,814,327	962	\$ 14,450,034
Whatcom	361	\$ 8,448,927	591	\$ 9,253,348	952	\$ 17,702,274
Whitman	618	\$ 10,187,393	1,291	\$ 9,593,222	1,909	\$ 19,780,615
Yakima	753	\$ 15,311,337	905	\$ 11,119,618	1,658	\$ 26,430,955
Grand Total	14,485	\$ 319,380,051	25,234	\$ 329,616,060	39,719	\$ 648,996,111

ATTACHMENT B: Annual/6-Year Road Preservation Need by County

Annual Road Preservation Need							6-Yr Need
County	Arterial Roads		Access Roads		Total		
	Mileage	Need	Mileage	Need	Mileage	Need	
Adams	668	\$ 20,210,135	1,107	\$ 10,221,960	1,776	\$ 30,432,095	\$ 182,592,567
Asotin	173	\$ 6,118,147	227	\$ 2,795,681	400	\$ 8,913,828	\$ 53,482,967
Benton	349	\$ 11,715,949	512	\$ 5,655,483	861	\$ 17,371,432	\$ 104,228,594
Chelan	238	\$ 8,025,375	415	\$ 4,244,992	653	\$ 12,270,367	\$ 73,622,203
Clallam	130	\$ 4,339,557	355	\$ 3,481,154	485	\$ 7,820,711	\$ 46,924,267
Clark	440	\$ 21,880,252	677	\$ 10,757,840	1,116	\$ 32,638,091	\$ 195,828,547
Columbia	230	\$ 7,000,435	273	\$ 2,524,350	503	\$ 9,524,785	\$ 57,148,713
Cowlitz	223	\$ 8,707,496	311	\$ 3,479,719	534	\$ 12,187,215	\$ 73,123,288
Douglas	438	\$ 14,804,651	1,192	\$ 11,637,054	1,630	\$ 26,441,705	\$ 158,650,233
Ferry	231	\$ 7,027,195	508	\$ 4,686,344	739	\$ 11,713,539	\$ 70,281,235
Franklin	353	\$ 11,124,473	636	\$ 6,147,348	989	\$ 17,271,821	\$ 103,630,924
Garfield	213	\$ 6,391,838	234	\$ 2,160,741	447	\$ 8,552,579	\$ 51,315,475
Grant	918	\$ 29,226,624	1,609	\$ 15,155,763	2,527	\$ 44,382,386	\$ 266,294,317
Grays Harbor	262	\$ 8,267,223	302	\$ 2,898,923	563	\$ 11,166,146	\$ 66,996,875
Island	216	\$ 8,137,252	368	\$ 3,966,276	583	\$ 12,103,528	\$ 72,621,167
Jefferson	138	\$ 4,245,981	259	\$ 2,487,671	396	\$ 6,733,653	\$ 40,401,915
King	518	\$ 29,826,145	1,240	\$ 20,977,775	1,758	\$ 50,803,919	\$ 304,823,516
Kitsap	313	\$ 16,921,168	629	\$ 9,968,325	942	\$ 26,889,493	\$ 161,336,958
Kittitas	310	\$ 9,562,664	254	\$ 2,357,541	564	\$ 11,920,205	\$ 71,521,229
Klickitat	376	\$ 11,703,053	709	\$ 6,542,323	1,084	\$ 18,245,375	\$ 109,472,253
Lewis	292	\$ 10,124,468	758	\$ 7,389,473	1,050	\$ 17,513,941	\$ 105,083,649
Lincoln	658	\$ 19,956,257	1,343	\$ 12,395,178	2,001	\$ 32,351,434	\$ 194,108,606
Mason	273	\$ 9,217,786	345	\$ 3,223,361	618	\$ 12,441,147	\$ 74,646,884
Okanogan	513	\$ 15,487,214	871	\$ 8,039,664	1,384	\$ 23,526,877	\$ 141,161,265
Pacific	130	\$ 4,326,327	220	\$ 2,035,228	351	\$ 6,361,556	\$ 38,169,335
Pend Oreille	181	\$ 5,522,522	379	\$ 3,497,276	560	\$ 9,019,799	\$ 54,118,792
Pierce	676	\$ 39,935,688	875	\$ 15,153,915	1,550	\$ 55,089,602	\$ 330,537,615
San Juan	87	\$ 2,613,436	184	\$ 1,700,244	271	\$ 4,313,680	\$ 25,882,079
Skagit	355	\$ 12,403,875	444	\$ 4,745,443	799	\$ 17,149,317	\$ 102,895,905
Skamania	86	\$ 2,592,028	153	\$ 1,410,961	238	\$ 4,002,989	\$ 24,017,935
Snohomish	519	\$ 25,324,356	1,142	\$ 18,445,728	1,661	\$ 43,770,084	\$ 262,620,503
Spokane	798	\$ 32,771,745	1,741	\$ 19,510,038	2,539	\$ 52,281,782	\$ 313,690,694
Stevens	562	\$ 17,387,749	929	\$ 8,574,131	1,491	\$ 25,961,880	\$ 155,771,281
Thurston	340	\$ 14,192,765	690	\$ 9,088,358	1,031	\$ 23,281,123	\$ 139,686,739
Wahkiakum	85	\$ 2,719,918	58	\$ 538,962	144	\$ 3,258,881	\$ 19,553,285
Walla Walla	464	\$ 15,304,561	498	\$ 5,169,139	962	\$ 20,473,700	\$ 122,842,201
Whatcom	361	\$ 13,135,453	591	\$ 6,367,131	952	\$ 19,502,584	\$ 117,015,505
Whitman	618	\$ 18,753,282	1,291	\$ 11,917,225	1,909	\$ 30,670,507	\$ 184,023,040
Yakima	753	\$ 25,755,405	905	\$ 9,318,232	1,658	\$ 35,073,637	\$ 210,441,821
Grand Total	14,485	\$ 532,760,446	25,234	\$ 280,666,950	39,719	\$ 813,427,396	\$ 4,880,564,377