



Washington State
Association of
County Engineers



Helping counties improve their capacity to serve their citizens.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Presentation to the
Washington Transportation Commission
March 16, 2010

COUNTY ROAD PRESERVATION NEEDS AND COSTS

- ▶ **What is the total system counties are responsible for?**
- ▶ **In what condition are the major assets?**
- ▶ **What is the gap between current resources and what is needed to meet goals?**
- ▶ **What are the major preservation related issues?**

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Road Mileage (Arterial/Access by Rural/Urban)

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%		

- 39,719 total county road system miles.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Road Mileage (Arterial/Access by Rural/Urban)

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%		

- 85% of county road system is rural.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Road Mileage (Arterial/Access by Rural/Urban)

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%		

- 36% of county roads are arterials.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Road Mileage (Arterial/Access by Surface Type)

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%		

- Two-thirds of county road system is paved.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Road Mileage (Arterial/Access by Truck Route)

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%		

- The county freight and goods system (truck routes) accounts for nearly one-third of the county road system.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Road Mileage (Arterial/Access by Truck Route)

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%		

- Arterial truck routes are about one-fourth of the county road system.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Road Mileage (Arterial/Access by Traffic Volume)

ADT	Arterial	Access	Total	%
<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%		

- Three-fourths of the county road system is made up of low-volume roads which have the some of the highest safety issues.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Road Mileage (Arterial/Access by Traffic Volume)

ADT	Arterial	Access	Total	%
<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%		

- High volume arterial roads account for about 20% of the county road system.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Road Mileage (Traffic Volume >400 ADT)

Road Mileage	Arterial	Access	Total	%
Gravel or less	16	91	107	1%
BST	4,145	1,546	5,691	53%
Paved	3,425	1,493	4,918	46%
Total	7,586	3,130	10,717	
%	71%	29%		

- Nearly 40% of road mileage with volumes greater than 400 ADT have BST (chip seal) or less surface type.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

▶ Of the 39,719 miles of county roads:

- ▶ 14,485 (36%) are arterials.
- ▶ 11,444 (29%) are truck routes.
- ▶ 10,717 (27%) have volumes >400 ADT.
- ▶ 5,798 (15%) have volumes >400 ADT with BST or less surface type.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

- ▶ **Most counties program and account for road projects differently than WSDOT**
- ▶ **The majority of county road projects are similar to “preservation” because they typically provide for:**
 - ▶ increased structural base
 - ▶ increased pavement thickness
 - ▶ all-weather capabilities
 - ▶ safety improvements
 - ▶ shoulder widening
 - ▶ improved vertical and horizontal alignment
 - ▶ replacing obsolete bridges
 - ▶ environmental improvements

COUNTY ROAD PRESERVATION NEEDS AND COSTS

- ▶ This needs analysis has been calculated using cost factors developed and used for allocation of gas tax.
- ▶ Cost factors were developed in the mid 1980s and are indexed annually using the implicit price deflator.
- ▶ Counties maintain complete inventories of roadway features that are used in determining county gas tax allocations.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

County Road Annual Maintenance Need per mile by road type, surface and class

2009 Projected Costs Per Mile		Cost Factors				
		Rural			Urban	
Surface	Volume	All	Access	Arterial	Access	Arterial
Unimproved		\$ 1,180				
Graded		\$ 2,695				
Gravel			\$ 9,574	\$ 13,005		
BST & Less					\$ 15,518	\$ 34,862
BST			\$ 14,372	\$ 17,516		
Paved	All		\$ 19,054	\$ 25,159	\$ 22,550	
	< 5,000					\$ 50,633
	5,000 +					\$ 92,180

Source: 1983 Cost Factor Study - inflated to 2009 using Implicit Price Deflator

- These maintenance costs are likely low (particularly surfacing costs).

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Maintenance Annual Need (By Rural/Urban)

(x\$1,000)	Arterial	Access	Total	%
Rural	232,943	235,782	468,725	72%
Urban	86,437	93,834	180,271	28%
Total	319,380	329,616	648,996	
%	49%	51%		

- The overall maintenance need is calculated at \$650 million per year (approximately \$16,340 per mile).

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Maintenance Annual Need (By Rural/Urban)

(x\$1,000)	Arterial	Access	Total	%
Rural	232,943	235,782	468,725	72%
Urban	86,437	93,834	180,271	28%
Total	319,380	329,616	648,996	
%	49%	51%		

- Maintenance need for arterial and access roads are about evenly split.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Maintenance Annual Need (By Surface Type)

(x\$1,000)	Arterial	Access	Total	%
Gravel or less	21,685	100,435	122,120	19%
BST	165,029	134,596	299,625	46%
Paved	132,667	94,584	227,251	35%
Total	319,381	329,615	648,996	
%	49%	51%		

- Maintenance needs for BST (chip seal) and paved roads are over 80% of the total.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Maintenance Annual Need (By Truck Route)

(x\$1,000)	Arterial	Access	Total	%
Truck Route	213,263	23,650	236,913	37%
Non-Truck Route	106,117	305,966	412,083	63%
Total	319,380	329,616	648,996	
%	49%	51%		

- Maintenance needs for arterial truck routes account for one-third of the total need.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

County Road Annual Preservation Need per mile by road type, surface and class

2009 Projected Costs Per Mile	Cost Factors						
	Rural			Urban			
Surface	Access	Min Coll	Arterial	Access	Collector	Min Art	Arterial
Unpaved	\$ 397,279						
BST & Less		\$ 669,514	\$ 657,345	\$ 1,023,653	\$ 1,120,409	\$ 1,474,883	\$ 2,131,355
BST	\$ 461,546						
Paved	\$ 461,762	\$ 651,326	\$ 653,177	\$ 1,031,059	\$ 1,120,409	\$ 1,545,656	\$ 2,610,448

Source: 1983 Cost Factor Study - inflated to 2009 using Implicit Price Deflator

- Road replacement costs were developed several years ago and could be significantly low due to increased costs for fuel and asphalt, environmental costs, right-of-way and other costs.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

System Replacement (By Rural/Urban)

(x\$1,000,000)	Arterial	Access	Total	%
Rural	8,389	9,712	18,102	72%
Urban	2,766	4,321	7,087	28%
Total	11,156	14,033	25,189	
%	44%	56%		

- Total county road system replacement is calculated to be \$25 billion.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Preservation Annual Need (By Rural/Urban)

(x\$1,000)	Arterial	Access	Total	%
Rural	335,578	388,484	724,062	72%
Urban	110,642	172,851	283,493	28%
Total	446,220	561,335	1,007,555	
%	44%	56%		

- Based on 4% annual replacement cycle, the annual preservation need is calculated to be \$1 billion.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Preservation Annual Need (By Rural/Urban)

(x\$1,000)	Arterial	Access	Total	%
Rural	335,578	388,484	724,062	72%
Urban	110,642	172,851	283,493	28%
Total	446,220	561,335	1,007,555	
%	44%	56%		

- Arterial roads account for 44% of the total preservation need.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Preservation Annual Need (By Surface Type)

(x\$1,000)	Arterial	Access	Total	%
Gravel or less	45,107	226,119	271,226	27%
BST	251,223	187,952	439,175	44%
Paved	149,891	147,263	297,154	29%
Total	446,221	561,334	1,007,555	
%	44%	56%		

- Surfaced roads account for three-fourths of the total preservation need.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Preservation Annual Need (By Surface Type)

(x\$1,000)	Arterial	Access	Total	%
Gravel or less	45,107	226,119	271,226	27%
BST	251,223	187,952	439,175	44%
Paved	149,891	147,263	297,154	29%
Total	446,221	561,334	1,007,555	
%	44%	56%		

- Paved arterial roads account for 40% of the total preservation need.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Preservation Annual Need (By Truck Routes)

(x\$1,000)	Arterial	Access	Total	%
Truck Route	297,268	35,236	332,504	33%
Non-Truck Route	148,952	526,098	675,050	67%
Total	446,220	561,334	1,007,554	
%	44%	56%		

- Arterial truck routes account for about 30% of the annual preservation need.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Preservation Annual Need (by traffic volume)

(x\$1,000)	Arterial	Access	Total	%
<400	139,444	418,653	558,097	55%
400-4999	246,573	140,264	386,837	38%
5000+	60,203	2,417	62,620	6%
Total	446,220	561,334	1,007,554	
%	44%	56%		

- Roads >400 ADT account for 44% of the total need.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

Preservation Annual Need (by traffic volume)

(x\$1,000)	Arterial	Access	Total	%
<400	139,444	418,653	558,097	55%
400-4999	246,573	140,264	386,837	38%
5000+	60,203	2,417	62,620	6%
Total	446,220	561,334	1,007,554	
%	44%	56%		

- Arterials >400 ADT account for 30% of the total need.

COUNTY BRIDGE PRESERVATION NEEDS AND COSTS

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	
%	7%	93%		

Note: 660 county bridges are structurally or functionally obsolete

- **Counties own and maintain 3,307 bridges.**

COUNTY BRIDGE PRESERVATION NEEDS AND COSTS

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	
%	7%	93%		

Note: 660 county bridges are structurally or functionally obsolete

➤ **Less than 10% are posted.**

COUNTY BRIDGE PRESERVATION NEEDS AND COSTS

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	
%	7%	93%		

Note: 660 county bridges are structurally or functionally obsolete

- 20% are structurally or functionally obsolete.

COUNTY BRIDGE PRESERVATION NEEDS AND COSTS

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	
%	7%	93%		

Note: 660 county bridges are structurally or functionally obsolete

- One-third of bridges are on the federal aid system (higher classed arterial roads).

COUNTY BRIDGE PRESERVATION NEEDS AND COSTS

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	
%	6%	94%		

- One-half of bridge surface area is on the federal aid system.

COUNTY BRIDGE PRESERVATION NEEDS AND COSTS

Maintenance Annual Need for County Bridges

	Posted	Not Posted	Total	%
On Fed. Aid Route	121,250	1,842,966	1,964,216	51%
Off-System	109,357	1,787,289	1,896,646	49%
Total	230,607	3,630,255	3,860,862	
%	6%	94%		

- The annual maintenance need for county bridges is nearly \$4 million.

COUNTY BRIDGE PRESERVATION NEEDS AND COSTS

Preservation Annual Need for County Bridges

(x\$1,000)	Posted	Not Posted	Total	%
On Fed. Aid Route	5,949	90,426	96,376	51%
Off-System	5,366	87,695	93,060	49%
Total	11,315	178,121	189,436	
%	6%	94%		

- The annual preservation need for county bridges is \$189 million.

COUNTY BRIDGE PRESERVATION NEEDS AND COSTS

Preservation Annual Need for County Bridges

(x\$1,000)	Posted	Not Posted	Total	%
On Fed. Aid Route	5,949	90,426	96,376	51%
Off-System	5,366	87,695	93,060	49%
Total	11,315	178,121	189,436	
%	6%	94%		

- The preservation need is about equally split between on-system and off-system bridges.

COUNTY FERRY PRESERVATION NEEDS AND COSTS

County Ferry System	
Four Washington counties own and operate ferries as part of their local transportation network.	
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

- ▶ Four counties operate ferries:
 - ▶ *Pierce*
 - ▶ *Skagit*
 - ▶ *Wahkiakum*
 - ▶ *Whatcom*
- ▶ The Wahkiakum & Whatcom ferries are nearly 50 years old and are being considered for replacement.

Ferry data from 2008 CRAB ferry report (data from 2007)

COUNTY FERRY PRESERVATION NEEDS AND COSTS

Vessel Miles Traveled

County	Total
Pierce	37,139
Skagit	12,376
Wahkiakum	19,656
Whatcom	21,715
Grand Total	90,886

One-way trip vehicles carried

County	Total
Pierce	217,652
Skagit	199,497
Wahkiakum	62,347
Whatcom	257,560
Grand Total	737,056

Scheduled Runs (one-way)

County	Total
Pierce	9,176
Skagit	17,680
Wahkiakum	13,104
Whatcom	24,128
Grand Total	64,088

One-way trip drivers & passengers carried

County	Total
Pierce	430,496
Skagit	426,426
Wahkiakum	100,703
Whatcom	438,346
Grand Total	1,395,971

Ferry data from 2008 CRAB ferry report (data from 2007)

COUNTY FERRY PRESERVATION NEEDS AND COSTS

Ferry Annual Oper. & Maint.

County	Total
Pierce	\$ 3,417,576
Skagit	\$ 1,639,558
Wahkiakum	\$ 698,392
Whatcom	\$ 2,144,707
Grand Total	\$ 7,900,233

- ▶ Annual operation maintenance is based on historical costs and values.

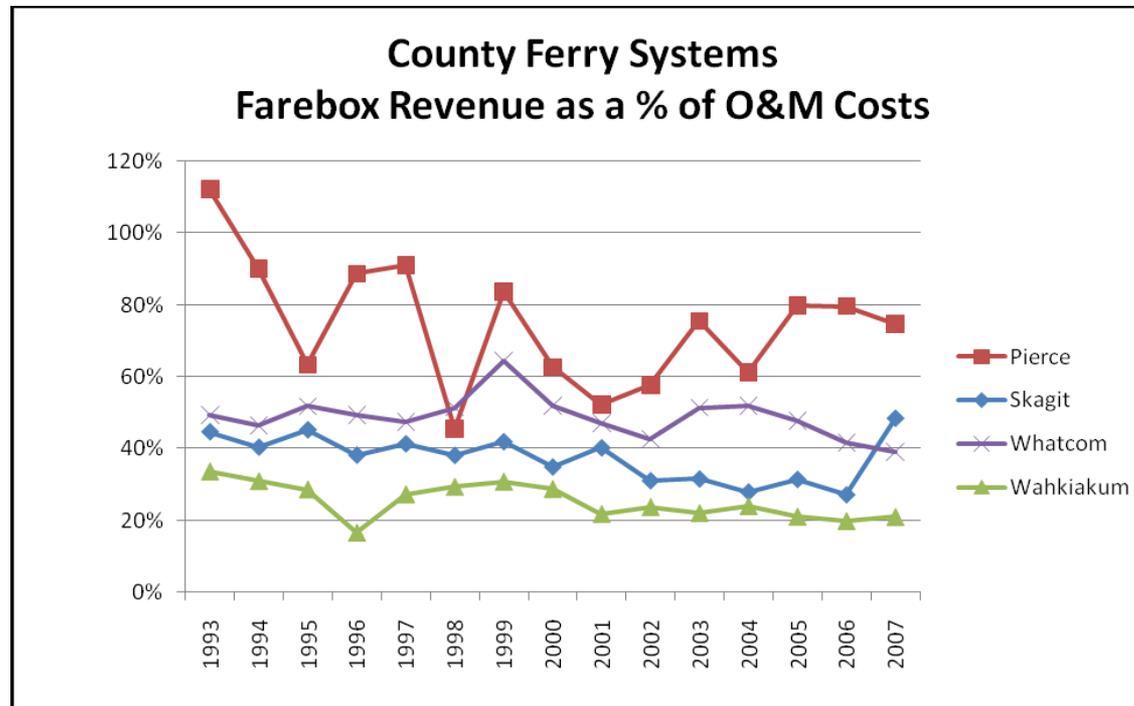
Annual Replacement Need

County	Total
Pierce	\$ 1,589,224
Skagit	\$ 555,096
Wahkiakum	\$ 223,600
Whatcom	\$ 794,720
Grand Total	\$ 3,162,640

- ▶ Actual costs for replacement of ferry infrastructure can only be determined after thorough evaluation.

Ferry data from 2008 CRAB ferry report (data from 2007)

COUNTY FERRY PRESERVATION NEEDS AND COSTS



- ▶ Fare box recovery runs between 20% and 75%.
- ▶ Wahkiakum receives a subsidy from the state.

COUNTY FISH PASSAGE BARRIER REMOVAL NEEDS & COSTS

- ▶ Removal of fish passage barriers is a significant environmental cost liability to counties.
- ▶ WSDOT is currently being sued to address the backlog of fish passage barriers on state roads which could lead to similar issues for counties.
- ▶ WSDOT reports average historical costs for fish barrier removal at \$412,000, with projected average costs over \$750,000.
- ▶ Recent projects by counties have project costs ranging from under \$100,000 to over \$500,000.

COUNTY FISH PASSAGE BARRIER REMOVAL NEEDS & COSTS

- ▶ Several counties have inventoried fish passage barriers while others do not have adequate inventories.
- ▶ WDFW collects inventories and has information from 15 western Washington counties totaling 1,988 fish passage barriers.
- ▶ Cost estimates are based on projected numbers of barriers and a wide range of historical project costs.

COUNTY FISH PASSAGE BARRIER REMOVAL NEEDS & COSTS

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	

- Based on 15 county inventories and road mileage, a projected total of 2,300 fish barriers is estimated (western Washington only).

COUNTY FISH PASSAGE BARRIER REMOVAL NEEDS & COSTS

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

- Historical average project costs range from \$100,000 or less to more than \$750,000 per project and could be significantly higher if a bridge is needed.

COUNTY FISH PASSAGE BARRIER REMOVAL NEEDS & COSTS

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	

- The potential costs for removal of fish passage barriers ranges from \$230 million to \$1.6 billion with an average assumed at \$400,000.

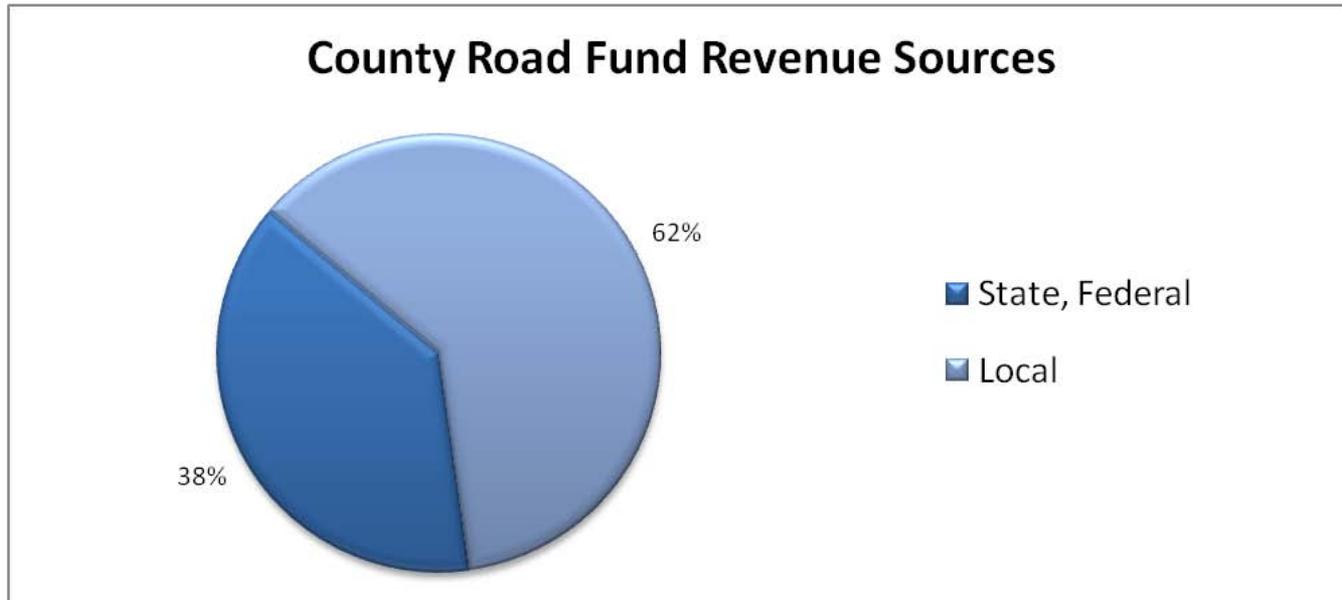
COUNTY FISH PASSAGE BARRIER REMOVAL NEEDS & COSTS

Fish Barrier Removal Cost Estimate

Counties	Barriers	Projected Costs			
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19 Counties ³	2,300 ⁴	A \$ 100	\$ 230,000	\$ 9,200	
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		C \$ 500	\$ 1,150,000	\$ 46,000	
		D \$ 700	\$ 1,610,000	\$ 64,400	

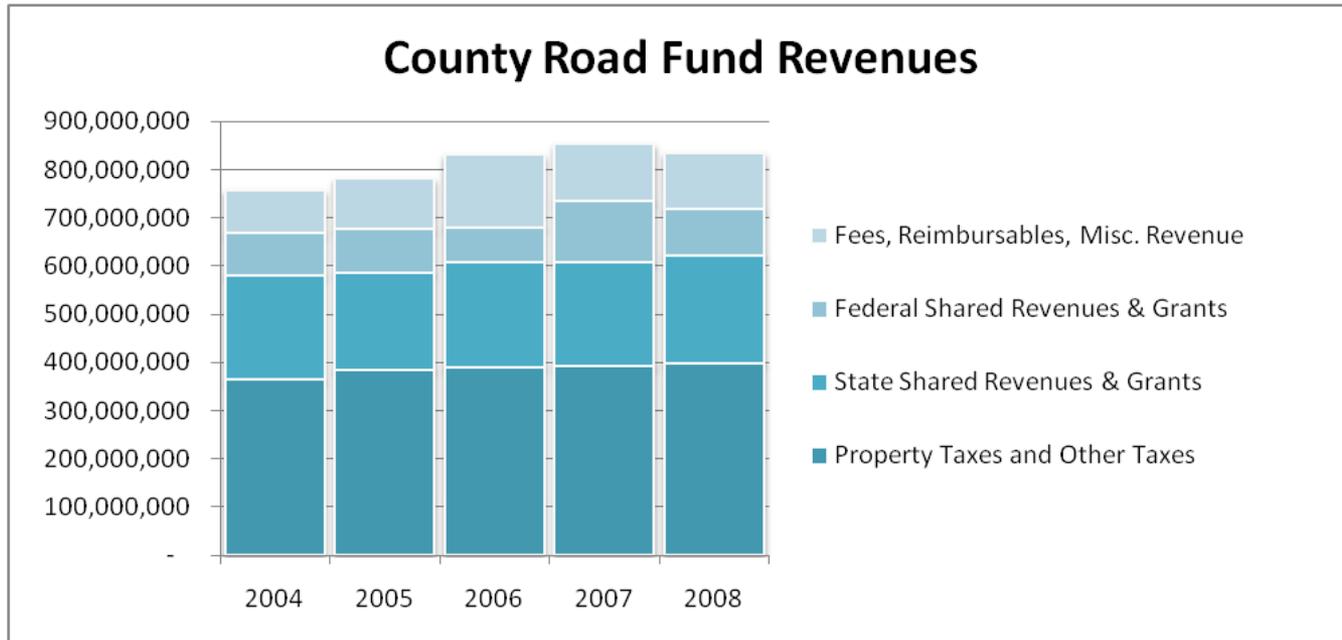
- The potential costs for removal of fish passage barriers ranges from \$9.2 million to \$64 million annually.

COUNTY ROAD REVENUES AND EXPENSES



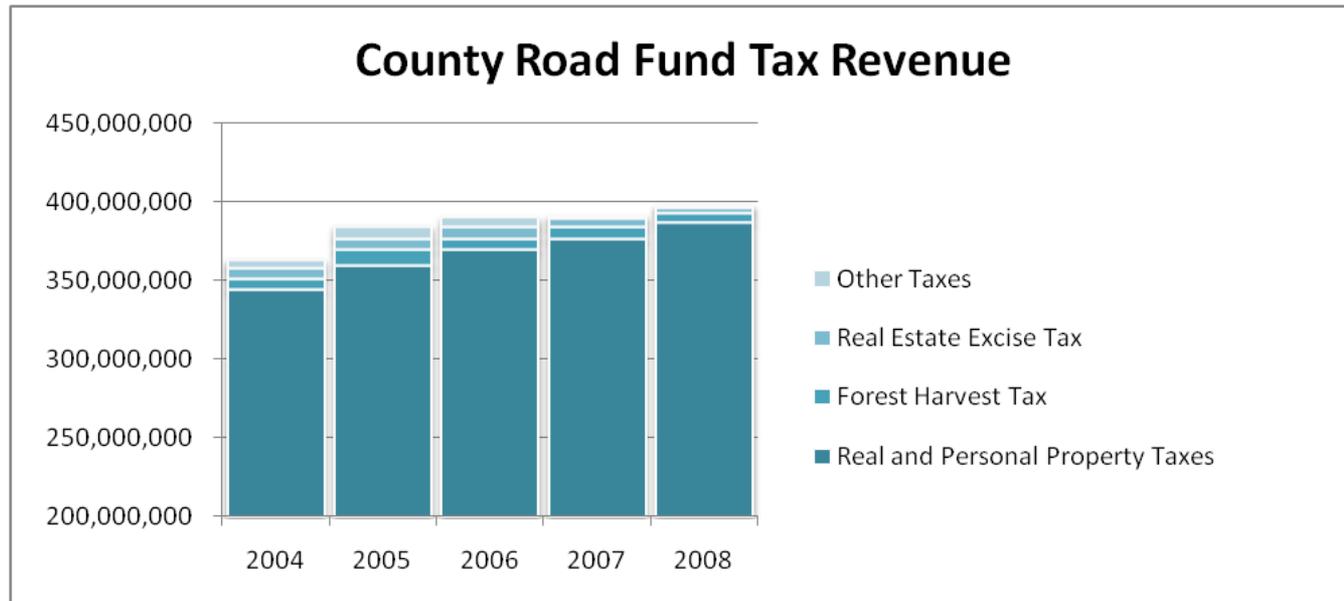
- Overall, counties receive the majority of road fund revenue from local sources.

COUNTY ROAD REVENUES AND EXPENSES



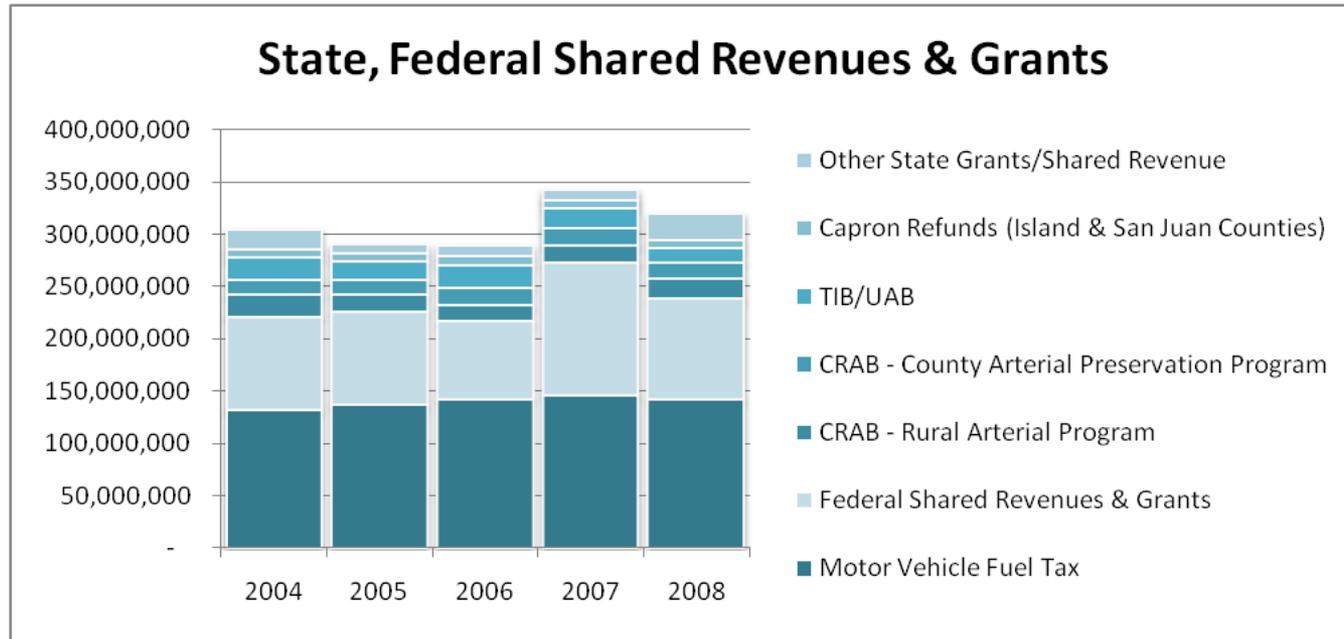
- The majority of county road revenue comes from local property taxes and state shared gas tax.

COUNTY ROAD REVENUES AND EXPENSES



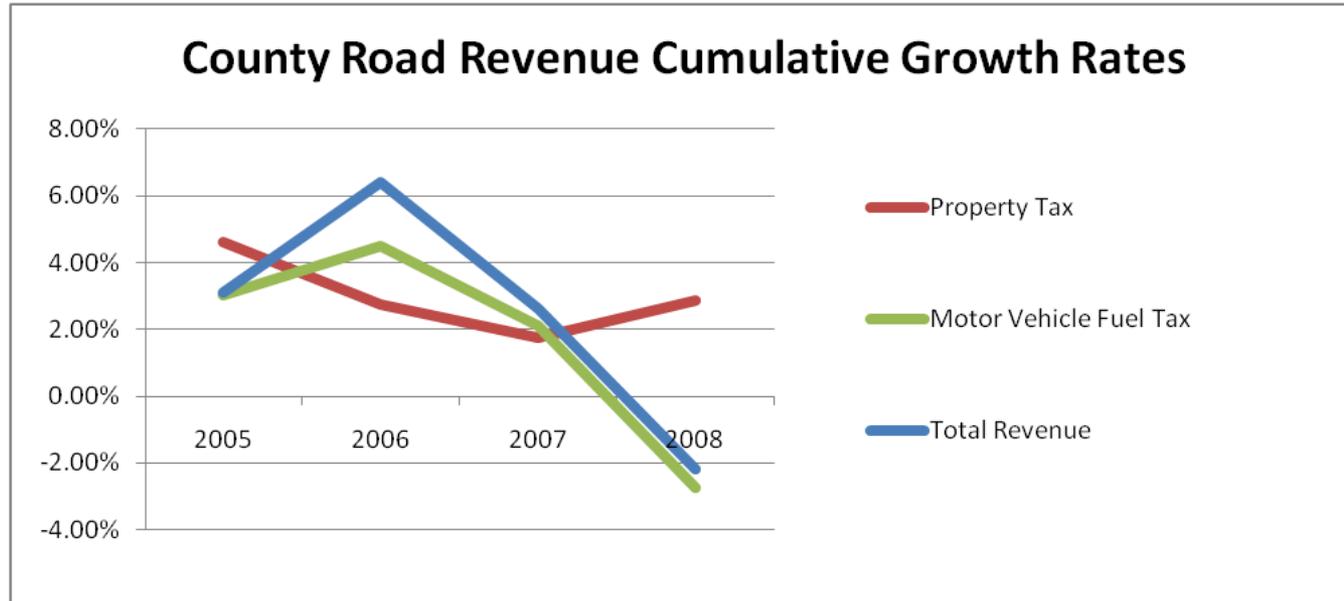
- County road property tax is the majority of tax revenues.

COUNTY ROAD REVENUES AND EXPENSES



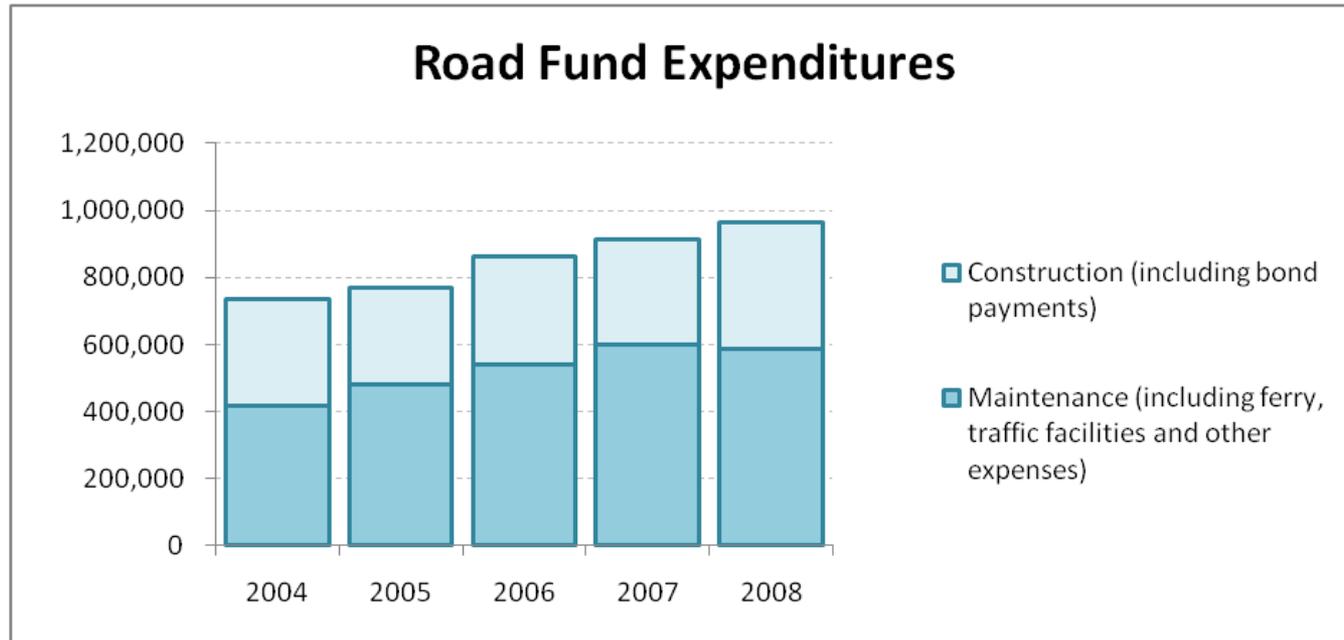
- State sources provide about 70% of the state/federal sources and 25% of all sources.
- Federal sources primarily come from grants and can fluctuate significantly from year to year.

COUNTY ROAD REVENUES AND EXPENSES



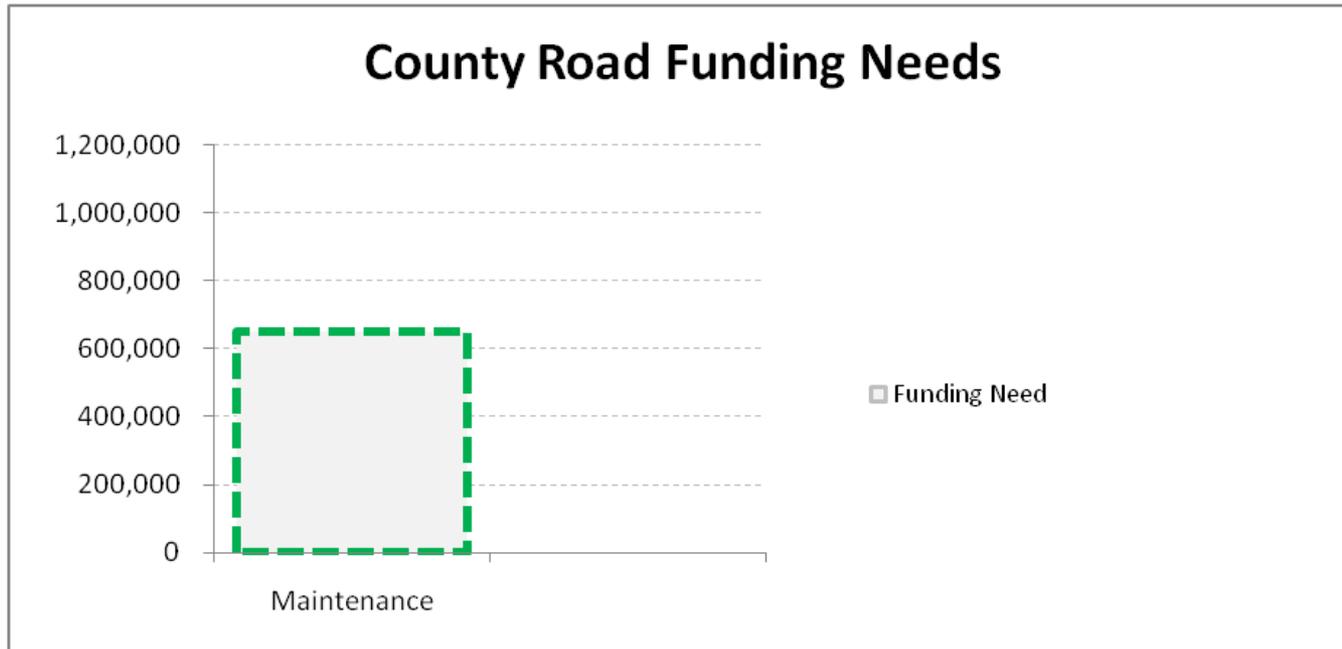
- Growth in the major revenue sources have either slow growth or negative growth.
- Overall total county revenues declined by 2% from 2007 to 2008.

COUNTY ROAD REVENUES AND EXPENSES



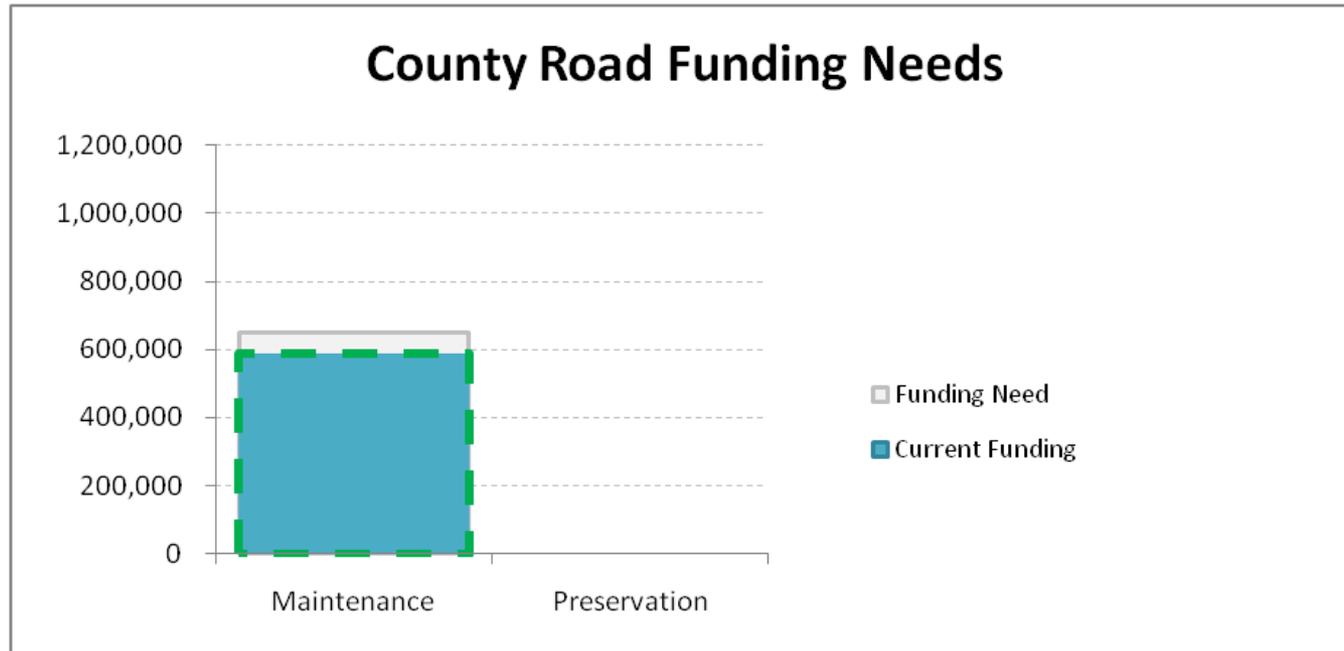
- Counties spent nearly \$900 million for road maintenance and construction (preservation) in 2008.
- Road maintenance expenditures declined by 2% from 2007 to 2008.

COUNTY ROAD REVENUES AND EXPENSES



- The total calculated need for road maintenance is about \$650 million annually.

COUNTY ROAD REVENUES AND EXPENSES



- Counties are spending \$590 million for road maintenance – about 91% of the calculated need.

COUNTY ROAD PRESERVATION NEEDS AND COSTS

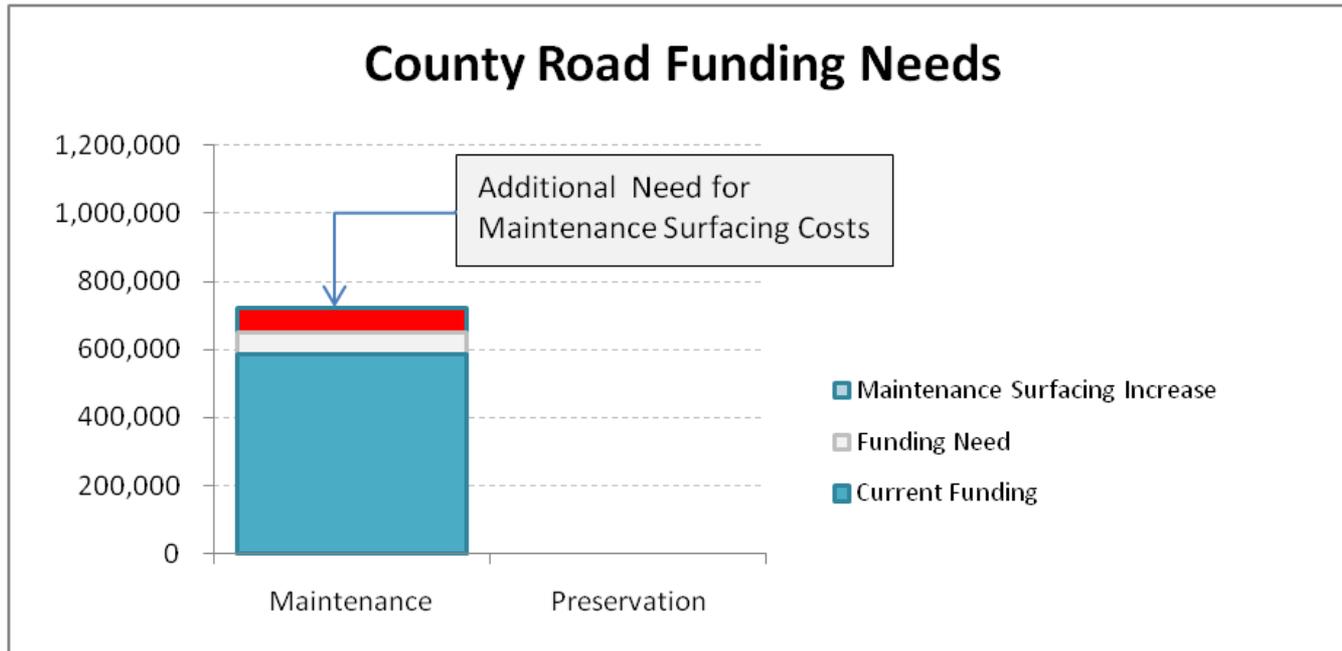
County Road Annual Maintenance Need per mile by road type, surface and class

2009 Projected Costs Per Mile		Cost Factors				
		Rural			Urban	
Surface	Volume	All	Access	Arterial	Access	Arterial
Unimproved		\$ 1,180				
Graded		\$ 2,695				
Gravel			\$ 9,574	\$ 13,005		
BST & Less					\$ 17,518	\$ 36,862
BST			\$ 16,372	\$ 19,516		
Paved	All		\$ 22,554	\$ 28,659	\$ 26,150	
	< 5,000					\$ 54,133
	5,000 +					\$ 95,680

Cost factors adjusted for extraordinary increases in oil prices

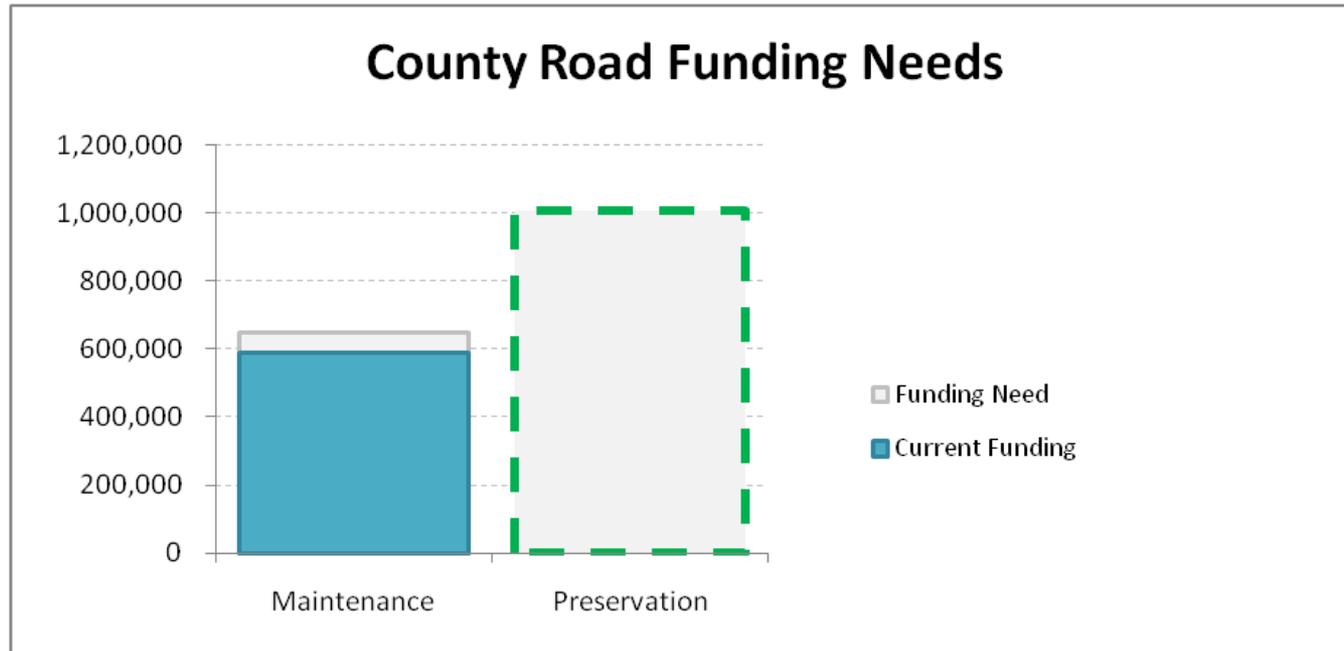
- By adding \$2,000 per mile for BST and \$3,500 per mile for paving, the overall maintenance need increases by \$75,000,000.

COUNTY ROAD REVENUES AND EXPENSES



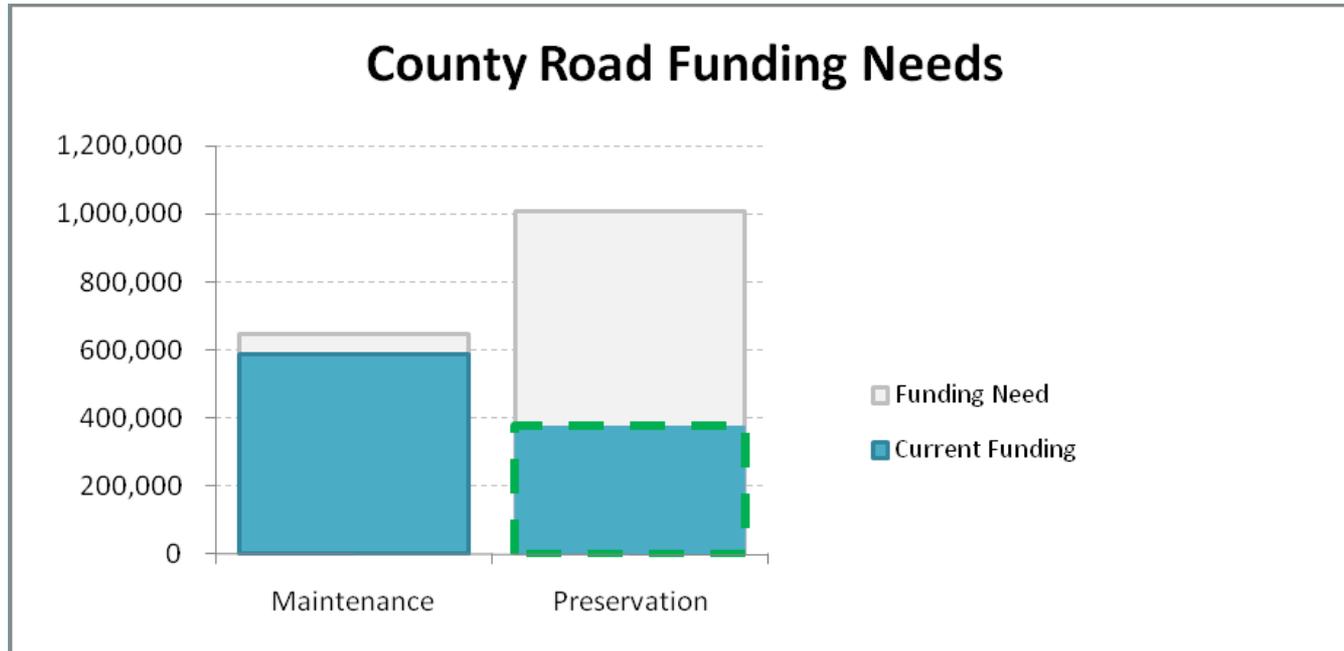
- Higher costs for surfacing increases the maintenance gap to about \$135 million annually.
- This shows that work is needed to review and update maintenance costs.

COUNTY ROAD REVENUES AND EXPENSES



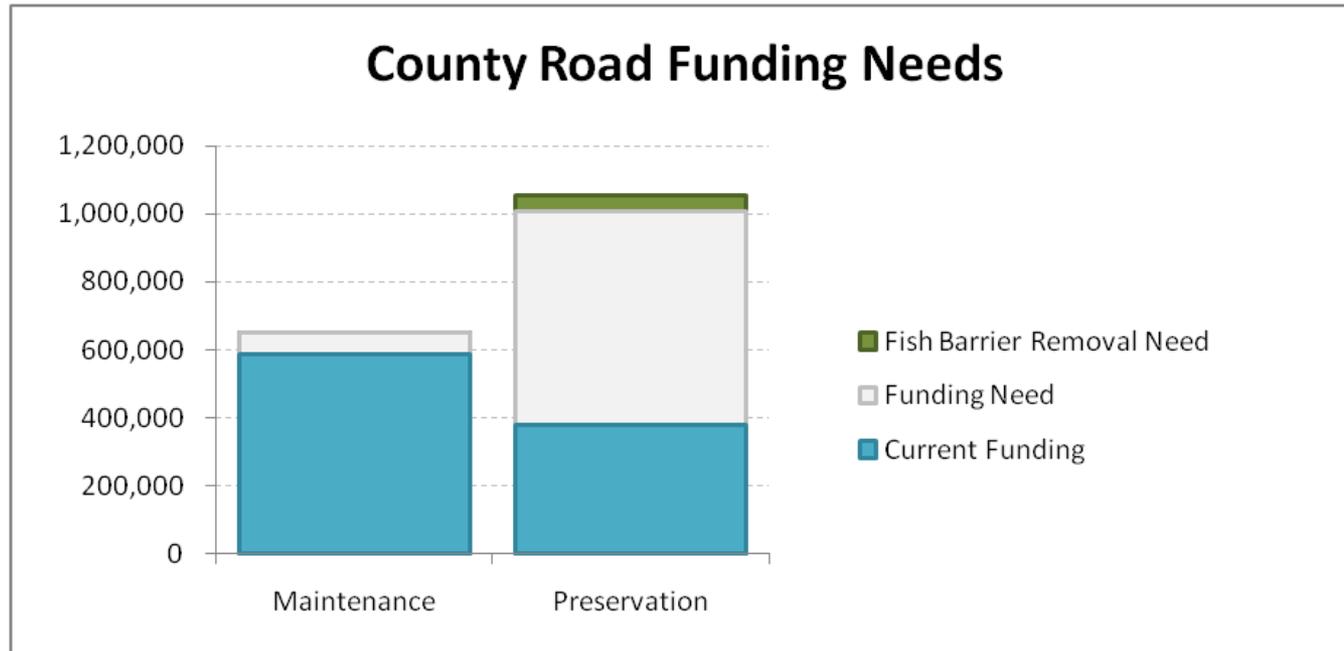
- The calculated need for road preservation is about \$1 billion annually.

COUNTY ROAD REVENUES AND EXPENSES



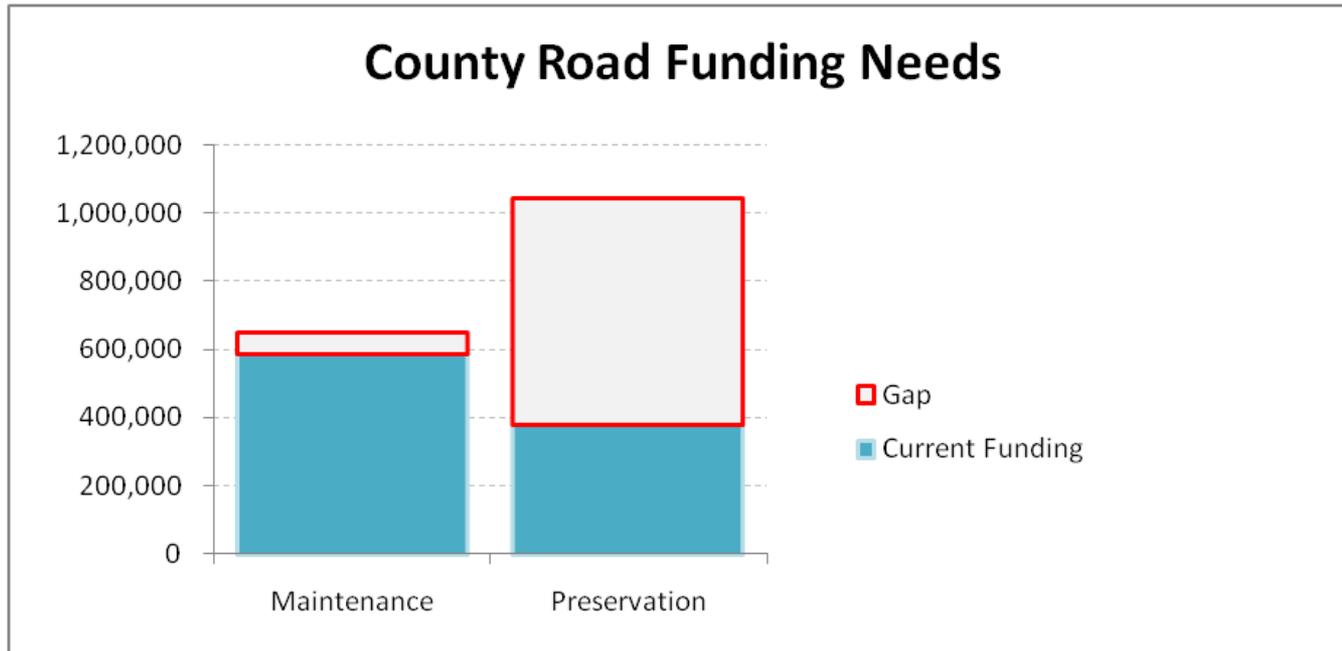
- Counties spent \$377 million in 2008 for road construction (about 38% of the need).

COUNTY ROAD REVENUES AND EXPENSES



- To address fish passage barriers could add between \$9 million and \$64 million to the annual need.

COUNTY ROAD REVENUES AND EXPENSES



- The total gap for maintenance and preservation funding is \$728 million annually and would likely increase as cost factors are reviewed and updated.

COUNTY ROAD REVENUES AND EXPENSES

- ▶ Options for funding a portion of the gap:
 - ▶ Focus on arterials – 14,485 miles (36% of system)
 - ▶ Focus on all-weather roads – 11,444 miles (29%) are truck routes
 - ▶ Focus on higher volume roads – 10,717 miles (27%) have volumes >400 ADT
 - ▶ Focus on safety or environmental needs
- ▶ Above options have not been estimated for cost or funding gap

COUNTY ROAD NEEDS ANALYSIS

Conclusions:

- ▶ The majority of county road replacement costs are comparable to preservation costs of the state highway system
- ▶ Annual preservation cost estimates based on a 25 year program (4% per year) far exceed current funding levels
- ▶ Current funding levels (state, federal and local) allow for 1.5% replacement schedule (67 years)
- ▶ Options for focusing on components of the county roadway system will help address the gap in funding

COUNTY ROAD NEEDS ANALYSIS

Thank you for the opportunity to make this presentation.



Washington State
Association of
County Engineers

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