



Washington State
County Road Administration Board

2019 Annual Report

Prepared for the
Legislative Transportation Committee and
the Washington State Transportation Commission



January 1, 2020

The Honorable Steve Hobbs
Washington State Senator
Chair, Senate Transportation Committee

The Honorable Jake Fey
Washington State Representative
Chair, House Transportation Committee

Dear Senator Hobbs and Representative Fey:

The County Road Administration Board remains steadfast in their commitment to achieving your legislative mandates to provide statutory oversight of the state's thirty-nine county road departments, and in so doing, to provide to you the assurance that these counties' operations remain accountable in their stewardship of public assets and public trust.

In accordance with the requirement of RCW 36.78.070, the Washington State County Road Administration Board presents to the legislature this report of the activities of the agency for the year 2019. CRAB staff continues to promote the integration of engineering, information technology, and grants administration among the counties of the state. We believe this report will accurately indicate to you, and to the people of the State of Washington, the effectiveness of that effort.

Respectfully submitted,

A handwritten signature in black ink that reads 'Brian D. Stacy'. The signature is written in a cursive style with a large, looped 'S' at the end.

BRIAN STACY, P.E., CHAIR

A handwritten signature in black ink that reads 'John M. Koster'. The signature is written in a cursive style with a large, looped 'K' at the end.

JOHN KOSTER, EXECUTIVE DIRECTOR

County Road Administration Board

<u>CRABoard Members</u>	<u>Term Expires</u>
Chair Brian Stacy, P.E., Pierce County Engineer	2021
Vice-Chair Rob Coffman, Lincoln County Commissioner	2022
Second Vice-Chair Lisa Janicki, Skagit County Commissioner	2021
Bob Koch, Franklin County Commissioner	2022
Mark Storey, P.E., Whitman County Engineer	2022
Kathy Lambert, King County Council Member	2021
Al French, Spokane County Commissioner	2020
Grant Morgan, P.E., Garfield County Engineer	2020
Randy Ross, Grays Harbor County Commissioner	2020

County Road Administration Board Staff

Executive Director	John Koster
Executive Assistant	Karen Pendleton
Administration	Toni Cox, Engineering Technician Rhonda Mayner, Secretary
Deputy Director	Walter Olsen, P.E. Derek Pohle, P.E., Eng. & Adm. Support Specialist Randy Hart, P.E., Grant Programs Manager Mike Clark, C.E.T., Road Systems Inventory Manager Drew Woods, P.E., Compliance & Data Analysis Mgr.
Design & UAS Systems	Brian Bailey, Design System & UAS Programs Manager
Information Services	Eric Hagenlock, Information Services Manager Jim Oyler, Web & Training Strategist Kathy O'Shea, Database Administrator Cameron Cole, GIS Administrator Scott Campbell, Systems Security Specialist

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From the Executive Director

I trust as you read this report it will become evident that the staff of the County Road Administration Board (CRAB) are dedicated people that work very hard to accomplish the mission of the Agency, specifically: "To preserve and enhance the transportation infrastructure of the 39 Washington State Counties by providing Standards of Good Practice, the fair administration of funding programs, visionary leadership, and integrated, professional, and technical services".

You will see that this Agency provides hundreds of hours of training, education and consultation to the 39 counties annually. We continue to provide technical services as well. CRAB staff has worked over the last two years to develop an award winning, one of a kind, technology to assist the counties in their road log and road maintenance programs. While we work to fulfill our regulatory role, administer funding programs, and provide technical services, we do so as efficiently as possible, keeping our overhead costs minimal (below 3%) to allow maximum funding for county road projects. I personally feel honored to work with such a diverse and talented group of people here at CRAB.

CRAB is in the process of developing WACs for the administration of the Emergency Loan Program, established and initially funded by the legislature in the 2019 session. This program, when fully funded, will allow CRAB to 'spend down' our fund balance in our RATA account, providing more money for county projects while still providing a mechanism to deal with emergencies.

As the legislature deals with the quandary of balancing declining transportation revenues and addressing both preservation and maintenance and capacity needs due to population growth, I would respectfully remind the members of the Legislature that the Counties are your partners in what is often referred to as an 'integrated statewide system'. That being said, I will reiterate, with the exception of the 'Connecting Washington funding package', the counties' portion of the MVFT has not changed for approximately 19 years. What was once a 50/50 partnership in addressing county infrastructure has become a 2/3 county funding, 1/3 state funding proposition. The 2/3 funding that the counties provide is, for the most part, funded through the Road Fund portion of the property tax. The legislature should also be cognizant that when the counties realize increased costs to meet yet another legislative mandate, the counties, often out of necessity, increase diversion of road funds to 'current expense' to fulfill those mandates.

Finally, I would like to express my appreciation for the hard work the legislature has before it, most particularly the challenge the legislature faces in the light of projected declining revenue from the MVFT and increasing demands to the transportation system as a whole. We stand ready to assist in any way possible.

Engineering Services

The primary responsibility of the Engineering Services Division is the maintenance and updating of summary reports, guidance materials, model documents, and the provision of training to County Engineers and their staffs. Through a combination of county visits and CRAB sponsored training held in Olympia and around the state, the Engineering Services Division, under the direction of Deputy Director Walt Olsen, P.E., has brought over 500 hours of informative training to the members of Washington State Association of Counties and Washington State Association of County Engineers.

The Engineering Services staff, most of whom hold Professional Engineer licenses, is comprised of Engineering and Administrative Support Specialist Derek Pohle, P.E., Compliance and Data Analysis Manager Drew Woods, P.E., Grant Programs Manager Randy Hart, P.E., and Road Systems Inventory Manager Mike Clark, C.E.T., are directly responsible for the following functions:

- Administration of the Rural Arterial Program, the County Arterial Preservation Program, the County Ferry Capital Improvement Program, and the Emergency Loan Program;
- Maintenance of the County Road Log and the computations and updates to the distribution of the counties' share of the motor vehicle fuel tax;
- Management of the reports and other information necessary for recommendations related to the Annual Certificate of Good Practice for each county;
- Guidance and research on statutory and regulatory issues affecting county road and public works departments;
- Comprehensive and in depth training for County Commissioners, Council Members, County Engineers, and their staffs;
- Assistance in representation of county engineer interests on a variety of state-level committees and task forces;
- Design and traffic engineering assistance to counties, as requested, including consultant selection assistance;
- Liaison services on behalf of county engineers with various state agencies, especially the State Auditor's Office and Local Programs Division of WSDOT.

For many years, CRAB has provided County Engineers and other county Public Works staff a variety of information resources. One of these is the County Engineers' and Public Works Directors' Desk Reference, which contains guidance on a variety of technical and administrative issues affecting county engineering functions. In addition to providing this Manual as a hardcopy reference document, a major re-design of the Manual was released November 2016, which takes advantage of current internet technology through inclusion of over 1,800 internet "hotlinks" embedded within the documents text. While the revised Manual may contain less written detail on most topics, and is only half the number of pages from the previous version, the total number of topics covered has actually expanded. When the document is open as an electronic file on a computer connected to the internet, the embedded "hotlinks" significantly expand the amount of

information immediately available to the user. In order to ensure current information is provided, several updates have been released, including the most recent in May 2019.

CRAB continued the County Engineer/Public Works Director training sessions this year and conducted two 3-day training sessions on May 14-16 and December 3-5, 2019, at the CRAB office, totaling over 400 training contact person-hours. This training is constantly being revised to reflect the ever-changing climate of engineering, social, political, and environmental concerns. These intense sessions review the duties and responsibilities of the counties and the County Engineer. Another aspect of this training has been developed to allow modules of this training package to be provided directly to a county or gathering of multiple counties at their site, and customized for their specific needs. One of these customized sessions was conducted during 2019 in Lewis County, totaling 24 training contact person-hours. CRAB has also delivered condensed three-hour trainings at WSAC County Leaders Conferences in the past that are well attended by county commissioners and councilmembers, county engineers, and senior staff. Comments were very positive and CRAB looks forward to future opportunities to continue this forum.

In no place is the diversity of the engineering field more evident than in the complexity and intricacy of the duties of the 39 County Engineers statewide. Each year, CRAB recognizes engineers and staff who have made significant contributions to the engineering community and their county.

In June, at the Washington State Association of County Engineers annual conference at Semiahmoo, John Koster, Executive Director of the County Road Administration Board, presented the County Engineer, Program, and Project Manager of the Year awards. The County Engineer of the Year award was presented to Rick Brater, P.E., King County Engineer. Rick Becker, Lincoln County, received the Project Manager of the Year Award and Jason Detamore, Chelan County, received the Program Manager of the Year Award. Congratulations to this year's winners for their outstanding service and excellent program delivery to their communities.

As the County Road Administration Board begins its 56th year as a state regulatory agency, the Engineering Services Division must continue to provide a diverse mix of specialists who provide quality training and assistance across an even wider spectrum of subject matter.

CRAB acts as a clearinghouse for information requests, questions, and the exchange of ideas. With an emphasis on good communication, Engineering Services staff has worked with state transportation officials, resource agencies' personnel, and public works departments as they strive to meet the transportation needs of their counties.

Design Systems

This program has consistently provided designers, engineers and surveyors of the 39 counties of Washington State with training and support in state-of-the-art engineering design system software. CRAB prides itself on offering our counties training courses suited for both engineering and surveying professionals, geared toward road and stormwater design in the county environment.



After 20 years of faithfully managing the Design Systems Program and a total of 33 years of public service, Jim Ayres, P.E., retired at the end of July. During his tenure, Jim instructed the counties on the efficient use of Eagle Point and in 2012 was instrumental in the transition and training of Autodesk Civil 3D. Jim provided additional training and county interaction through the annual Road Design Conference. In 2015, Jim began an investigation into the use of drones. His initiative to consider developing technology resulted in the inception of CRAB's UAS Program. Jim's passion for this technology and his desire to share it epitomized the mission of the CRAB Design Systems Program.

CRAB and the counties of Washington State are forever indebted to him for his service.

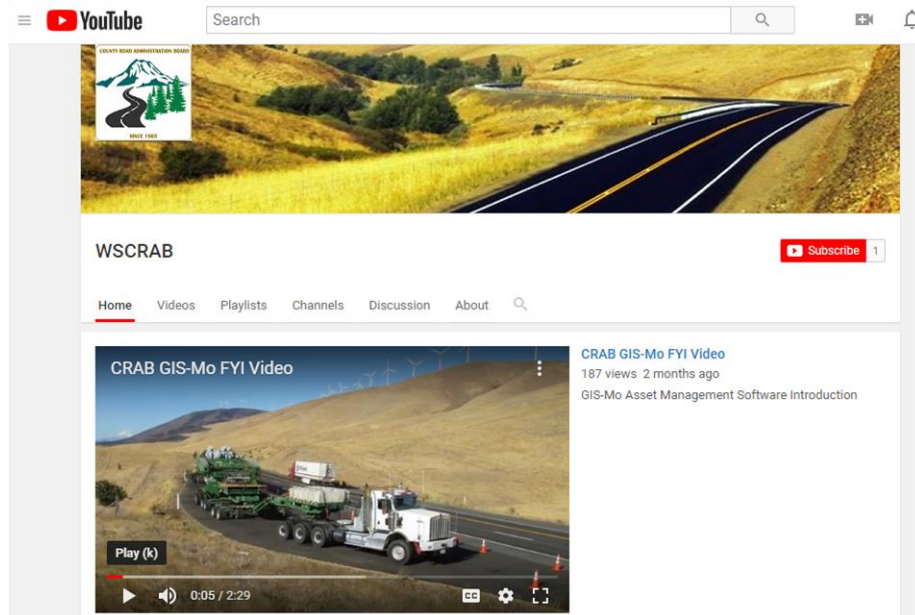
In September of 2019, CRAB recruited and hired Brian Bailey as the new Design System & UAS Programs Manager. Brian has 30 years of experience in Civil Engineering, working and instructing on many design systems throughout those years, both in the private and public sectors. Additionally, Brian has worked for the last nine years with Kitsap County as a Design Engineer developing capital improvement projects from inception to construction. Brian's experience as a power user of design systems and his extensive background in civil engineering and transportation design, along with his valuable insight into the needs of county design staff, will help CRAB maintain its commitment of technical support to our county partners.



“Change leadership is the ability to influence and enthuse others through personal advocacy, vision and drive, and to access resources to build a solid platform for change” (Higgs and Rowland, 2000).

The change of leadership in the Design Systems Program brings opportunity. With Brian's appointment, CRAB has an opportunity to deliver new resources and new methods to the 39 counties. We are assessing our current training material and methods. Autodesk's® Civil 3D® product has been available since 2004. Many of the current county design staff and future hires have the basic skills to operate the software at beginner to intermediate levels. We are researching opportunities in learning

management systems to deliver more advanced workflow training in the areas that many users require. With this system, CRAB can also provide instruction for other products provided to the counties such as GIS-Mo, RAP Online and C.A.R.S. The Design Systems Program will continue to provide basic and intermediate training to the counties at our offices or at their site as we develop this new content.



In 2019, CRAB jumped into video sharing and began publishing video content to YouTube. Using the screen recorder software Camtasia, staff can prepare a variety of videos for training and demonstration. We can then post these videos to our “CRABTube” channel. Users can find the link to the channel from our home page <http://www.crab.wa.gov/>.

For 29 years, the Design Systems Program has organized and conducted the annual Road Design Conference. The conferences have proved invaluable to the counties as an opportunity for training and for personal interaction of county staff. These interactions provided the counties a face-to-face opportunity to meet their peers, share ideas and experience. CRAB did not host the conference in 2019, which was the first year it had not occurred annually. Traditionally, it had been held in the fall, usually October or November. Unfortunately, that time frame conflicted with one of our major sponsors, Autodesk. A decision was made following our 2018 conference to move the conference to the springtime. In 2020, the Road Design Conference will commence March 24 at Campbell's



Resort in Chelan, Washington. This will mark the 30th time that the conference has been held and will be the first Annual Spring Conference.

UAS Program

In 2015, CRAB began investigations into the use of drones by the road design staff in Washington counties. This investigation developed into CRAB's full-fledged Unmanned Aircraft Systems Program. At that time, it was necessary to carry this new technology to the counties and show them the value of adding a UAS Program to their agency. CRAB acquired the equipment and software and took it on the road to demonstrate how the system worked and how it could benefit the counties which resulted in many of the counties developing their own UAS Programs. As the technology has developed, the uses for drones have become increasingly broad and the rules of operation more defined. With the change of leadership in the UAS Program and the changing landscape of drone use, CRAB is determined to deliver the most effective use and training of this technology to the counties. We will be working with the counties in 2020 to assess our current program and adjust our mission to best provide for the county's needs.

In July of 2019, CRAB acquired its newest unmanned aircraft, the CRAB-copter. The purpose of this acquisition is to demonstrate to the counties the advantage of a multi-rotor aircraft in small area surveys and the potential use of unmanned aircraft in various inspection duties. This aircraft also shows great potential in the event of a natural disaster or emergency conditions. The new aircraft is capable of carrying a high-resolution camera in the upward and downward position, and is capable of carrying up to three payloads at one time. We will work to incorporate this new equipment into our UAS Program in 2020.



Information Services

The Information Services (IS) Division at CRAB is a team of Information Technology (IT) professionals dedicated to programs and initiatives, both at CRAB and in our counties, which protect and improve the public's investment in our transportation infrastructure.

The GIS-Mo project team, led by Eric Hagenlock, has worked diligently for more than a year and a half to deliver a state of the art county road asset management system. This system combines software suites from ESRI and DTS, LLC to create a cohesive geospatial asset management system with mobile device capability. Breaking new ground, Washington State will be the first ESRI Roads and Highways implementation to onboard an entire state's county road network. The project team has been commended at every step along the way for their dedication, responsiveness, expertise, and collaborative nature. Although the project team was nominated, GIS-Mo is a collaboration between CRAB, WSDOT, WTSC, WSACE, all 39 Counties, DTS LLC, ESRI, Team Soapbox, and more.

CRAB's IT Team received the Best of Washington Award. The award was presented by Governor Jay Inslee and Washington State Chief Information Officer Jim Weaver at the Washington Digital Government Summit on November 7 in Olympia at the Hotel Red Lion.



Governor Jay Inslee, Eric Hagenlock, Kathy O'Shea, Jim Oyler,
Scott Campbell, Cameron Cole, and Walt Olsen

Information Services Strategic Goal

The goal of CRAB's strategic plan for Information Services is to assist counties in developing uniform and efficient transportation-related IT resources by providing, developing and supporting a full range of information tools and services for all aspects of transportation-related public works operations. This strategic goal has four objectives.

Objective One: *Ensure effective use of IT tools through development or procurement of, and support and training for, appropriate applications and software.*

CRAB continues the effort to replace its flagship product, Mobility©, with a commercial-off-the-shelf (COTS) enterprise asset management system. The major objectives of this project are to add geospatial data to the linear referencing system (LRS) used in Mobility©, add mobile data collection capabilities, and integrate efficiently with information systems outside of CRAB. Visualizing spatial data will become another tool for investigating budgets, funding and where state and federal dollars are being utilized. It also will allow all counties to have access to web mapping, mobile mapping applications and spatial editing for updating and maintaining the County Road Networks and road assets.

*"The application of GIS is limited only by the imagination of those who use it".
~ Jack Dangermond, Esri.*

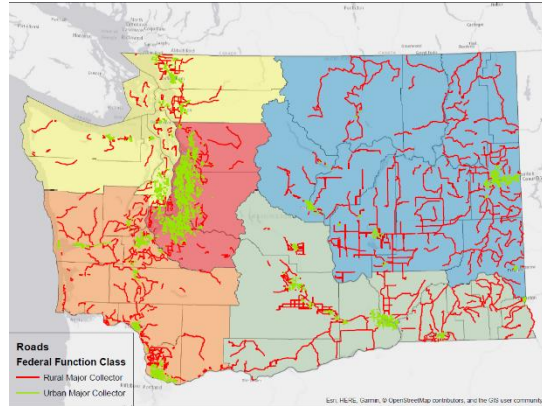
CRAB is envisioning a future where all counties are able to utilize asset and maintenance management through GIS to make data driven decisions and better serve Washington State. The decision to use COTS instead of the long practiced in-house development was born from the desire to continue to offer state-of-the-art software applications with minimal increase to the IT budget, to keep pace with the rapidly advancing need of county staff, and to have systems capable of managing the approximately \$900 million spent on nearly 40,000 miles of county roads annually.

CRAB is targeting the transition from Mobility© to occur in 2021. Over the past three years, CRAB developed a sustainable budget, worked with vendors to configure the COTS system to meet county needs, developed the migration routine from Mobility© to the new system and accomplished the necessary train-the-trainer between the vendor and CRAB staff. Over the next year, CRAB will bring this training to the 39 Washington State counties.



CRAB IT also delivers the Agency website. The updated website brings a mobile first responsive design, improved search capability, accessibility, and many more modern

features. The new website effectively responds to informing and providing users content pertaining to CRAB and Washington State County initiatives.



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Revenues

Motor Vehicle Fuel Tax

In the State of Washington, the state motor vehicle fuel tax (MVFT), currently 48¢ cents/gallon, is shared among the cities, counties and the state Department of Transportation. This includes a deduction of a portion of the MVFT to grant programs managed by the County Road Administration Board (CRAB) and the Transportation Improvement Board (TIB). The most recent MVFT increase was primarily dedicated to the Transportation Partnership Account (TPA) utilized for legislatively selected transportation projects.

CRAB LINKS
[About Us](#)
[Standards of Good Practice](#)
[Budget](#)
[Annual Report](#)

Motor Vehicle Fuel Stuff

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut...

MVFT LINKS
[MVFT Allocation Factors](#)
[Motor Fuel Tax Estimated Revenue](#)
[Motor Vehicle Fuel Tax Distribution](#)

What you want here Mike?

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 Olympia, WA 98512-3803
[Directions to CRAB](#)

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Welcome to the Washington State County Road Administration Board

Our purpose...

The Washington State County Road Administration Board (CRAB) provides accountability through standards of good practice, fair administration of funding programs, and engineering and technology assistance to the 39 Washington State County Road Departments in accordance with [RCW 35.16\(3\)](#).

CRAB LINKS
[About Us](#)
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[Budget](#)
[Annual Report](#)
[Training](#)

The transportation systems owned, operated, and maintained by the state's 39 counties include almost 40,000 miles of roads, 3,300 bridges, and four ferry systems. The annual county road department budget exceeds \$1.2 billion per year, funded by local property taxes, a share of the state motor vehicle fuel tax, federal and state grants, and other sources.

MVFT LINKS
[39th Mile](#)
[Public Records Request](#)
[Privacy](#)
[Accessibility](#)
[Feedback](#)

Standards of Good Practice

[RCW 35.12](#) requires CRAB to establish, by rule, Standards of Good Practice for the "administration of county roads and the efficient movement of people and goods over county roads". The current CRAB Standards are contained in [RCW 35.130](#). See the listing of [CRAB Standards](#) for summary information and links to the Code Review.

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Objective Two: *Maintain a high level of professionalism in the use of IT in county road departments through training and support.*

CRAB has several resources for training and support available to Agency IT stakeholders. Formal training is typically offered several times a year at the CRAB Offices and at remote facilities. In 2019, CRAB delivered approximately 500 person hours of GIS-Mo training.

CRAB also performs support through email and phone, which is facilitated by the Agency helpdesk system, CRAB-NET. CRAB-NET reports 351 tickets were submitted to helpdesk, and 293 tickets were resolved in 2019.

Objective Three: *Enhance the effectiveness of county personnel in their projects and initiatives through IT consultation.*

CRAB staff is constantly providing consultation to counties, either by participating in workgroups, committees, councils, etc., or through personalized one-on-one consultation. In 2019 more than 100 person hours of consultation services were received by counties in MVFT, Mobility©, pavement rating, pavement management, systemic safety project selection, etc.

Objective Four: *Promote cooperative communication, information exchange, and IT uniformity through conferences, workshops, and website activities.*

CRAB Information Services organized, led, and completed one workgroup in 2019 to facilitate the development of GIS-Mo. The Integration and Interoperability Workgroup, focused on the integration/interoperability of GIS-Mo with various State and County information systems.

Grant Programs

County Arterial Preservation Program (CAPP) and Rural Arterial Program (RAP)

In 2018, the County Road Administration Board managed a total of \$39.5 million in road and bridge funding given to Washington State counties to assist their efforts to maintain, rebuild and enhance their transportation systems statewide. The funds were delivered to the counties via the RAP program (\$20.4 Million), which is a competitive process that encourages counties to address the greatest overall deficiencies on the highest priority arterial roads, and the CAPP program, which funds needed arterial pavement preservation and helps counties to keep long term surface rehabilitation costs at a minimum.

County Arterial Preservation Program - CAPP

The Washington State counties used three statewide funding sources within the CAPP to address their pavement preservation needs in 2018: The monthly deposit of fuel tax receipts into the County Arterial Preservation Account (**CAPA**), direct transfer from the Transportation Partnership Account (**TPA**) into the CAPA every July, and direct transfer from the Motor Vehicle Account (**MVA**) into the CAPA each quarter. The total expended in 2018 by counties from these three funding sources was \$19.1 million (see table H). Adding county funds, the total expended on pavement preservation was \$72.3 million. These funds all work together to reduce the need for higher cost pavement reconstruction in the future - statewide. The chart below shows the 2018 CAPA funds used on the County Freight and Goods system.

Freight and Goods Routes Tonnage Designations:

T-2: 4 million to 10 million tons per year

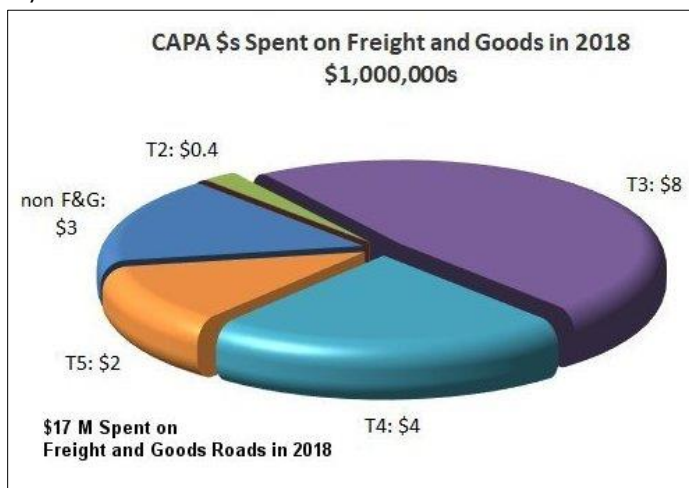
T-3: 300,000 to 4 million tons per year

T-4: 100,000 to 300,000 tons per year

T-5: at least 20,000 tons in 60 days and less than 100,000 tons per year

Rural Arterial Program - RAP

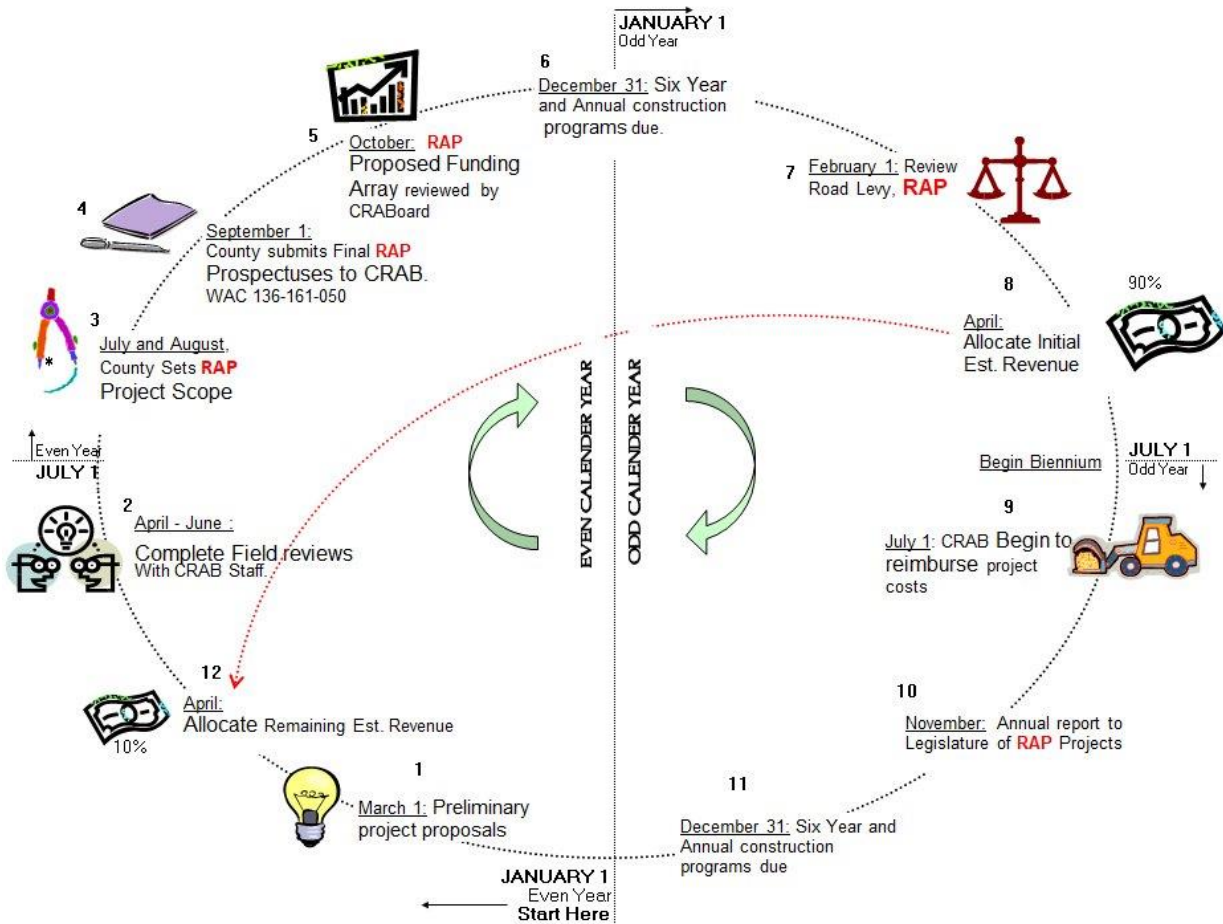
The 12,400 miles of county rural arterial roads in Washington State serve as vital links for commodities making their way to markets, communities, and ports, and as commuter routes to and from work. They also are often the final point of access to recreation areas. These impacts of growth and freight haul expose specific roads that may be too weak, narrow, steep or crooked to be safe. Fortunately, the RAP addresses these same width, alignment, safety and structural deficiencies. The counties used \$20.4 million of these funds in 2018 (see table C) to fix these conditions, improving haul and traffic capacity and safety.



**RURAL ARTERIAL PROGRAM EXPENDITURES BY COUNTY
AND LEGISLATIVE DISTRICT IN 2018**

<u>COUNTY</u>	<u>LEG DIST</u>	<u>RATA \$'S</u> <u>RECEIVED</u>	<u>COUNTY</u>	<u>LEG DIST</u>	<u>RATA \$'S</u> <u>RECEIVED</u>
Adams	9	938,860	Lincoln	7	1,428,724
Asotin	9	47,040	Lincoln	13	275,284
Benton	8	3,350	Mason	35	235,306
Clallam	24	2,223	Okanogan	7	35,395
Clark	18	36,978	Okanogan	12	2,192
Clark	20	1,000	Pacific	19	541,425
Columbia	16	2,950,179	Pend Oreille	7	1,929,604
Cowlitz	19	44,401	Pierce	2	474,337
Cowlitz	20	2,170	Pierce	26	(58,648)
Douglas	12	1,909,815	San Juan	40	309,974
Ferry	7	109,965	Skagit	39	38,636
Franklin	9	5,343	Skagit	40	50,650
Franklin	16	19,952	Skamania	14	389,958
Garfield	9	75,706	Snohomish	39	326,716
Grant	13	897,510	Spokane	4	4,006,166
Grays Harbor	19	50,607	Stevens	7	1,292
Island	10	1,343,873	Thurston	2	1,745
Jefferson	24	417,206	Wahkiakum	19	65,088
King	45	52,252	Walla Walla	16	55,490
Kitsap	35	11,715	Whatcom	42	7,058
Kittitas	13	525,802	Whitman	9	57,366
Klickitat	14	950	Yakima	14	428,488
Lewis	20	111,465	Yakima	15	270,317
					20,430,923

RURAL ARTERIAL PROGRAM BIENNIUM CYCLE



History of RATA Funds per County:

<u>REGION</u>	<u>COUNTY</u>	<u>TOTAL RATA</u> <u>APPROVED</u>	<u>TOTAL RATA</u> <u>SPENT</u>	<u>%</u> <u>SPENT</u>	<u>MILES</u> <u>BUILT</u>
	NE Adams	24,327,284	19,757,701	81%	104
	NE Chelan	30,087,900	22,745,653	76%	57
	NE Douglas	28,142,035	25,321,886	90%	59
	NE Ferry	26,508,330	16,503,905	62%	65
	NE Grant	33,492,068	29,134,948	87%	178
	NE Lincoln	30,346,620	26,008,548	86%	117
	NE Okanogan	26,037,082	17,140,244	66%	56
	NE Pend Oreille	16,777,378	15,150,282	90%	80
	NE Spokane	37,666,191	29,398,673	78%	51
	NE Stevens	30,658,885	26,618,968	87%	118
	NE Whitman	32,170,512	22,088,720	69%	104
NE REGION TOTALS		\$ 316,214,285	\$ 249,869,527		989
	NW Clallam	11,390,976	9,855,681	87%	16
	NW Island	15,351,700	12,851,484	84%	20
	NW Jefferson	7,883,740	6,364,599	81%	15
	NW Kitsap	14,226,520	10,768,996	76%	30
	NW San Juan	9,720,008	8,464,923	87%	19
	NW Skagit	11,432,654	6,200,822	54%	21
	NW Whatcom	14,132,182	11,879,926	84%	38
NW REGION TOTALS		\$ 84,137,780	\$ 66,386,432		159
	PS King	17,034,725	14,085,810	83%	27
	PS Pierce	17,594,666	14,496,288	82%	29
	PS Snohomish	15,783,791	12,905,020	82%	20
PS REGION TOTALS		\$ 50,413,182	\$ 41,487,118		77
	SE Asotin	15,858,751	10,688,790	67%	27
	SE Benton	21,076,053	18,563,736	88%	56
	SE Columbia	17,012,671	11,812,476	69%	42
	SE Franklin	14,761,986	12,638,343	86%	43
	SE Garfield	16,097,743	13,395,613	83%	47
	SE Kittitas	17,049,155	15,613,582	92%	33
	SE Klickitat	23,616,853	18,170,683	77%	84
	SE Walla Walla	20,869,590	15,958,914	76%	37
	SE Yakima	27,387,791	21,545,112	79%	50
SE REGION TOTALS		\$ 173,730,593	\$ 138,387,248		419
	SW Clark	14,345,918	10,428,081	73%	16
	SW Cowlitz	15,378,450	12,196,391	79%	28
	SW Grays Harbor	16,674,835	13,557,467	81%	20
	SW Lewis	12,240,905	10,895,687	89%	26
	SW Mason	13,980,425	11,469,521	82%	38
	SW Pacific	12,462,865	10,368,175	83%	55
	SW Skamania	3,179,868	2,970,885	93%	16
	SW Thurston	16,742,825	13,958,004	83%	32
	SW Wahkiakum	8,566,126	4,895,907	57%	38
SW REGION TOTALS		\$ 113,572,217	\$ 90,740,118		268
STATEWIDE TOTAL		\$ 738,068,057	\$ 586,870,443	80%	1,913

2018-2019 Grant Program Projects

Columbia Whiskey Creek Bridge Replacement

The Whiskey Creek RAP project replaced the old Neace Bridge with a new precast concrete "D" arch structure. The old Neace Bridge was a steel bridge on timber abutments. The new bridge is entirely precast concrete including the footings, wing walls and arch barrel sections.

The structure is now positioned directly on bedrock, significantly reducing the danger of scour. County forces were used to remove the old bridge, all site work, assembly of the new structure and final site work. A number of contractors were used for the crane work, paving and guardrail work. The project was completed ahead of schedule and under budget. The county has received only positive community feedback.



Total Cost: \$555,043
County: \$74,643
RAP: \$480,400

Contractors:
Guardrail - Frank Gurney Inc.
Paving - Central Washington Asphalt
Bridge Materials - Structure Site, LLC
Bridge Construction - Rhodes Crane & Rigging
Site Prep and completion -
County Forces

Adams County rehabilitates another important section of Cunningham Road



Cunningham Road Parallels State Route 26 and can be used as an alternate. As a minor collector, the road links southeast and southwest Adams County together. The road is a major haul route for farmers' agricultural products to market or storage. The existing pavement was distressed and the roadway narrow, making it difficult for trucks to negotiate among themselves and other traffic.

Total Cost: \$1,383,906
County: \$461,406
RAP: \$922,500

Contractor: Wheeler Excavation, LLC

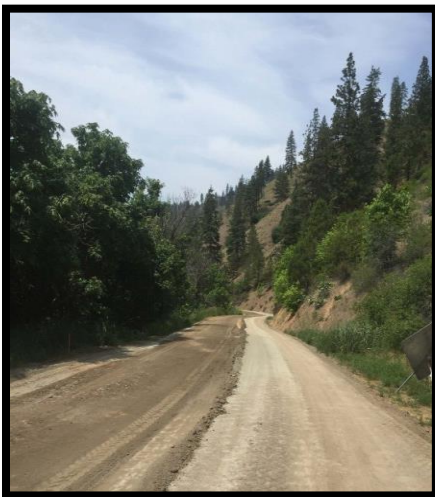
In applying for RATA funding the county needed to consider: 1) 44% of the traffic was heavy trucks. 2) The lane width was 9 to 10 feet with a varying 1 to 3 foot gravel and native material



shoulder that had eroded in places. The project improvements included widening the roadbed to 28 feet, mitigating roadside hazards, widening shoulders, adding guardrail where required, and surfacing the entire roadway with a BST wearing course. There has been great positive feedback from the public on the upgrade to this section of Cunningham Road.

Chelan County uses RAP and Federal Lands Access Funds to widen and resurface Eagle Creek Road

This project was the second phase of improvements to Eagle Creek Road, which is classified as a Rural Minor Collector (FFC 07). It serves residential and school bus traffic, orchardists, outdoor enthusiasts, and logging traffic. The beginning of this project connects to the previous section at MP 3.30 and concludes at the end of the county road at MP 5.81. The existing roadway structural condition fell below the level of minimal standards (ranging from 0 to 61 out of 100, evaluated in 2012).



Chelan County used the Full Depth Reclamation (FDR) with a cement treated base method with an HMA overlay to prevent further deterioration of the existing roadway and to maintain it at the least possible life cycle cost.

In addition to the pavement rehabilitation, the project assessed mitigation measures for roadside hazards within the clear zone. FDR is not only an economically viable option, it is also a “green” option, since FDR recycles materials from the existing roadway and requires less hauling of materials.

Total Cost: \$1,105,311
County: \$17,503
Federal: \$337,808
RAP: \$750,000

Contractor: Granite Construction Company



Douglas County resurfaces its high agricultural impact Douglas North Road

Douglas North Road is an important north-south, farm-to-market route, northeast of Waterville, Washington.

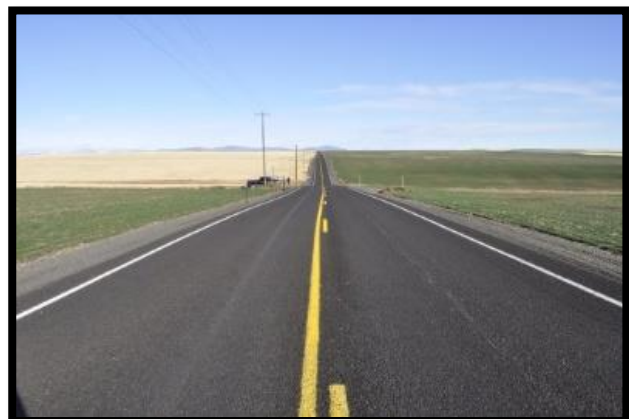
Repetitive seasonal heavy loading from wheat-hauling trucks had deformed and degraded the pavement to the point of failure. Repair and maintenance costs had escalated because the road was not built to support this loading. Deficient drainage conditions made conditions worse.



The improvement section finally competed well enough to gain an award of RAP funding from the CRABoard. These funds enabled county crews to install a structural fill and thereby raise the road's profile out of the moist soils. The raised profile also allowed for larger drainage structures. The county is confident this now is one of their best-constructed sections of rural arterial road, and looks forward to a long and low cost service life on Douglas North Road.

Total Cost:	\$1,333,004
County:	\$252,004
RAP:	\$1,081,000

Work performed by County Forces



Clallam County gives Lower Elwha Road timely improvements in widening, safety and structure

Lower Elwha Road serves the Lower Elwha Klallam Reservation and local homes. A new access to the reservation was recently completed (Kacee Way) making the rebuilt portion under this project match the width and safety features of the new route. Alignment of Lower Elwha is relatively straight, but prior to improvement the road was a very narrow 22 feet with steep ditches and clear zone hazards.



The project rebuilt the road to 34 feet total width with 6:1 slopes. The structure improvements included construction a 9-inch gravel base, adding 3 inches of crushed rock and finally the application of 3 inches of hot mix asphalt. All utilities were placed underground.

Total Cost: \$2,084,834
County: \$914,834
RAP: \$1,170,000

Contractor:
Bruch and Bruch Construction Co.



Jefferson County employs County crews to repair and contractor services to rebuild Dosewallips Road



Dosewallips Road has provided long time access to residents living in the Dosewallips River Valley, as well as providing recreation access to Olympic National Park and Forest, and wood products resources from state and private timberlands.

The eastbound lane of Dosewallips Road washed out in a landslide at milepost 1.67 in February 2014. Jefferson County quickly performed emergency repairs to restore the roadway. Permanent work was completed in 2018 to improve drainage, repave the road, and install guardrail.



The County rebuilt the road embankment during the emergency repairs, followed by the permanent repairs. Dosewallips Road, at this location, is now in much better shape to facilitate traffic and resist future sliding.



Total Cost: \$294,581

RAP: \$257,400

County: \$37,181

Contractors: Hanson Excavation LLC, Shelton, WA and Seton Construction, Port Townsend, WA

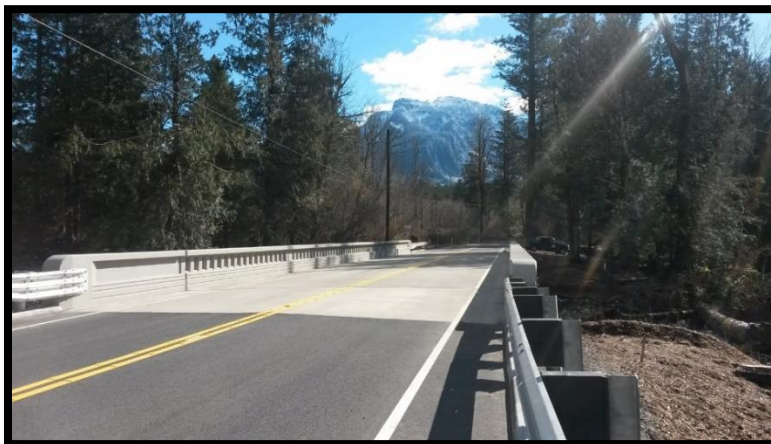
Snohomish County replaces undersized and compromised May Creek Bridge



May Creek Bridge was constructed in 1975. Over time, meandering of the creek has increased and extensive scouring and stream bank erosion was compromising the stability of the structure.

The approaches were being threatened by the new flow patterns and continued deterioration. The sub-structure was Scour-Critical due to shallow pile tip elevations in erosive granular soil.

The structure was replaced with a longer, higher, single span structure supported by piles to alleviate the erosive effects of the meandering river. The bridge was also widened to meet current standards for emergency vehicles. Stream banks were restored to a more natural state in consultation with resource agencies, thereby improving habitat.



Total Cost:	\$3,428,690
RAP:	\$550,000
County:	\$485,110
Federal:	\$2,393,580

Contractor: Strider
Construction, Bellingham, WA

Columbia County serves agriculture, recreation and fish and wildlife needs with improvements to Tucannon Road

Tucannon Road is a thoroughfare for agriculture as well as lands owned and managed by Washington Department of Fish and Wildlife. It serves managed campgrounds and a fish hatchery as well as Wooten Environmental Learning Center. The last 15 miles of the road are within the Tucannon-Wenaha Wilderness Area. The entire area is very popular for year round camping, hunting and fishing.



Deficiencies were reported in road width and horizontal curves as well as bridge guardrails and bridge paving, in addition to deficient culverts.

Reconstruction of this 2.5 mile stretch of road consisted of the realignment of two deficient curves, widening the narrow 1946 road, cement recycled asphalt base, hot mix asphalt, replacement of an undersized culvert with a new NBIS bridge. Three bridges received deck repair and bridge rail retrofit with approach guardrails.

Additional improvements included culvert construction, underground irrigation crossings, signs, striping, erosion control, and right of way fencing. The public has been very pleased with how this project turned out.

Total Cost:	\$2,793,160
RAP:	\$1,327,500
County:	\$24,336
Federal:	\$1,441,324

Contractor: Barker Inc., Dayton, WA

Yakima County replaces traffic choke point and structurally deficient North Meyers Bridge

North Meyers Road is the primary access route connecting the cities of Zillah and Toppenish, and provides access to Interstate 82. Although the existing bridge railing and approach guardrails were adequate for the existing bridge design, the bridge was narrow and needed to be widened.



Bridge approaches showed signs of roadway surface failures. The superstructure and substructure conditions of Bridge #502 were both listed as “marginal”, indicating the need for major rehabilitation.

In addition, with a bridge sufficiency rating of only 13.99, superstructure girder cracking, shallow pile depths and channel scour, full replacement became the only option. The bank protection was also severely deteriorated and washing out, which compromised the abutments.

The bridge was replaced and both the bridge and roadway were reconstructed to a 40-foot width (12' lanes / 8' shoulders), thereby eliminating the unsafe traffic choke point.

With a new structure and improved width, the North Meyers Road Bridge will serve the needs of this growing area of Yakima County for many more years.

Total Cost:	\$2,422,328
RAP:	\$367,000
County:	\$345,328
Federal:	\$1,710,000

Contractor: Cascade Bridge, LLC,
Vancouver, WA



Skamania County resurfaces Wind River Road with the help of RAP funding

Wind River Road is the main access road for the WKO Mill and all residences north of Conrad Lundy Jr. Bridge that drive this system to and from work. It also serves truck traffic coming off the forest.



Wind River Road exhibited asphalt bleeding, wheel rutt deformations and patching, crack seal repair and other deficiencies, and the bridge within the project location had pot holes and patches and also needed a new surface.

The entire roadway was milled to two-10 foot lanes with additional areas milled down to take out delaminations to create a usable surface. The bridge had two solid joints and four asphalt plugs that needed to be ground up to and paved over to save them. The County did a 1:00am start time as to not affect most of the population the county was thanked by the public for the short time delays.



Total Cost:	\$433,287
RAP:	\$389,958
County:	\$43,327

Contractor:
Granite Construction Co., Yakima, WA

Jefferson County moves quickly to restore washed-out Upper Hoh Road

On the west side of the Olympic Mountains and near the Pacific Ocean, Upper Hoh Road provides the only access to the Olympic National Park Hoh Rain Forest, full and part-time residences, the county road maintenance shop, Olympic National Forest, and Nature Conservancy lands.

When the road was partially washed out and reduced to barely one lane during December 2017 storm events, it was critical to get the road open and functioning as quickly as possible. This required immediate response with the skills of a private contractor to strengthen and stabilize the embankment, which arises directly out of the Upper Hoh River.

The embankment was rebuilt with a riprap revetment. After the roadbed was prepared, the paving was accomplished by selecting from a small works roster of contractors.

The completed work is now much stronger and fit for the severe weather impacts that will come in the future.



Total Cost: \$388,674
RAP: \$336,500
County: \$52,174

Contractors:
Embankment - Seton Construction, Inc, Port Townsend, WA

Guardrail - Dirt & Aggregate Interchange, Inc., Fairview, OR

Paving - Lakeside Industries, Port Angeles

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Table A

COUNTY BRIDGE DATA - DECEMBER 2019

Washington State Bridge Inventory System

Structures Greater than 20.0 Feet in Length; or,
Culverts Greater than 20.0 Feet in Width

COUNTY	County Owned Bridges	Good Condition		Fair Condition		Poor Condition		Structurally Deficient Bridges
		#	Deck Area (sf)	#	Deck Area (sf)	#	Deck Area (sf)	
ADAMS	111	35	71,628	73	102,383	3	3,985	3
ASOTIN	17	11	37,557	5	7,634	1	480	1
BENTON	50	37	91,990	13	14,707	0	0	0
CHELAN	53	32	73,649	19	107,142	2	24,546	3
CLALLAM	30	19	101,647	8	38,813	3	4,418	3
CLARK	56	28	126,829	28	63,578	0	0	0
COLUMBIA	62	26	49,863	33	48,931	3	7,086	4
COWLITZ	63	22	81,464	38	139,772	3	15,130	5
DOUGLAS	20	10	56,496	7	13,243	3	1,924	3
FERRY	23	10	9,101	11	26,855	2	2,314	2
FRANKLIN	85	64	108,365	16	21,361	5	6,793	11
GARFIELD	34	14	14,109	17	17,919	3	3,029	3
GRANT	195	144	298,547	50	95,126	1	5,304	1
GRAYS HARBOR	177	106	286,477	61	273,597	13	37,863	13
ISLAND	0	0	0	0	0	0	0	0
JEFFERSON	33	17	64,676	16	28,578	0	0	1
KING	131	48	280,478	74	349,955	11	29,471	19
KITSAP	39	32	82,328	8	22,567	0	0	0
KITTITAS	113	49	104,679	58	132,035	6	5,239	6
KLICKITAT	57	12	29,333	44	104,620	1	2,128	1
LEWIS	199	130	302,542	69	195,557	1	644	1
LINCOLN	123	81	137,041	36	43,615	8	6,537	9
MASON	53	30	76,810	22	49,860	1	39,582	1
OKANOGAN	50	28	60,531	21	76,705	1	1,352	1
PACIFIC	62	47	149,870	13	25,015	2	2,320	3
PEND OREILLE	29	20	35,818	6	101,804	3	1,490	3
PIERCE	102	64	278,784	33	101,625	5	59,738	6
SAN JUAN	4	3	4,153	1	504	0	0	0
SKAGIT	108	35	118,659	69	228,233	4	12,888	5
SKAMANIA	25	19	58,893	6	40,947	1	N/A - Culvert	0
SNOHOMISH	167	68	329,818	94	449,820	3	7,161	3
SPOKANE	106	60	269,797	39	107,748	7	33,405	7
STEVENS	48	17	62,613	21	31,073	10	15,402	10
THURSTON	101	62	214,137	38	129,657	1	653	1
WAHIAKUM	20	14	37,533	6	17,377	0	0	0
WALLA WALLA	107	76	220,212	25	44,089	5	10,481	12
WHATCOM	137	49	124,818	79	179,503	8	28,694	9
WHITMAN	251	130	238,847	118	176,139	2	2,284	2
YAKIMA	310	208	452,254	87	238,995	14	32,616	23
TOTAL	3,351	1,857	5,142,346	1,362	3,847,082	136	404,957	175

Bridge condition is determined by taking the lowest rating of four core elements of a bridge:

- Core Element #1 - Substructure
- Core Element #2 - Superstructure
- Core Element #3 - Deck
- Core Element #4 - Culvert

The four core elements are rated on a scale of 9 (Excellent) to 0 (Out of service - Beyond corrective action):

- Condition Rating 9 (Excellent) to 7 (Good) - "Good" Condition
- Condition Rating 6 (Satisfactory) to 5 (Fair) - "Fair" Condition
- Condition Rating 4 (Poor) to 0 (Failed) - "Poor" Condition

County Bridge Condition at a Glance

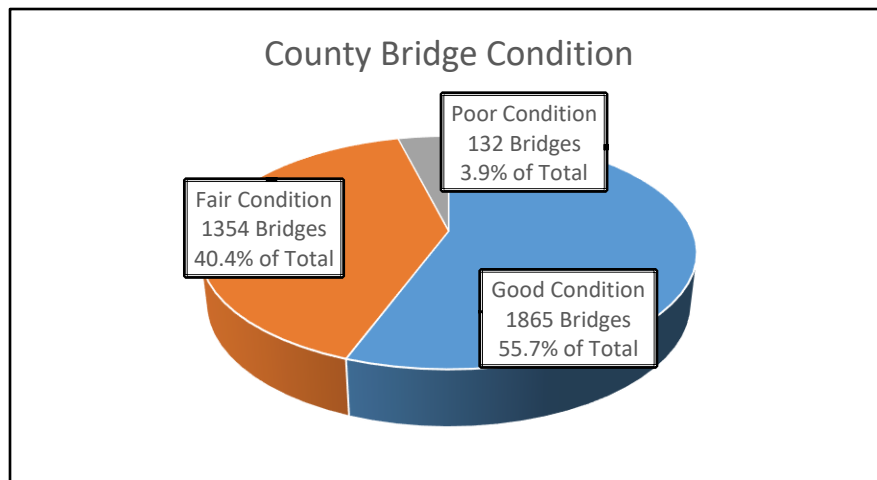
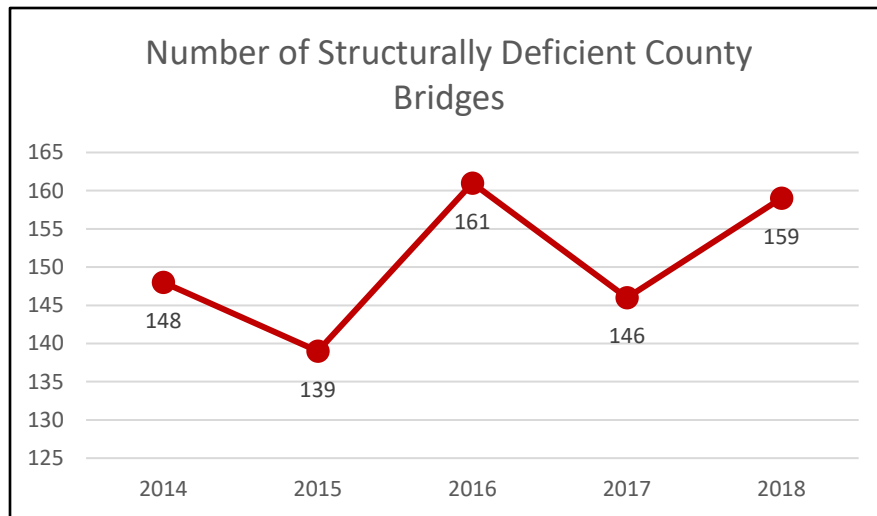
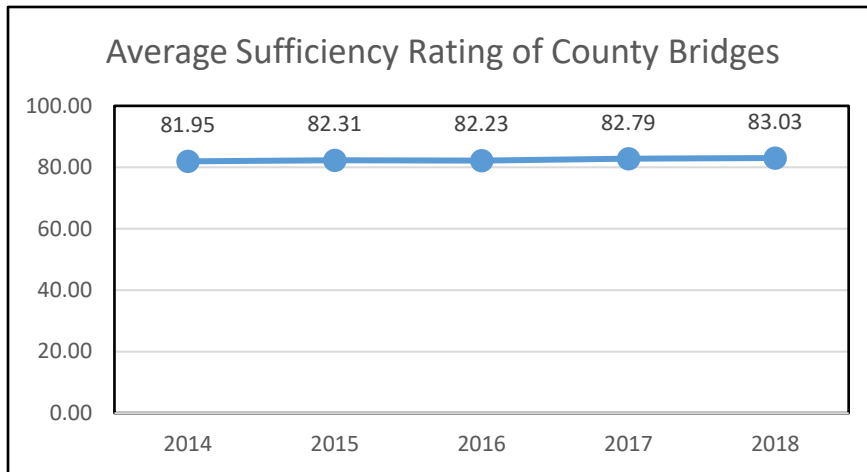


Table B
ACTUAL COUNTY ROAD RELATED REVENUES
2018
(thousands of dollars)

COUNTY	MOTOR VEHICLE FUEL TAX					TAXES				MISC			TOTAL
	COUNTY REGULAR	TIB	RAP	CAPP	MVFT TOTAL	PROP- ERTY	TIMBER EXCISE	OTHER TAXES	TOTAL TAXES	FED GRANTS	FED LANDS	OTHER	
ADAMS	4,468	0	939	815	6,222	2,891	0	0	2,891	523	1	249	9,886
ASOTIN	1,745	160	790	152	2,847	1,122	8	3	1,133	241	29	145	4,395
BENTON	3,468	0	1,119	443	5,031	5,912	0	64	5,976	1,953	0	3,587	16,547
CHELAN	2,384	5	110	353	2,852	7,722	1	28	7,751	653	570	2,095	13,921
CLALLAM	2,210	0	898	372	3,480	7,289	391	24	7,704	213	410	1,208	13,015
CLARK	7,105	2,524	1,704	678	12,011	35,392	252	18	35,662	6,787	5	16,071	70,536
COLUMBIA	1,641	0	38	211	1,890	1,496	7	3	1,506	1,182	69	27	4,674
COWLITZ	2,178	0	1,930	330	4,438	9,471	1,216	107	10,794	692	56	1,684	17,664
DOUGLAS	3,837	127	4,006	448	8,419	6,163	0	38	6,201	172	0	1,062	15,854
FERRY	1,884	0	1	488	2,373	850	37	1	888	127	382	925	4,695
FRANKLIN	3,056	0	57	550	3,664	2,780	0	33	2,813	848	123	628	8,076
GARFIELD	1,390	0	2	185	1,577	750	0	4	754	40	386	120	2,877
GRANT	6,936	0	1,344	1,243	9,523	9,356	0	210	9,566	1,852	255	514	21,710
GRAYS HARBOR	2,516	0	417	388	3,322	5,902	1,375	58	7,335	3,853	160	2,976	17,646
ISLAND	2,409	0	12	322	2,742	8,798	0	5	8,803	943	0	7,534	20,022
JEFFERSON	1,517	0	310	195	2,022	3,710	328	5	4,043	632	397	1,670	8,764
KING	13,228	0	89	702	14,019	89,177	221	83	89,481	3,470	108	45,042	152,120
KITSAP	5,734	50	7	465	6,256	25,274	123	50	25,447	1,667	0	2,946	36,316
KITTITAS	2,190	0	52	458	2,700	4,246	1	8	4,255	181	230	1,816	9,182
KLICKITAT	2,871	0	416	546	3,833	4,620	345	27	4,992	120	0	1,374	10,319
LEWIS	3,506	202	327	429	4,463	11,139	1,396	11	12,546	1,436	715	3,493	22,653
LINCOLN	4,609	0	47	804	5,460	1,635	0	14	1,649	427	3,304	403	11,243
MASON	2,478	0	2,200	394	5,072	8,488	548	31	9,067	803	145	1,797	16,884
OKANOGAN	3,568	0	753	625	4,947	4,110	26	16	4,152	628	4,642	449	14,818
PACIFIC	1,437	0	25	600	2,062	3,012	11	589	3,612	1,305	10	607	7,596
PEND OREILLE	1,811	0	76	250	2,137	1,842	166	1	2,009	2,391	352	1,065	7,954
PIERCE	11,507	1,592	526	1,067	14,692	57,166	250	8,242	65,658	7,322	98	41,091	128,861
SAN JUAN	937	0	1	130	1,068	3,993	2	5	4,000	194	0	3,452	8,714
SKAGIT	3,908	0	55	532	4,496	15,133	648	70	15,851	5,945	0	5,748	32,040
SKAMANIA	901	0	699	1,316	2,916	1,835	0	337	2,172	909	1	236	6,234
SNOHOMISH	9,679	3,772	38	756	14,245	65,231	484	494	66,209	4,793	0	25,373	110,620
SPOKANE	9,327	660	47	1,106	11,139	24,315	91	16	24,422	9,756	8	7,165	52,490
STEVENS	4,054	0	51	700	4,804	5,469	474	7	5,950	0	223	373	11,350
THURSTON	6,319	198	111	524	7,153	19,431	366	23	19,820	5,584	1	8,892	41,450
WAHKIAKUM	926	0	235	343	1,504	124	61	1	186	260	1	1,002	2,953
WALLA WALLA	3,137	0	541	618	4,296	5,569	1	81	5,651	396	1	508	10,852
WHATCOM	4,366	0	390	537	5,293	19,208	275	40	19,523	1,017	397	2,785	29,015
WHITMAN	4,563	0	2	628	5,193	2,525	0	33	2,558	475	0	462	8,688
YAKIMA	6,417	184	65	1,097	7,763	12,594	46	39	12,679	824	547	3,438	25,251
TOTALS	156,217	9,474	20,431	21,800	207,922	495,740	9,150	10,819	515,709	70,614	13,626	200,012	1,007,883

% OF TOTAL 15.5% 0.9% 2.0% 2.2% 20.6% 49.2% 0.9% 1.1% 51.2% 7.0% 1.4% 19.8%

Source: County Reports to D.O.T. Secretary of Transportation

Table C

ACTUAL COUNTY ROAD RELATED EXPENDITURES

Including RAP and CAPP

2018

(thousands of dollars)

COUNTY	CONST	MAINT	ADMIN & OPER	FACIL	FERRY	BOND WARRANT RETT	TRAFFIC POLICING **	OTHER	TOTAL INCLUDES RAP & CAPP	RAP	CAPP
ADAMS	3,071	4,091	1,346	0	0	0	0	93	8,601	939	766
ASOTIN	418	2,350	966	11	0	0	0	14	3,759	790	152
BENTON	7,228	6,816	1,942	107	0	205	0 *	545	16,843	1,119	443
CHELAN	2,694	7,545	2,699	0	0	0	0	144	13,082	110	353
CLALLAM	4,335	8,316	3,543	0	0	0	800	134	17,128	898	347
CLARK	29,319	21,173	23,921	38	0	0	2 *	0	74,453	1,704	678
COLUMBIA	1,262	2,321	642	0	0	0	0 *	0	4,225	38	211
COWLITZ	2,342	8,581	3,373	81	0	18	0	951	15,346	1,930	330
DOUGLAS	2,264	5,471	2,972	40	0	534	0	107	11,388	4,006	448
FERRY	913	2,009	700	4	0	0	0 *	658	4,284	1	244
FRANKLIN	1,858	3,392	1,910	34	0	249	473	212	8,128	57	0
GARFIELD	617	1,866	396	0	0	0	0	66	2,945	2	185
GRANT	4,092	9,055	5,752	141	0	0	214	394	19,648	1,344	1,243
GRAYS HARBOR	6,074	9,140	1,709	22	0	0	0	89	17,034	417	388
ISLAND	8,175	6,484	7,774	0	0	0	0	120	22,553	12	322
JEFFERSON	1,769	4,969	1,463	15	0	77	0 *	244	8,537	310	195
KING	2,534	79,156	42,957	1,197	0	5,917	6,464	7,092	145,317	89	702
KITSAP	15,965	15,120	11,383	127	0	48	0 *	2,665	45,308	7	465
KITTITAS	2,938	6,728	1,951	0	0	0	0 *	80	11,697	52	458
KLICKITAT	2,321	4,926	1,558	0	0	0	0	46	8,851	416	546
LEWIS	2,043	14,427	4,407	9	0	7	1,403	138	22,434	327	429
LINCOLN	5,895	5,656	1,288	1	0	0	0 *	225	13,065	47	804
MASON	1,937	7,225	2,968	669	0	1,004	0 *	0	13,803	2,200	394
OKANOGAN	4,244	7,867	1,838	2	0	0	0	0	13,951	753	625
PACIFIC	2,482	5,242	900	0	0	0	339	219	9,182	25	0
PEND OREILLE	5,184	3,298	828	12	0	506	39	41	9,908	76	159
PIERCE	30,592	42,860	27,871	156	6,440	12	2,868	0	110,799	526	1,067
SAN JUAN	1,067	4,594	1,663	19	0	419	0 *	279	8,041	1	130
SKAGIT	8,921	9,658	5,343	25	1,995	0	0 *	2,019	27,961	55	399
SKAMANIA	947	2,653	641	282	0	0	0	2	4,525	699	487
SNOHOMISH	24,993	32,682	40,663	214	0	416	0	12,278	111,246	38	756
SPOKANE	17,462	21,739	9,695	3,864	0	1,946	0	404	55,110	47	1,106
STEVENS	416	8,508	1,112	0	0	0	0	34	10,070	51	700
THURSTON	12,534	15,920	10,811	653	0	0	99 *	5	40,022	111	524
WAHIAKUM	105	926	353	0	724	0	0	1	2,109	235	181
WALLA WALLA	2,339	4,634	2,252	0	0	0	0	202	9,427	541	618
WHATCOM	3,345	14,056	6,414	64	2,901	0	0 *	871	27,651	390	537
WHITMAN	2,354	5,662	1,493	25	0	0	111	0	9,645	2	628
YAKIMA	11,083	10,235	4,100	3	0	1,070	448	515	27,454	65	1,097
TOTALS	238,132	427,351	243,597	7,815	12,060	12,428	13,260	30,887	985,530	20,431	19,115

% OF TOTAL 24.2% 43.4% 24.7% 0.8% 1.2% 1.3% 1.3% 3.1%

Construction expenditure amounts do not include State ad & award Federal Aid participation

Source: County Reports to D.O.T. Secretary of Transportation

* Traffic Policing funds paid from diverted road levy

** Road Fund portion only

Table D
ANTICIPATED COUNTY ROAD FUND REVENUES
2019 BUDGETS
(thousands of dollars)

COUNTY	BEGIN FUND BAL	MOTOR VEHICLE FUEL TAX					TAXES			MSC			TOTAL
		COUNTY REGULAR	TIB	RAP	CAPP	OTHER STATE	PROP-ERTY	TIMBER EXCISE	OTHER TAXES	FED GRANTS	FED LANDS	OTHER	
ADAMS	5,100	4,250	0	227	818	64	1,888	0	8	3,131	1	65	15,552
ASOTIN	1,122	1,773	0	844	168	1,778	1,168	1	31	961	10	17	7,873
BENTON	7,600	3,388	0	1,400	443	100	5,965	0	120	106	0	2,255	21,377
CHELAN	2,500	2,318	0	129	309	324	7,447	1	25	1,590	255	936	15,834
CLALLAM	9,608	2,199	0	0	190	5,068	7,353	280	0	1,484	0	1,272	27,454
CLARK	18,900	6,593	2,108	1,955	577	0	37,161	100	20	2,185	4	20,403	90,006
COLUMBIA	1,000	1,440	0	1,538	210	0	1,496	1	4	1,377	0	46	7,112
COWLITZ	11,217	2,214	0	787	0	1,861	10,048	85	650	3,299	25	1,205	31,391
DOUGLAS	4,757	3,819	123	69	500	0	6,299	0	130	2,136	0	2,584	20,417
FERRY	200	1,953	0	733	300	4	824	0	51	1,943	418	101	6,527
FRANKLIN	950	2,957	0	142	513	250	1,684	0	35	4,352	141	1,925	12,949
GARFIELD	1,048	1,465	0	1,527	189	0	816	0	3	645	47	127	5,867
GRANT	5,498	6,700	0	1,193	1,247	25	9,500	0	100	4,127	152	299	28,841
GRAYS HARBOR	3,455	2,541	0	908	388	884	5,692	1,000	30	1,540	152	1,208	17,798
ISLAND	13,093	2,275	0	0	376	5,388	9,023	3	0	1,389	24	914	32,485
JEFFERSON	4,720	1,479	0	1,062	181	1,551	3,768	175	5	26	397	295	13,659
KING	43,380	12,700	0	0	700	1,100	90,177	0	35	8,069	140	32,060	188,361
KITSAP	28,397	5,550	300	100	533	3,548	28,394	0	1,300	2,378	0	5,386	75,886
KITTITAS	8,970	2,118	130	92	460	94	4,200	0	12	1,977	240	697	18,990
KLUCKITAT	114	2,700	0	180	540	0	4,400	0	0	2,140	0	1,083	11,157
LEWIS	1,830	3,717	3,600	2,814	430	1,860	12,120	1,200	15	3,505	800	2,457	34,348
LINCOLN	1,000	4,435	0	2,124	580	435	1,700	0	11	2,442	6	131	12,864
MASON	14,882	2,409	0	480	394	690	8,668	50	0	1,038	150	993	29,754
OKANOGAN	3,900	3,470	0	2,007	627	371	4,495	50	25	695	758	322	16,720
PACIFIC	2,680	1,390	0	413	180	0	3,056	500	10	324	25	79	8,657
PEND OREILLE	800	1,825	0	1,920	295	60	2,081	120	1	2,471	350	53	9,976
PIERCE	27,062	11,120	13	501	1,050	569	58,454	240	35	4,089	100	30,074	133,307
SAN JUAN	2,827	890	0	1,000	140	3,350	4,192	1	5	55	0	1,412	13,872
SKAGIT	9,292	3,213	0	1,195	668	813	15,375	350	104	3,277	240	1,833	36,360
SKAMANIA	1,606	941	0	0	136	653	1,795	210	5	375	2	130	5,853
SNOHOMISH	28,598	9,600	2,281	144	750	420	65,500	325	575	15,771	0	30,915	154,879
SPOKANE	13,357	9,888	1,545	4,276	1,108	6,621	25,372	50	20	7,536	8	2,860	72,641
STEVENS	7,000	3,900	0	62	702	100	5,543	256	42	3,202	85	243	21,135
THURSTON	16,332	5,321	167	1,298	527	386	19,100	270	24	5,073	1	5,935	54,434
WAHIAKUM	1,260	896	0	1,222	234	595	168	30	1	1,026	1	265	5,698
WALLA WALLA	5,000	3,020	0	18	600	1,726	5,543	0	75	8,767	0	303	25,052
WHATCOM	23,298	4,424	0	0	662	775	19,289	200	40	1,211	430	4,423	54,752
WHITMAN	6,000	4,550	0	2,500	550	0	2,400	0	30	3,000	0	87	19,117
YAKIMA	2,450	6,224	3,346	364	1,050	0	12,273	0	0	0	1,492	885	28,084
TOTAL	340,803	151,665	13,613	35,224	19,325	41,463	504,427	5,498	3,577	108,712	6,454	156,278	1,387,039

% OF TOTAL 24.6% 10.9% 1.0% 2.5% 1.4% 3.0% 36.4% 0.4% 0.3% 7.8% 0.5% 11.3%

Table E

ANTICIPATED COUNTY ROAD FUND EXPENDITURES

2019 BUDGETS

(thousands of dollars)

COUNTY	CONST	MAINT	ADMIN & OPER	FACIL	FERRY	BOND WARR RETT	TRAFFIC POLICING	OTHER	TOTAL	END FUND BAL	GRAND TOTAL
ADAMS	3,501	5,993	1,279	290	0	0	0	66	11,129	4,423	15,552
ASOTIN	1,400	2,184	879	20	0	0	0	0	4,483	3,390	7,873
BENTON	3,499	9,710	2,757	1,062	0	204	0	127	17,359	4,018	21,377
CHELAN	2,998	7,601	2,449	0	0	0	0	418	13,466	2,368	15,834
CLALLAM	9,895	9,302	3,239	56	0	0	800	160	23,452	4,002	27,454
CLARK	37,437	26,991	19,187	120	0	0	5	5,461	89,201	805	90,006
COLUMBIA	3,169	2,608	616	0	0	132	0	49	6,574	538	7,112
COWLITZ	5,812	9,799	4,079	694	0	72	0	7,752	28,208	3,183	31,391
DOUGLAS	4,135	7,460	3,765	699	0	536	0	1,019	17,614	2,803	20,417
FERRY	2,473	3,305	588	0	0	0	0	61	6,427	100	6,527
FRANKLIN	5,347	3,992	1,511	0	0	248	0	901	11,999	950	12,949
GARFIELD	2,793	1,887	300	0	0	0	0	148	5,128	739	5,867
GRANT	7,400	13,122	1,922	300	0	2	270	825	23,841	5,000	28,841
GRAYS HARBOR	4,615	8,737	2,015	176	0	0	550	9	16,102	1,696	17,798
ISLAND	6,724	8,361	3,725	817	0	0	825	2,937	23,389	9,096	32,485
JEFFERSON	2,910	5,032	1,552	40	0	76	0	63	9,673	3,986	13,659
KING	5,315	50,989	39,368	16	0	5,922	7,500	43,601	152,711	35,650	188,361
KITSAP	16,953	20,954	16,909	313	0	72	3,102	3,811	62,114	13,772	75,886
KITTITAS	6,486	5,091	1,488	0	0	0	0	216	13,281	5,709	18,990
KLICKITAT	3,970	5,400	1,400	0	0	0	0	20	10,790	367	11,157
LEWIS	10,900	17,081	4,436	0	0	0	0	1,618	34,035	313	34,348
LINCOLN	4,714	5,453	1,309	0	0	241	0	126	11,843	1,021	12,864
MASON	6,419	7,996	4,057	1,611	0	0	0	1,510	21,593	8,161	29,754
OKANOGAN	2,581	8,140	2,233	63	0	0	0	6	13,023	3,697	16,720
PACIFIC	1,337	4,718	1,840	0	0	0	353	0	8,248	409	8,657
PEND OREILLE	3,642	4,325	957	183	0	0	0	107	9,214	762	9,976
PIERCE	23,725	43,840	25,023	662	6,049	2,753	2,954	13,677	118,683	14,624	133,307
SAN JUAN	4,303	5,129	2,285	0	0	0	0	498	12,215	1,657	13,872
SKAGIT	7,192	0	15,359	0	2,891	0	1,350	866	27,658	8,702	36,360
SKAMANIA	1,076	2,573	751	20	0	0	0	0	4,420	1,433	5,853
SNOHOMISH	41,943	31,721	37,951	286	0	387	0	22,648	134,936	19,943	154,879
SPOKANE	21,812	25,113	13,405	4,266	0	1,862	73	476	67,007	5,634	72,641
STEVENS	3,935	10,000	1,145	3,550	0	0	0	50	18,680	2,455	21,135
THURSTON	11,036	18,137	12,382	850	0	88	142	924	43,559	10,875	54,434
WAHIAKUM	3,278	1,213	169	0	1,012	0	0	26	5,698	0	5,698
WALLA WALLA	13,118	5,698	2,308	0	0	0	0	267	21,391	3,661	25,052
WHATCOM	11,975	16,487	7,616	0	3,245	0	0	6,380	45,703	9,049	54,752
WHITMAN	8,897	7,110	1,491	732	0	0	121	222	18,573	544	19,117
YAKIMA	10,660	10,691	4,360	0	0	905	512	229	27,357	727	28,084
TOTAL	329,375	433,943	248,105	16,826	13,197	13,500	18,557	117,274	1,190,777	196,262	1,387,039

% OF TOTAL 23.7% 31.3% 17.9% 1.2% 1.0% 1.0% 1.3% 8.5% 85.9% 14.1%

Table F
COUNTY ROAD LEVY SUMMARY

As shown in 2019 Budgets

(thousands of dollars)

COUNTY	Unincorp Valuation	County Road Maximum Property Tax Levy (2.25)	County Road Property Tax Revenue Planned	Operating Transfer	Payment for Services	(RCW 36.33.220)		Revenue Remaining in Road Fund	Levy Shift from Road to Current Exp. (RCW 84.52.043)
						Diversion from Road To Current Expense	County Road Property Tax Exp. for Other Purposes		
						Traffic Policing expense paid by:			
ADAMS	1,376,089	3,096	1,888					1,888	0
ASOTIN	1,203,783	2,709	1,172					1,172	600
BENTON	4,595,884	10,341	6,664			575		6,090	0
CHELAN	6,591,154	14,830	7,993	220				7,773	500
CLALLAM	5,958,792	13,407	7,445		800			6,645	0
CLARK	30,271,653	68,111	41,717			4,533		37,184	0
COLUMBIA	770,038	1,733	1,690				Divert - Cur Exp/Solid Waste 115	1,575	0
COWLITZ	6,451,915	14,517	10,048					10,048	2,200
DOUGLAS	4,280,915	9,632	6,399					6,399	0
FERRY	594,157	1,337	1,337				Divert - Current Expense 508	1,337	0
FRANKLIN	2,827,489	6,362	1,858					1,858	1,700
GARFIELD	541,929	1,219	817					817	30
GRANT	5,602,493	12,606	9,652		270			9,382	0
GRAYS HARBOR	2,955,003	6,649	6,201		660			5,541	0
ISLAND	12,363,853	27,819	8,770	825				7,945	0
JEFFERSON	3,898,760	8,772	4,539			720		3,819	0
KING	48,607,292	109,366	92,254	7,500				84,754	0
KITSAP	22,540,163	50,715	28,942	3,095				25,848	0
KITTITAS	5,241,249	11,793	5,500			220		5,280	890
KLICKITAT	2,914,750	6,558	4,679					4,679	0
LEWIS	5,907,375	13,292	12,122	1,437				10,685	0
LINCOLN	1,255,918	2,826	2,189			500		1,689	0
MASON	7,502,257	16,880	10,946			2,160		8,786	0
OKANOGAN	3,034,017	6,827	4,491					4,491	300
PACIFIC	2,056,373	4,627	3,165		353			2,812	100
PEND OREILLE	1,317,846	2,965	2,084		50			2,034	0
PIERCE	49,004,822	110,261	73,146	2,954			Divert - Traffic and Courts 14,322 *	55,869	0
SAN JUAN	6,961,703	15,664	4,707			600		4,107	0
SKAGIT	9,369,217	21,081	15,562			1,350		14,212	0
SKAMANIA	1,346,922	3,031	1,875					1,875	0
SNOHOMISH	56,311,346	126,701	65,852	4,441				61,411	0
SPOKANE	17,066,056	38,399	25,751					25,751	0
STEVENS	3,456,196	7,776	5,543					5,543	500
THURSTON	16,827,971	37,863	20,589		137	1,500		18,952	2,500
WAHIAKUM	428,044	963	155					155	425
WALLA WALLA	2,846,994	6,406	5,647					5,647	0
WHATCOM	15,074,601	33,918	20,090			807		19,283	0
WHITMAN	1,784,305	4,015	2,595		122			2,473	0
YAKIMA	7,628,713	17,165	13,119	512				12,607	2,200
TOTALS	378,768,038	852,228	539,189	20,984	2,391	12,964	14,945	488,413	11,945

* Increased by voter approval (RCW 84.55.050)

Table G

COUNTY ROAD MILEAGE - 1/1/19

COUNTY	URBAN ROADS			RURAL ROADS			SYSTEM CENTERLINE TOTAL	PAVED ARTERIAL C/L MILES	PAVED ARTERIAL LANE-MILES	UNPAVED C/L MILES
	ACCESS	ARTERIAL	TOTAL	ACCESS	ARTERIAL	TOTAL				
ADAMS	10.759	3.726	14.49	1,094.865	665.473	1,760.34	1,774.82	547.153	1,090.646	1,125.879
ASOTIN	59.524	20.515	80.04	167.083	152.325	319.41	399.45	100.250	202.757	231.620
BENTON	126.206	51.774	177.98	393.670	290.070	683.74	861.72	296.550	593.100	252.298
CHELAN	54.355	25.910	80.27	357.040	209.865	566.91	647.17	235.495	471.640	123.325
CLALLAM	83.470	15.090	98.56	270.080	120.290	390.37	488.93	135.380	270.760	2.960
CLARK	423.208	142.440	565.65	279.160	270.940	550.10	1,115.75	413.380	886.765	12.800
COLUMBIA	0.000	0.000	0.00	271.678	229.101	500.78	500.78	141.444	282.888	353.996
COWLITZ	46.320	25.570	71.89	259.612	195.690	455.30	527.19	221.260	442.570	6.560
DOUGLAS	62.982	38.000	100.98	1,156.803	389.540	1,546.34	1,647.33	296.480	599.730	1,205.177
FERRY	0.000	0.000	0.00	477.110	232.320	709.43	709.43	177.625	355.628	507.905
FRANKLIN	19.804	11.283	31.09	610.068	336.930	947.00	978.09	342.878	684.286	393.225
GARFIELD	0.000	0.000	0.00	234.047	213.026	447.07	447.07	126.175	252.350	315.001
GRANT	62.628	30.874	93.50	1,536.767	871.447	2,408.21	2,501.72	830.742	1,669.002	1,021.273
GRAYS HARBOR	32.905	19.433	52.34	264.705	244.231	508.94	561.27	259.048	518.057	35.565
ISLAND	96.090	35.015	131.11	271.179	179.945	451.12	582.23	214.960	430.607	5.070
JEFFERSON	5.136	0.000	5.14	255.674	138.475	394.15	399.29	130.335	261.300	72.938
KING	630.643	207.704	838.35	388.023	242.260	630.28	1,468.63	449.964	939.481	51.033
KITSAP	411.981	167.240	579.22	195.321	140.029	335.35	914.57	307.269	622.754	2.885
KITTITAS	10.788	11.997	22.79	245.053	296.375	541.43	564.21	304.562	613.859	64.550
KLICKITAT	0.000	0.000	0.00	695.449	384.490	1,079.94	1,079.94	368.250	735.640	511.766
LEWIS	35.552	22.440	57.99	717.977	266.135	984.11	1,042.10	286.542	573.800	41.717
LINCOLN	0.000	0.000	0.00	1,338.228	658.520	1,996.75	1,996.75	386.724	773.448	1,537.678
MASON	27.742	9.556	37.30	316.320	263.457	579.78	617.08	263.420	526.520	44.782
OKANOGAN	7.132	2.802	9.93	834.902	490.618	1,325.52	1,335.45	418.601	837.202	656.229
PACIFIC	0.000	0.000	0.00	215.456	130.125	345.58	345.58	119.825	240.040	44.345
PEND OREILLE	0.000	0.000	0.00	380.412	180.856	561.27	561.27	167.490	334.980	265.609
PIERCE	636.681	430.165	1,066.85	249.390	250.770	500.16	1,567.01	680.935	1,442.130	13.020
SAN JUAN	0.000	0.000	0.00	182.160	88.693	270.85	270.85	88.693	177.386	37.950
SKAGIT	71.759	36.850	108.61	372.677	319.890	692.57	801.18	356.740	714.370	39.748
SKAMANIA	0.000	0.000	0.00	148.929	90.449	239.38	239.38	90.449	181.369	28.750
SNOHOMISH	631.599	187.737	819.34	446.113	330.380	776.49	1,595.83	515.117	1,057.140	10.975
SPOKANE	292.689	127.516	420.21	1,445.468	663.100	2,108.57	2,528.77	719.326	1,472.469	1,130.003
STEVENS	0.000	0.000	0.00	929.062	560.605	1,489.67	1,489.67	468.405	936.840	823.355
THURSTON	336.893	112.148	449.04	349.923	232.165	582.09	1,031.13	344.313	702.163	21.552
WAHKIAKUM	0.000	0.000	0.00	56.489	81.819	138.31	138.31	78.311	156.622	12.654
WALLA WALLA	42.322	34.367	76.69	452.578	423.464	876.04	952.73	412.863	825.896	364.582
WHATCOM	124.570	69.980	194.55	456.450	288.300	744.75	939.30	358.280	719.400	30.450
WHITMAN	0.000	0.000	0.00	1,281.891	613.991	1,895.88	1,895.88	424.308	848.616	1,449.766
YAKIMA	121.350	101.600	222.95	773.750	646.250	1,420.00	1,642.95	726.010	1,467.640	538.822
STATEWIDE	4,465.09	1,941.73	6,406.82	20,371.56	12,382.41	32,753.97	39,160.79	12,805.55	25,911.85	13,387.81
EASTERN	870.539	460.364	1,330.90	14,675.924	8,508.366	23,184.29	24,515.19	7,491.331	15,048.617	12,872.059
WESTERN	3,594.55	1,481.37	5,075.92	5,695.64	3,874.04	9,569.68	14,645.60	5,314.22	10,863.23	515.75

County Road Log Data certified 1/1/2019 by the County Road Administration Board

Table H

COUNTY ARTERIAL PRESERVATION PROGRAM
2018 ACCOMPLISHMENT SUMMARY

COUNTY	1/1/17 Eligible Arterial System C/Line (miles)	Total CAPP * Rec'd (\$1,000)	Total CAPP * Expended (\$1,000)	Total Eligible Expenses (\$1,000)	CAPP * Contri- bution (%)	2018 Arterial Prep/ Repair (\$1,000)	2018 Arterial Sealcoat C/Line (miles)	2018 Arterial Overlay C/Line (miles)	2018 Total Resurf. C/Line (miles)	2018 Percent System Resurf'd
ADAMS	547.50	815.2	766.0	766.0	100.0	131.1	39.2	0.0	39.2	7.2
ASOTIN	100.30	151.8	151.7	544.9	27.9	0.0	7.0	0.0	7.0	6.9
BENTON	296.70	443.2	443.2	928.7	47.7	0.0	54.4	0.0	54.4	18.3
CHELAN	235.66	353.2	353.2	905.6	39.0	359.5	14.2	0.0	14.2	6.0
CLALLAM	135.19	372.1	346.9	830.5	41.8	162.1	31.9	0.0	31.9	23.6
CLARK	420.95	677.7	677.7	5,217.1	13.0	1,048.1	17.7	7.4	25.1	6.0
COLUMBIA	141.37	211.1	211.1	358.0	59.0	358.0	0.0	0.0	0.0	0.0
COWLITZ	221.26	330.5	330.5	1,345.9	24.6	642.6	20.9	0.7	21.6	9.7
DOUGLAS	296.99	448.4	448.4	989.6	45.3	304.9	17.3	1.5	18.8	6.3
FERRY	177.63	488.2	243.7	544.3	44.8	87.2	15.9	0.0	15.9	9.0
FRANKLIN	342.98	550.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GARFIELD	123.58	184.5	184.5	225.1	82.0	0.0	8.2	0.0	8.2	6.7
GRANT	828.16	1242.9	1242.9	5,356.8	23.2	1,379.5	55.7	6.9	62.6	7.6
GRAYS HARBOR	260.23	388.5	388.5	1,497.4	25.9	539.0	31.5	0.0	31.5	12.1
ISLAND	214.94	321.5	321.5	633.3	50.8	0.0	0.0	3.1	3.1	1.4
JEFFERSON	130.34	195.1	195.1	474.8	41.1	82.1	6.2	0.1	6.3	4.8
KING	450.37	702.0	702.0	11,161.4	6.3	2,004.7	0.0	24.5	24.5	5.4
KITSAP	307.72	465.0	465.0	2,165.9	21.5	672.1	9.0	9.1	18.1	5.9
KITTITAS	304.56	457.9	457.9	1,031.7	44.4	0.0	39.2	0.0	39.2	12.9
KLICKITAT	366.05	546.0	546.0	665.7	82.0	7.6	22.4	0.0	22.4	6.1
LEWIS	286.54	428.5	428.5	809.6	52.9	165.3	34.2	0.2	34.4	12.0
LINCOLN	384.74	804.2	804.2	1,184.4	67.9	229.7	51.7	0.0	51.7	13.4
MASON	263.24	394.1	394.1	1,684.5	23.4	108.2	13.4	3.6	17.0	6.4
OKANOGAN	418.58	625.1	625.1	1,096.6	57.0	243.7	42.3	0.0	42.3	10.1
PACIFIC	120.01	600.0	0.0	464.4	0.0	231.0	0.3	1.5	1.8	1.5
PEND OREILLE	167.49	250.1	159.1	159.1	100.0	159.1	0.0	0.0	0.0	0.0
PIERCE	675.96	1066.8	1066.8	4,231.5	25.2	561.1	28.9	7.0	35.9	5.3
SAN JUAN	86.80	129.6	129.6	550.1	23.6	30.4	9.3	0.0	9.3	10.7
SKAGIT	355.95	532.2	398.5	1,323.7	30.1	215.3	36.1	1.3	37.4	10.5
SKAMANIA	90.45	1,315.8	487.0	918.9	53.0	147.8	10.0	2.6	12.5	13.9
SNOHOMISH	492.67	755.9	755.9	4,645.4	16.3	1,801.9	27.2	4.2	31.3	6.4
SPOKANE	720.05	1105.5	1105.5	5,755.2	19.2	3,081.4	66.9	2.9	69.8	9.7
STEVENS	468.41	699.5	699.5	926.4	75.5	460.0	28.0	0.0	28.0	6.0
THURSTON	345.10	524.3	524.3	5,007.5	10.5	1,236.5	38.4	7.5	45.8	13.3
WAHKIAKUM	78.31	343.2	180.8	180.8	100.0	14.2	3.4	0.0	3.4	4.3
WALLA WALLA	413.38	617.8	617.8	906.5	68.2	492.9	18.1	0.0	18.1	4.4
WHATCOM	358.28	537.2	537.2	938.9	57.2	464.5	21.0	0.0	21.0	5.9
WHITMAN	421.03	628.2	628.2	2,752.1	22.8	506.7	32.1	5.1	37.2	8.8
YAKIMA	726.40	1096.6	1096.6	3,129.0	35.0	112.5	55.0	11.5	66.5	9.2
TOTAL	12,775.8	21,800.0	19,114.7	72,307.3	26.4%	18,040.8	906.6	100.6	1,007.2	
										% System Resurfaced: 7.9%

* Includes \$2,422,000 statewide Motor Vehicle Account (MVA) contribution for County Arterial Preservation and carried forward CAPA amounts from prior years.

Table I

COUNTY FREIGHT AND GOODS SYSTEM - 1/1/2019

COUNTY	Freight and Goods System - Truck Route Class					Total Miles FGTS	Total Adequate	% Adequate
	T-1	T-2	T-3	T-4	T-5			
ADAMS			146.79	208.68	301.22	656.69	258.72	39.4%
ASOTIN		0.15	22.95	20.27	0.00	43.37	37.91	87.4%
BENTON			253.26	112.09	35.98	401.33	168.59	42.0%
CHELAN			50.05	92.59	39.43	182.07	58.16	31.9%
CLALLAM			73.03	61.55	11.01	145.59	3.75	2.6%
CLARK	0.22	11.22	210.41	152.68		374.53	297.40	79.4%
COLUMBIA			10.30	49.06	146.78	206.14	11.20	5.4%
COWLITZ			77.72	57.12	3.00	137.84	116.12	84.2%
DOUGLAS			8.04	84.43	171.15	263.62	15.31	5.8%
FERRY			109.25	115.71		224.96	27.31	12.1%
FRANKLIN			111.39	154.05	252.51	517.95	247.76	47.8%
GARFIELD				10.13	125.75	135.88	113.03	83.2%
GRANT		10.19	269.07	258.87	305.10	843.23	58.14	6.9%
GRAYS HARBOR			210.91	7.12	0.00	218.03	191.43	87.8%
ISLAND			13.21	62.13	0.20	75.54	74.39	98.5%
JEFFERSON			37.44	35.21	65.75	138.40	108.06	78.1%
KING	0.70	36.41	273.01	92.69		402.81	367.99	91.4%
KITSAP		2.39	220.56	100.06		323.01	268.13	83.0%
KITTITAS		3.62	150.17	176.63	0.08	330.50	254.33	77.0%
KLICKITAT			242.72	194.34		437.06	148.87	34.1%
LEWIS		1.98	124.93	261.60	102.44	490.96	270.65	55.1%
LINCOLN			165.13	259.97	377.27	802.37	467.03	58.2%
MASON		0.20	104.44	85.80		190.44	54.98	28.9%
OKANOGAN			100.51	117.32	181.68	399.51	6.29	1.6%
PACIFIC				136.49		136.49	27.97	20.5%
PEND OREILLE			38.39	125.40	62.21	226.00	0.49	0.2%
PIERCE	5.68	52.62	316.27	29.71	7.70	411.98	382.90	92.9%
SAN JUAN			23.90	64.13		88.03	56.32	64.0%
SKAGIT		4.48	140.82	95.10		240.40	111.50	46.4%
SKAMANIA			22.47	58.73		81.20	80.78	99.5%
SNOHOMISH	4.31	8.19	328.16	107.08	60.70	508.43	314.56	61.9%
SPOKANE	5.70	25.86	453.72	106.91	109.26	701.45	397.79	56.7%
STEVENS			91.82	164.52	78.95	335.29	12.82	3.8%
THURSTON		13.32	252.84	109.26	4.13	379.56	28.20	7.4%
WAHKIAKUM			17.12	39.66	5.30	62.08	45.36	73.1%
WALLA WALLA		1.89	103.47	261.00	31.23	397.59	53.45	13.4%
WHATCOM		6.36	166.30	26.73	0.00	199.39	70.21	35.2%
WHITMAN			204.80	201.07	88.71	494.58	214.74	43.4%
YAKIMA		7.43	380.33	230.98	55.80	674.54	664.60	98.5%
TOTAL	16.61	186.31	5,525.69	4,526.86	2,623.35	12,878.82	6,087.21	47.3%

County Road Log Data Certified 1/1/2019 by the County Road Administration Board

Table J
2018 COUNTY FORCES SUMMARY

COUNTY	2018 County Forces Limit	2018 Proposed County Forces Construction Expenditure	2018 Actual County Forces Construction Expenditure	% Expended of County Forces Limit
ADAMS	823,206	126,700	165,317	20.1%
ASOTIN	808,061	165,000	0	0.0%
BENTON	1,789,594	50,000	0	0.0%
CHELAN	1,269,345	140,000	18,845	1.5%
CLALLAM	1,267,845	374,000	67,867	5.4%
CLARK	3,394,501	959,000	166,693	4.9%
COLUMBIA	808,106	0	153,862	19.0%
COWLITZ	1,269,781	0	0	0.0%
DOUGLAS	1,282,479	345,000	1,282,188	100.0%
FERRY	809,775	735,000	617,472	76.3%
FRANKLIN	1,274,682	0	786,880	61.7%
GARFIELD	807,218	104,000	27,196	3.4%
GRANT	1,306,017	625,000	782,869	59.9%
GRAYS HARBOR	1,270,415	150,000	0	0.0%
ISLAND	1,269,767	435,310	271,569	21.4%
JEFFERSON	1,262,252	0	0	0.0%
KING	3,512,977	90,000	15,858	0.5%
KITSAP	1,812,506	1,445,000	573,930	31.7%
KITTITAS	1,267,684	50,000	36,817	2.9%
KLICKITAT	814,884	425,000	539,359	66.2%
LEWIS	1,278,625	1,085,000	52,434	4.1%
LINCOLN	823,822	810,000	460,227	55.9%
MASON	1,270,104	190,000	61,513	4.8%
OKANOGAN	1,278,962	443,397	274,356	21.5%
PACIFIC	807,427	0	599,949	74.3%
PEND OREILLE	809,014	180,000	90,077	11.1%
PIERCE	3,493,763	515,000	145,359	4.2%
SAN JUAN	804,843	625,000	258,467	32.1%
SKAGIT	1,278,234	299,122	51,595	4.0%
SKAMANIA	804,839	0	0	0.0%
SNOHOMISH	3,455,458	1,492,000	332,719	9.6%
SPOKANE	3,447,980	40,000	0	0.0%
STEVENS	1,282,550	595,000	253,174	19.7%
THURSTON	1,812,176	1,286,366	581,945	32.1%
WAHKIAKUM	804,789	222,000	21,817	2.7%
WALLA WALLA	1,275,336	0	0	0.0%
WHATCOM	1,799,745	1,065,000	126,688	7.0%
WHITMAN	1,287,034	365,000	884,011	68.7%
YAKIMA	1,822,730	527,000	0	0.0%
TOTAL	57,758,526	15,958,895	9,701,053	16.8%

**2019 COUNTY FREIGHT AND GOODS SYSTEM
STATUS REPORT
EXECUTIVE SUMMARY**

The Washington State Legislature has recognized that Washington State is uniquely positioned as a gateway to the global economy. Washington's economy, as one of the most trade-dependent states per capita in the nation, is highly dependent on an efficient multimodal transportation network in order to remain competitive. The vitality of the state's economy is placed at risk by growing traffic congestion that impedes the safe and efficient movement of goods. Freight corridors that serve international and domestic interstate and intrastate trade and those freight corridors that enhance the state's competitive position through regional and global gateways are strategically important. Ownership of the freight mobility network is fragmented and spread across various public jurisdictions, private companies, and state and national borders. Transportation projects have grown in complexity and size, requiring more resources and longer implementation time frames. State investments in projects that enhance or mitigate freight movements should pay special attention to solutions that utilize a corridor solution to address freight mobility issues with important transportation and economic impacts well beyond any local area.

Transportation infrastructure is critical to getting agriculture products to market. Agriculture employed more than 97,810 people in Washington in 2017, about 85 percent of whom work in eastern Washington.¹ Washington firms and farmers use the freight transportation system to ship fruit, grain, vegetables, and livestock and feed from the farm to warehouses and processing plants, and across the country and around the world. The state's freight transportation system must function at all jurisdictional levels from international, national, to state and local.

In the evolving global economy, agriculture has become a year-round activity and products are on the move year-round. Because of this, access to all-season roads, which heavy trucks can drive on throughout the year, is an important measurement for agricultural transportation. Roads and bridges that are not all-season capable are subject to weight restrictions during the annual thaw period (late winter-early spring) to prevent structural damage. In many eastern Washington counties, as well as in parts of western Washington, weight restrictions on County roads seasonally restrict the movement of agricultural products from farm to packing shed to processing plant, and timber from forest to mill.

The County Freight and Goods Transportation System (FGTS) is made-up of 12,950.19 centerline miles of arterial, collector and local access roads. Of the 39,160.79 total system centerline miles of county roads, 31.1% are classified as FGTS and nearly 88% of these routes are in rural areas.

¹ 2017 Agricultural Workforce Report. Washington Employment Security Department. (Sept. 2019).

Despite the growing importance of the ability to ship agricultural products year-round, the mileage and percentage of county roads that are posted for seasonal weight restrictions and fail to meet all-season (all weather) criteria has grown from 2012 to 2019. Eastern Washington has 6,099.03 miles of county roads inadequate² for all-season (all weather) use and there are another 2,210.14 miles of county roads in Western Washington inadequate for all-season (all weather) use. Maintenance and reconstruction costs have long since grown beyond available resources. The worksheet notes the comparison between the 2012 and 2019 FGTS mileage and the percentage of all-season (all weather) roads by county.

The purpose of the County Freight and Goods System (CFGS) Status Report is:

1. To develop criteria for determining which roads should be included in the CFGS;
2. To obtain the field data necessary to determine which roads are CFGS routes;
3. To establish the CFGS network, statewide;
4. To develop criteria to evaluate deficiencies in the CFGS;
5. To obtain a needs assessment to determine the costs to improve the CFGS to all-season standards; and
6. To provide information on County Roads Strategic Freight Corridors.

The counties will monitor changes in their truck routes and obtain truck classification and volume information on new and existing truck routes annually. This information is used by each County to develop their priority arrays, deficiency and needs analysis, six-year programs, and annual road improvement programs. This information will also be used to provide an updated annual status report on the County Freight and Goods System, and be provided to WSDOT to update the Freight and Goods Transportation System inventory and to FMSIB to update their Strategic Corridors inventory.

² The County Road Administration Board reports that statewide there are 8,309.17 centerline miles of inadequate roads as defined by the factors in the 1993 Cost Responsibility Study using Minimum Tolerable Conditions (MTC). Pavement Width and Structural Adequacy are used to help identify the inadequate road segments mileage. The data derived for MTC is managed in the Mobility Road Log, which is updated annually by the counties.

County Freight and Goods System											Mileage Summaries			
County Name	Total Miles					Percent of System			Function Class - FGTS			Rural/Urban - FGTS		County Arterial
	All Roads	CFGS	FGTS	CFGS	FGTS	Arterial	Collector	Access	Rural	Urban				
1 Adams	1774.82	656.69	656.69	37.0%	37.0%	0.01	523.37	133.31	650.87	5.83	523.38			
2 Asotin	399.45	57.71	43.37	14.4%	10.9%	9.55	33.54	0.29	32.75	10.63	43.08			
3 Benton	861.72	401.33	401.33	46.6%	46.6%	0.00	303.33	97.99	336.50	64.83	303.33			
4 Chelan	647.17	182.07	182.07	28.1%	28.1%	5.93	154.04	22.10	160.69	21.38	159.97			
5 Clallam	488.93	145.59	145.59	29.8%	29.8%	3.54	91.82	50.23	132.36	13.23	95.36			
6 Clark	1115.75	374.53	374.53	33.6%	33.6%	83.85	287.94	2.74	241.93	132.60	371.79			
7 Columbia	500.78	206.14	206.14	41.2%	41.2%	0.00	185.36	20.78	206.14	0.00	185.36			
8 Cowlitz	527.19	137.84	137.84	26.1%	26.1%	4.13	116.67	17.04	131.54	6.30	120.80			
9 Douglas	1647.33	263.62	263.62	16.0%	16.0%	12.33	224.83	26.46	246.83	16.79	237.16			
10 Ferry	709.43	231.08	224.96	32.6%	31.7%	0.00	194.86	30.10	224.96	0.00	194.86			
11 Franklin	978.09	517.95	517.95	53.0%	53.0%	2.08	329.38	186.49	511.88	6.07	331.46			
12 Garfield	447.07	135.88	135.88	30.4%	30.4%	0.00	134.52	1.36	135.88	0.00	134.52			
13 Grant	2501.72	843.23	843.23	33.7%	33.7%	12.41	644.26	186.57	819.99	23.24	656.67			
14 Grays Harbor	561.27	218.03	218.03	38.8%	38.8%	7.40	176.64	34.00	209.48	8.55	184.03			
15 Island	582.23	75.54	75.54	13.0%	13.0%	15.44	57.72	2.38	55.89	19.65	73.16			
16 Jefferson	399.29	150.37	138.40	37.7%	34.7%	0.00	112.99	25.41	137.37	1.03	112.99			
17 King	1468.63	402.81	402.81	27.4%	27.4%	146.98	222.69	33.14	198.52	204.29	369.67			
18 Kitsap	914.57	323.01	323.01	35.3%	35.3%	109.37	162.22	51.42	143.55	179.46	271.59			
19 Kittitas	564.21	330.50	330.50	58.6%	58.6%	1.14	260.38	68.98	316.22	14.29	261.52			
20 Klickitat	1079.94	460.86	437.06	42.7%	40.5%	0.00	330.33	106.73	437.06	0.00	330.33			
21 Lewis	1042.10	493.68	490.96	47.4%	47.1%	13.04	272.51	205.40	459.32	31.63	285.55			
22 Lincoln	1996.75	802.37	802.37	40.2%	40.2%	18.96	527.97	255.44	802.37	0.00	546.93			
23 Mason	617.08	190.44	190.44	30.9%	30.9%	0.65	176.61	13.18	181.10	9.33	177.26			
24 Okanogan	1335.45	399.51	399.51	29.9%	29.9%	0.00	336.70	62.81	398.19	1.32	336.70			
25 Pacific	345.58	136.49	136.49	39.5%	39.5%	0.00	86.78	49.71	136.49	0.00	86.78			
26 Pend Oreille	561.27	235.76	226.00	42.0%	40.3%	0.00	173.43	52.57	226.00	0.00	173.43			
27 Pierce	1567.01	411.98	411.98	26.3%	26.3%	273.13	119.75	19.10	144.92	267.06	392.88			
28 San Juan	270.85	88.03	88.03	32.5%	32.5%	0.00	75.86	12.17	88.03	0.00	75.86			
29 Skagit	801.18	240.40	240.40	30.0%	30.0%	25.08	210.51	4.81	213.11	27.28	235.59			
30 Skamania	239.38	83.36	81.20	34.8%	33.9%	8.64	64.17	8.38	81.20	0.00	72.81			
31 Snohomish	1595.83	508.93	508.43	31.9%	31.9%	123.16	313.29	71.98	321.06	187.37	436.45			
32 Spokane	2528.77	701.45	701.45	27.7%	27.7%	62.46	530.03	108.96	633.10	68.35	592.49			
33 Stevens	1489.67	335.29	335.29	22.5%	22.5%	0.00	324.18	11.11	335.29	0.00	324.18			
34 Thurston	1031.13	379.56	379.56	36.8%	36.8%	61.96	255.11	62.49	260.65	118.91	317.07			
35 Wahkiakum	138.31	62.08	62.08	44.9%	44.9%	0.00	56.32	5.76	62.08	0.00	56.32			
36 Walla Walla	952.73	397.59	397.59	41.7%	41.7%	19.38	342.86	35.34	368.82	28.77	362.25			
37 Whatcom	939.30	199.39	199.39	21.2%	21.2%	16.49	166.83	16.07	163.85	35.54	183.32			
38 Whitman	1895.88	494.58	494.58	26.1%	26.1%	0.00	437.37	57.21	494.58	0.00	437.37			
39 Yakima	1642.95	674.54	674.54	41.1%	41.1%	42.54	528.73	103.27	587.94	86.60	571.27			
Total Miles	39,160.79	12,950.19	12,878.82	33.1%	32.9%	1,079.63	9,545.89	2,253.30	11,288.49	1,590.33	10,625.52			

COUNTY ROAD LOG CERTIFIED

Centerline Miles of Road

County Freight and Goods System											FGTS Mileage by Functional Class		
County Name	Arterial Miles		Collector Miles		Access Miles		All FGTS Miles						
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Total				
1 Adams	0.00	0.01	519.65	3.72	131.21	2.10	650.87	5.83	656.69				
2 Asotin	0.47	9.08	32.28	1.26	0.00	0.29	32.75	10.63	43.37				
3 Benton	0.00	0.00	263.34	39.99	73.16	24.84	336.50	64.83	401.33				
4 Chelan	0.71	5.22	140.57	13.47	19.41	2.69	160.69	21.38	182.07				
5 Clallam	0.00	3.54	87.33	4.49	45.03	5.20	132.36	13.23	145.59				
6 Clark	12.57	71.28	228.02	59.92	1.34	1.40	241.93	132.60	374.53				
7 Columbia	0.00	0.00	185.36	0.00	20.78	0.00	206.14	0.00	206.14				
8 Cowlitz	0.62	3.51	113.92	2.75	17.00	0.04	131.54	6.30	137.84				
9 Douglas	0.00	12.33	220.75	4.08	26.08	0.38	246.83	16.79	263.62				
10 Ferry	0.00	0.00	194.86	0.00	30.10	0.00	224.96	0.00	224.96				
11 Franklin	0.00	2.08	325.39	3.99	186.49	0.00	511.88	6.07	517.95				
12 Garfield	0.00	0.00	134.52	0.00	1.36	0.00	135.88	0.00	135.88				
13 Grant	2.02	10.39	635.43	8.83	182.55	4.01	819.99	23.24	843.23				
14 Grays Harbor	6.83	0.57	168.65	7.99	34.00	0.00	209.48	8.55	218.03				
15 Island	0.00	15.44	54.69	3.03	1.20	1.18	55.89	19.65	75.54				
16 Jefferson	0.00	0.00	112.99	0.00	24.38	1.03	137.37	1.03	138.40				
17 King	39.69	107.29	138.09	84.60	20.75	12.40	198.52	204.29	402.81				
18 Kitsap	12.92	96.46	105.45	56.77	25.19	26.24	143.55	179.46	323.01				
19 Kittitas	0.00	1.14	249.95	10.44	66.27	2.71	316.22	14.29	330.50				
20 Klickitat	0.00	0.00	330.33	0.00	106.73	0.00	437.06	0.00	437.06				
21 Lewis	0.00	13.04	263.73	8.79	195.60	9.81	459.32	31.63	490.96				
22 Lincoln	18.96	0.00	527.97	0.00	255.44	0.00	802.37	0.00	802.37				
23 Mason	0.00	0.65	168.76	7.84	12.34	0.84	181.10	9.33	190.44				
24 Okanogan	0.00	0.00	335.38	1.32	62.81	0.00	398.19	1.32	399.51				
25 Pacific	0.00	0.00	86.78	0.00	49.71	0.00	136.49	0.00	136.49				
26 Pend Oreille	0.00	0.00	173.43	0.00	52.57	0.00	226.00	0.00	226.00				
27 Pierce	63.03	210.10	68.49	51.26	13.40	5.70	144.92	267.06	411.98				
28 San Juan	0.00	0.00	75.86	0.00	12.17	0.00	88.03	0.00	88.03				
29 Skagit	9.36	15.72	201.25	9.26	2.50	2.31	213.11	27.28	240.40				
30 Skamania	8.64	0.00	64.17	0.00	8.38	0.00	81.20	0.00	81.20				
31 Snohomish	53.06	70.10	226.41	86.89	41.60	30.39	321.06	187.37	508.43				
32 Spokane	9.63	52.83	518.50	11.53	104.97	3.99	633.10	68.35	701.45				
33 Stevens	0.00	0.00	324.18	0.00	11.11	0.00	335.29	0.00	335.29				
34 Thurston	4.29	57.67	211.26	43.85	45.10	17.39	260.65	118.91	379.56				
35 Wahkiakum	0.00	0.00	56.32	0.00	5.76	0.00	62.08	0.00	62.08				
36 Walla Walla	2.36	17.02	334.18	8.69	32.28	3.06	368.82	28.77	397.59				
37 Whatcom	0.00	16.49	147.78	19.05	16.07	0.00	163.85	35.54	199.39				
38 Whitman	0.00	0.00	437.37	0.00	57.21	0.00	494.58	0.00	494.58				
39 Yakima	3.26	39.28	488.76	39.97	95.92	7.35	587.94	86.60	674.54				
Total Miles	248.40	831.22	8,952.13	593.77	2,087.96	165.33	11,288.49	1,590.33	12,878.82				

COUNTY ROAD LOG

1/1/2019

Centerline Miles of Road

Truck Route Classes

In order to be integrated with the statewide FGTS, the CFGS uses the same method of classification as the FGTS. The current FGTS classes are based on gross annual tons of freight and goods on the route. To determine gross annual tons on each road, every county must have accurate truck volumes and classification information on its road system. All counties are obtaining the needed information as part of their annual traffic counting and classification program.

TRUCK ROUTE CLASSES

<u>CFGS Class</u>	<u>FGTS Class</u>	Description
T-1	T-1	Over 10 million gross tons annually.
T-2	T-2	4 to 10 million gross tons annually.
T-3	T-3	300,000 to 4 million gross tons annually.
T-4	T-4	100,000 to 300,000 gross tons annually.
T-5	T-5	Seasonal – Over 100,000 gross tons in 60 days.
T-6		Cyclical – Over 100,000 gross tons annually, but not every year.
T-7		Missing Link – Over 100,000 gross tons annually if improved.
T-8		Over 100,000 gross tons annually if Snake River drawdown occurs.

Three additional truck route classes, T-6, T-7, and T-8 have been created for the purposes of this study to allow the counties to better classify County Freight and Goods System (CFGS) routes in the future. The inclusion of T-6, T-7, and T-8 will allow these routes to be identified and properly managed. The table above shows the Truck Route Classes. Class T-1 through T-5 are the same as the current Freight and Goods Transportation System (FGTS) truck route classes established by the Transportation Commission.

T-6 is a road that has over 100,000 gross annual tons, but not in every year. These are cyclic truck routes. An example is lowland logging. Certain roads will carry many loaded trucks during the year(s) that their tributary areas are being logged, but these areas are logged only once every 10 to 25 years. During the harvest years, these roads will likely meet the criteria for a FGTS/CFGS route, but only in those years. While there may be better ways to manage these routes than reconstruction to FGTS standards (e.g., haul road agreements), this classification will provide an inventory of these routes.

T-7 is a route that would be a FGTS route but there is some problem with the road that prevents truck traffic from using it. If these problems were eliminated, the roads would become preferred truck routes with a savings of time and/or distance over currently used routes. An example of such a route comes from Spokane County: There is a road, the use of which would save trucks both time and distance, but there is an inadequate railroad crossing that prevents use of the route. If the railroad crossing were improved,

trucks would use the road. Using this classification will provide a list of road improvements that would benefit the movement of freight and goods.

T-8 was created for the Lower Snake River Drawdown Study (1999), to inventory those county roads that would become an FGTS route if barge traffic were removed from the Snake River. As grain is hauled from farm or storage to the Tri-Cities or beyond rather than to the barge loading facilities on the Snake River, truck travel patterns will change. Truck Route Class T-8 will identify those routes that will likely become FGTS/CFGs routes if this happens.

County Freight and Goods System

Mileage by Truck Route Class

County Name	Total Miles		Truck Route Class							
	CFGs	FGTS	T1	T2	T3	T4	T5	T6	T7	T8
1 Adams	656.69	656.69	0.00	0.00	146.79	208.68	301.22	0.00	0.00	0.00
2 Asotin	57.71	43.37	0.00	0.15	22.95	20.27	0.00	14.34	0.00	0.00
3 Benton	401.33	401.33	0.00	0.00	253.26	112.09	35.98	0.00	0.00	0.00
4 Chelan	182.07	182.07	0.00	0.00	50.05	92.59	39.43	0.00	0.00	0.00
5 Clallam	145.59	145.59	0.00	0.00	73.03	61.55	11.01	0.00	0.00	0.00
6 Clark	374.53	374.53	0.22	11.22	210.41	152.68	0.00	0.00	0.00	0.00
7 Columbia	206.14	206.14	0.00	0.00	10.30	49.06	146.78	0.00	0.00	0.00
8 Cowlitz	137.84	137.84	0.00	0.00	77.72	57.12	3.00	0.00	0.00	0.00
9 Douglas	263.62	263.62	0.00	0.00	8.04	84.43	171.15	0.00	0.00	0.00
10 Ferry	231.08	224.96	0.00	0.00	109.25	115.71	0.00	0.00	6.12	0.00
11 Franklin	517.95	517.95	0.00	0.00	111.39	154.05	252.51	0.00	0.00	0.00
12 Garfield	135.88	135.88	0.00	0.00	0.00	10.13	125.75	0.00	0.00	0.00
13 Grant	843.23	843.23	0.00	10.19	269.07	258.87	305.10	0.00	0.00	0.00
14 Grays Harbor	218.03	218.03	0.00	0.00	210.91	7.12	0.00	0.00	0.00	0.00
15 Island	75.54	75.54	0.00	0.00	13.21	62.13	0.20	0.00	0.00	0.00
16 Jefferson	150.37	138.40	0.00	0.00	37.44	35.21	65.75	11.97	0.00	0.00
17 King	402.81	402.81	0.70	36.41	273.01	92.69	0.00	0.00	0.00	0.00
18 Kitsap	323.01	323.01	0.00	2.39	220.56	100.06	0.00	0.00	0.00	0.00
19 Kittitas	330.50	330.50	0.00	3.62	150.17	176.63	0.08	0.00	0.00	0.00
20 Klickitat	460.86	437.06	0.00	0.00	242.72	194.34	0.00	23.80	0.00	0.00
21 Lewis	493.68	490.96	0.00	1.98	124.93	261.60	102.44	2.72	0.00	0.00
22 Lincoln	802.37	802.37	0.00	0.00	165.13	259.97	377.27	0.00	0.00	0.00
23 Mason	190.44	190.44	0.00	0.20	104.44	85.80	0.00	0.00	0.00	0.00
24 Okanogan	399.51	399.51	0.00	0.00	100.51	117.32	181.68	0.00	0.00	0.00
25 Pacific	136.49	136.49	0.00	0.00	0.00	136.49	0.00	0.00	0.00	0.00
26 Pend Oreille	235.76	226.00	0.00	0.00	38.39	125.40	62.21	8.97	0.79	0.00
27 Pierce	411.98	411.98	5.68	52.62	316.27	29.71	7.70	0.00	0.00	0.00
28 San Juan	88.03	88.03	0.00	0.00	23.90	64.13	0.00	0.00	0.00	0.00
29 Skagit	240.40	240.40	0.00	4.48	140.82	95.10	0.00	0.00	0.00	0.00
30 Skamania	83.36	81.20	0.00	0.00	22.47	58.73	0.00	0.00	2.16	0.00
31 Snohomish	508.93	508.43	4.31	8.19	328.16	107.08	60.70	0.50	0.00	0.00
32 Spokane	701.45	701.45	5.70	25.86	453.72	106.91	109.26	0.00	0.00	0.00
33 Stevens	335.29	335.29	0.00	0.00	91.82	164.52	78.95	0.00	0.00	0.00
34 Thurston	379.56	379.56	0.00	13.32	252.84	109.26	4.13	0.00	0.00	0.00
35 Wahkiakum	62.08	62.08	0.00	0.00	17.12	39.66	5.30	0.00	0.00	0.00
36 Walla Walla	397.59	397.59	0.00	1.89	103.47	261.00	31.23	0.00	0.00	0.00
37 Whatcom	199.39	199.39	0.00	6.36	166.30	26.73	0.00	0.00	0.00	0.00
38 Whitman	494.58	494.58	0.00	0.00	204.80	201.07	88.71	0.00	0.00	0.00
39 Yakima	674.54	674.54	0.00	7.43	380.33	230.98	55.80	0.00	0.00	0.00
Total Miles	12,950.19	12,878.82	16.61	186.31	5,525.69	4,526.86	2,623.35	62.30	9.07	0.00

COUNTY ROAD LOG

1/1/2019

Centerline Miles of Road

COUNTY DATA COLLECTION AND ANALYSIS

Counties conduct traffic counts on a portion of their road system annually. They annually conduct volume and classification studies on many roads that are existing and/or potential truck routes. To provide the best information possible, some counties work with trucking concerns (haulers, grain co-ops, and industry representatives) to develop tonnage data.

The field data obtained provides the number of truck-by-truck classifications. The methodology developed by WSDOT, described in "Instructions for FGTS Truck Tonnage Estimation", is used to convert this information to Gross Annual Tons. The WSDOT methodology was used so that the designation of Truck Route Classes would be consistent between the state and the counties.

Each County submits an annual Road Log Update to CRAB that includes all changes made to its road system during the year. The Road Log contains road and usage information for all identified CFGS routes. CRAB extracts the information for each CFGS route. This information provides an inventory of the CFGS routes, and a deficiency elimination evaluation and maintenance needs evaluation for each counties system. This is the basis for the CFGS Annual Status Report.

DEFICIENCY ELIMINATION EVALUATION

Roads

One of the tasks of the 1993 Cost Responsibility Study (CRS) was to define a set of "Minimum Tolerable Conditions" (MTC) that a FGTS route must meet to be deemed 'adequate'. The MTCs were established for Roadway Width and Structural Adequacy.

1. Roadway width is a measure of the safety and ease of operation of trucks. A narrower roadway provides operational impediments to safe and efficient operation of trucks. Pavement width and shoulder width are required fields in the road log, and are annually certified correct by the County Engineer.
2. Structural Adequacy is the ability of the pavement and base to adequately support the number of heavy loads on the road. Weeks of weight restriction (how many weeks in a typical average year the road is restricted to lighter loads) and base adequacy (an evaluation of the adequacy of the road base to support the volume of heavy trucks using the road) are not required fields. The counties were encouraged to enter correct data in these fields. However, due to data and staff limitations, some information may not be current.

A scenario approach was adopted by the CRS to produce estimates of needs under alternative sets of minimum tolerable conditions. This provides policy makers with a range of options and information on how the needs vary depending on the MTCs selected. Scenario 1 is "all weight restrictions addressed", and assumes that all FGTS segments with weight restrictions will be upgraded to all-season roads. Scenario 2 is "some weight

restrictions addressed", and assumes that minimal weight restrictions would be allowed in the lower truck route classes (T-3 thru T-5). Scenario 3 is "most severe weight restrictions addressed", and assumes moderate weight restrictions will be allowed in all truck route classes.

Deficiencies are determined by comparing the data in the Road Log with the Minimum Tolerable Condition, established in the CRS. The total miles of the several identified improvements are determined, and cost factors used to determine the funding needed to remove the deficiencies.

The costs for improvements to ensure that minimum tolerable conditions exist were originally determined in the Road Jurisdiction Study (1988), reviewed and updated for the Cost Responsibility Study (1993), and adopted for use in the Needs Assessment Evaluation (1994). They represent standards of design and construction that existed at that time. These costs have been adjusted to 2019 dollars using WSDOT Planning and Programming Service Center, Economics Branch, implicit price deflators.

These cost estimates are conservative. The costs assume structural adequacy and adequate width. They do not include costs that are necessary for other safety improvements or upgrades to improve truck operational efficiencies, currently required environmental permitting, mitigation, fish passage, and project delays or other potential restrictions. The emphasis on environmental concerns has dramatically escalated since these cost factors were developed.

County Freight and Goods System Study
 Summary of Centerline Miles of Deficiencies
 CRS Scenario 1 - All Weather Roads

FREIGHT AND GOODS TRANSPORTATION SYSTEM

C/L Miles of Deficiency

	County Name	Total C/L Miles		Improve Gravel	Pave Unpaved	Minor Widening	Shoulder Improv.	Improve Base	Total Inadequate	% Adeq.
		FGTS	Adequate							
1	Adams	656.69	207.29	143.01	1.48	0.66	7.34	296.92	449.40	32%
2	Asotin	43.37	22.91	0.00	4.33	0.00	15.99	0.14	20.46	53%
3	Benton	401.33	133.33	39.23	3.99	2.90	35.63	186.25	268.00	33%
4	Chelan	182.07	41.89	0.00	0.28	0.43	22.71	116.77	140.18	23%
5	Clallam	145.59	0.15	0.00	0.00	0.00	3.60	141.84	145.44	0%
6	Clark	374.53	190.05	0.00	0.00	31.00	153.48	0.00	184.48	51%
7	Columbia	206.14	5.09	64.68	10.96	0.00	6.11	119.31	201.06	2%
8	Cowlitz	137.84	77.59	0.00	0.00	6.70	53.55	0.00	60.25	56%
9	Douglas	263.62	14.51	35.47	1.57	0.00	3.04	209.03	249.11	6%
10	Ferry	224.96	12.70	31.73	21.66	0.00	2.20	156.67	212.26	6%
11	Franklin	517.95	190.56	57.49	3.96	0.00	1.78	264.16	327.39	37%
12	Garfield	135.88	60.75	8.57	3.93	0.29	62.10	0.24	75.13	45%
13	Grant	843.23	15.38	44.09	0.00	0.02	27.46	756.29	827.86	2%
14	Grays Harbor	218.03	186.96	1.55	0.00	18.17	11.35	0.00	31.07	86%
15	Island	75.54	63.07	0.00	0.00	0.00	12.47	0.00	12.47	83%
16	Jefferson	138.40	106.53	4.20	0.00	4.58	0.31	22.78	31.87	77%
17	King	402.81	300.75	0.00	6.89	3.01	92.16	0.00	102.06	75%
18	Kitsap	323.01	250.41	0.00	0.09	5.60	62.32	4.59	72.60	78%
19	Kittitas	330.50	156.97	0.08	0.00	10.54	162.91	0.00	173.53	47%
20	Klickitat	437.06	92.82	14.60	0.00	7.73	47.66	274.25	344.24	21%
21	Lewis	490.96	157.59	6.85	0.00	4.02	112.78	209.71	333.36	32%
22	Lincoln	802.37	92.70	333.80	1.06	4.09	165.74	204.98	709.67	12%
23	Mason	190.44	51.00	0.00	0.01	1.89	10.42	127.12	139.44	27%
24	Okanogan	399.51	9.96	71.13	0.00	0.00	0.00	318.43	389.56	2%
25	Pacific	136.49	41.18	12.99	0.00	1.59	0.78	79.95	95.31	30%
26	Pend Oreille	226.00	12.90	10.82	0.00	0.00	0.00	202.28	213.10	6%
27	Pierce	411.98	347.80	0.00	0.00	13.21	50.97	0.00	64.18	84%
28	San Juan	88.03	31.65	0.00	0.00	0.89	55.49	0.00	56.38	36%
29	Skagit	240.40	111.27	0.00	0.00	1.56	1.42	126.15	129.12	46%
30	Skamania	81.20	67.99	0.29	0.00	0.00	12.92	0.00	13.21	84%
31	Snohomish	508.43	283.62	0.00	0.00	57.78	167.03	0.00	224.81	56%
32	Spokane	701.45	307.60	41.88	9.37	23.79	144.77	174.05	393.85	44%
33	Stevens	335.29	10.93	1.62	0.00	0.00	8.95	313.79	324.36	3%
34	Thurston	379.56	27.35	2.76	0.00	0.00	0.86	348.59	352.21	7%
35	Wahkiakum	62.08	29.99	0.00	0.33	2.89	28.86	0.00	32.08	48%
36	Walla Walla	397.59	37.55	22.81	0.10	6.39	1.65	329.10	360.04	9%
37	Whatcom	199.39	69.59	0.11	0.00	0.00	0.81	128.88	129.80	35%
38	Whitman	494.58	134.08	74.55	4.00	0.00	45.12	236.84	360.51	27%
39	Yakima	674.54	615.21	28.14	5.99	13.37	11.83	0.00	59.33	91%
	Total	12,878.82	4,569.65	1,052.43	80.00	223.09	1,604.55	5,349.10	8,309.17	35%

COUNTY ROAD LOG 1/1/2019

Centerline Miles of Road

County Freight and Goods System Study
 Summary of Costs to Eliminate Deficiencies
 CRS Scenario 1 - All Weather Roads

FREIGHT AND GOODS TRANSPORTATION SYSTEM

	County Name	Total C/L Miles		Cost to Improve Deficiency					Total Cost
		FGTS	Adequate	Improve Gravel	Pave Unpaved	Minor Widening	Shoulder Improv.	Improve Base	
1	Adams	656.69	207.29	76,009	692	207	1,929	163,350	242,187
2	Asotin	43.37	22.91	0	2,836	0	5,829	120	8,784
3	Benton	401.33	133.33	22,548	2,593	684	9,733	107,610	143,168
4	Chelan	182.07	41.89	0	182	128	5,902	67,905	74,117
5	Clallam	145.59	0.15	0	0	0	998	76,959	77,956
6	Clark	374.53	190.05	0	0	11,565	56,684	0	68,249
7	Columbia	206.14	5.09	37,072	7,178	0	1,625	67,035	112,910
8	Cowlitz	137.84	77.59	0	0	2,002	13,990	0	15,993
9	Douglas	263.62	14.51	19,630	1,021	0	1,307	122,451	144,409
10	Ferry	224.96	12.70	15,714	14,081	0	532	88,287	118,614
11	Franklin	517.95	190.56	28,055	1,857	0	563	147,343	177,818
12	Garfield	135.88	60.75	5,236	2,574	93	16,423	136	24,463
13	Grant	843.23	15.38	21,876	0	4	9,430	408,228	439,538
14	Grays Harbor	218.03	186.96	756	0	4,736	2,983	0	8,475
15	Island	75.54	63.07	0	0	0	3,939	0	3,939
16	Jefferson	138.40	106.53	2,051	0	849	82	12,059	15,042
17	King	402.81	300.75	0	3,233	1,270	33,988	0	38,491
18	Kitsap	323.01	250.41	0	71	1,827	24,137	4,175	30,210
19	Kittitas	330.50	156.97	39	0	2,503	40,294	0	42,836
20	Klickitat	437.06	92.82	7,125	0	1,577	11,695	152,170	172,566
21	Lewis	490.96	157.59	3,591	0	704	29,581	101,574	135,451
22	Lincoln	802.37	92.70	179,124	689	716	45,067	115,229	340,825
23	Mason	190.44	51.00	0	6	335	2,643	73,287	76,270
24	Okanogan	399.51	9.96	40,059	0	0	0	174,257	214,317
25	Pacific	136.49	41.18	7,420	0	278	191	40,771	48,660
26	Pend Oreille	226.00	12.90	6,393	0	0	0	107,313	113,706
27	Pierce	411.98	347.80	0	0	5,096	24,181	0	29,277
28	San Juan	88.03	31.65	0	0	238	14,211	0	14,449
29	Skagit	240.40	111.27	0	0	770	537	75,998	77,305
30	Skamania	81.20	67.99	142	0	0	3,509	0	3,650
31	Snohomish	508.43	283.62	0	0	24,271	54,327	0	78,598
32	Spokane	701.45	307.60	22,456	5,736	8,036	42,750	106,892	185,870
33	Stevens	335.29	10.93	938	0	0	2,380	176,221	179,540
34	Thurston	379.56	27.35	1,347	0	0	510	235,718	237,575
35	Wahkiakum	62.08	29.99	0	215	592	7,601	0	8,408
36	Walla Walla	397.59	37.55	12,480	67	1,684	536	194,653	209,420
37	Whatcom	199.39	69.59	54	0	0	351	76,663	77,068
38	Whitman	494.58	134.08	40,829	1,876	0	11,507	133,415	187,627
39	Yakima	674.54	615.21	14,883	3,171	4,777	4,997	0	27,829
	Total	12,878.82	4,569.65	565,829	48,077	74,943	486,943	3,029,819	4,205,611

COUNTY ROAD LOG

All Costs in \$1,000's

County Freight and Goods System Study
 Summary of Centerline Miles of Deficiencies
 CRS Scenario 2 - Minimal Road

FREIGHT AND GOODS TRANSPORTATION SYSTEM

County Name	Total C/L Miles		C/L Miles of Deficiency							Total Inadequate	% Adeq.
	FGTS	Adequate	Improve	Pave	Minor	Shoulder	Improve				
			Gravel	Unpaved	Widening	Improv.	Base				
1 Adams	656.69	207.29	143.01	1.48	0.66	7.34	296.92	449.40	32%		
2 Asotin	43.37	22.91	0.00	4.33	0.00	15.99	0.14	20.46	53%		
3 Benton	401.33	139.11	39.23	3.99	2.90	35.63	180.47	262.22	35%		
4 Chelan	182.07	55.24	0.00	0.28	1.98	28.93	95.65	126.83	30%		
5 Clallam	145.59	65.01	0.00	0.00	8.32	47.23	25.03	80.58	45%		
6 Clark	374.53	190.05	0.00	0.00	31.00	153.48	0.00	184.48	51%		
7 Columbia	206.14	35.52	64.68	10.96	0.00	7.34	87.65	170.63	17%		
8 Cowlitz	137.84	77.59	0.00	0.00	6.70	53.55	0.00	60.25	56%		
9 Douglas	263.62	135.50	35.47	1.57	0.00	19.26	71.82	128.12	51%		
10 Ferry	224.96	12.70	31.73	21.66	0.00	2.20	156.67	212.26	6%		
11 Franklin	517.95	271.51	57.49	3.96	5.43	4.96	174.60	246.44	52%		
12 Garfield	135.88	60.75	8.57	3.93	0.29	62.34	0.00	75.13	45%		
13 Grant	843.23	23.31	44.09	0.00	0.02	73.22	702.60	819.93	3%		
14 Grays Harbor	218.03	186.96	1.55	0.00	18.17	11.35	0.00	31.07	86%		
15 Island	75.54	63.07	0.00	0.00	0.00	12.47	0.00	12.47	83%		
16 Jefferson	138.40	118.23	4.20	0.00	6.07	0.92	8.97	20.16	85%		
17 King	402.81	300.75	0.00	6.89	3.01	92.16	0.00	102.06	75%		
18 Kitsap	323.01	254.96	0.00	0.09	5.60	62.36	0.00	68.05	79%		
19 Kittitas	330.50	156.97	0.08	0.00	10.54	162.91	0.00	173.53	47%		
20 Klickitat	437.06	101.59	14.60	0.00	7.73	97.71	215.43	335.47	23%		
21 Lewis	490.96	275.49	6.85	0.00	10.58	172.14	25.90	215.47	56%		
22 Lincoln	802.37	92.70	333.80	1.06	4.09	167.83	202.89	709.67	12%		
23 Mason	190.44	54.02	0.00	0.01	1.89	10.42	124.10	136.42	28%		
24 Okanogan	399.51	74.28	71.13	0.00	0.22	0.00	253.89	325.24	19%		
25 Pacific	136.49	44.94	12.99	0.00	1.59	3.95	73.02	91.55	33%		
26 Pend Oreille	226.00	12.90	10.82	0.00	0.00	0.00	202.28	213.10	6%		
27 Pierce	411.98	347.80	0.00	0.00	13.21	50.97	0.00	64.18	84%		
28 San Juan	88.03	31.65	0.00	0.00	0.89	55.49	0.00	56.38	36%		
29 Skagit	240.40	123.17	0.00	0.00	1.56	1.42	114.25	117.22	51%		
30 Skamania	81.20	67.99	0.29	0.00	0.00	12.92	0.00	13.21	84%		
31 Snohomish	508.43	283.62	0.00	0.00	57.78	167.03	0.00	224.81	56%		
32 Spokane	701.45	444.84	41.88	9.37	37.91	162.22	5.24	256.62	63%		
33 Stevens	335.29	50.03	1.62	0.00	0.00	45.30	238.34	285.26	15%		
34 Thurston	379.56	31.47	2.76	0.00	0.00	0.86	344.47	348.09	8%		
35 Wahkiakum	62.08	29.99	0.00	0.33	2.89	28.86	0.00	32.08	48%		
36 Walla Walla	397.59	68.05	22.81	0.10	6.71	1.69	298.23	329.54	17%		
37 Whatcom	199.39	69.59	0.11	0.00	0.00	0.81	128.88	129.80	35%		
38 Whitman	494.58	134.08	74.55	4.00	0.00	45.12	236.84	360.51	27%		
39 Yakima	674.54	615.21	28.14	5.99	13.37	11.83	0.00	59.33	91%		
Total	12,878.82	5,330.81	1,052.43	80.00	261.11	1,890.19	4,264.28	7,548.00	41%		

County Freight and Goods System Study
 Summary of Costs to Eliminate Deficiencies
 CRS Scenario 2 - Minimal Road

FREIGHT AND GOODS TRANSPORTATION SYSTEM

County Name	Total C/L Miles		Cost to Improve Deficiency						Total Cost
	FGTS	Adequate	Improve	Pave	Minor	Shoulder	Improve		
			Gravel	Unpaved	Widening	Improv.	Base		
1 Adams	656.69	207.29	76,009	692	207	1,929	163,350	242,187	
2 Asotin	43.37	22.91	0	2,836	0	5,829	120	8,784	
3 Benton	401.33	139.11	22,548	2,593	684	9,733	104,421	139,978	
4 Chelan	182.07	55.24	0	182	460	7,624	56,342	64,609	
5 Clallam	145.59	65.01	0	0	1,767	13,187	14,127	29,081	
6 Clark	374.53	190.05	0	0	11,565	56,684	0	68,249	
7 Columbia	206.14	35.52	37,072	7,178	0	1,934	49,285	95,469	
8 Cowlitz	137.84	77.59	0	0	2,002	13,990	0	15,993	
9 Douglas	263.62	135.50	19,630	1,021	0	5,298	45,352	71,301	
10 Ferry	224.96	12.70	15,714	14,081	0	532	88,287	118,614	
11 Franklin	517.95	271.51	28,055	1,857	1,682	1,355	97,920	130,870	
12 Garfield	135.88	60.75	5,236	2,574	93	16,487	0	24,391	
13 Grant	843.23	23.31	21,876	0	4	21,074	378,483	421,437	
14 Grays Harbor	218.03	186.96	756	0	4,736	2,983	0	8,475	
15 Island	75.54	63.07	0	0	0	3,939	0	3,939	
16 Jefferson	138.40	118.23	2,051	0	1,269	230	5,077	8,627	
17 King	402.81	300.75	0	3,233	1,270	33,988	0	38,491	
18 Kitsap	323.01	254.96	0	71	1,827	24,157	0	26,055	
19 Kittitas	330.50	156.97	39	0	2,503	40,294	0	42,836	
20 Klickitat	437.06	101.59	7,125	0	1,577	24,806	119,213	152,721	
21 Lewis	490.96	275.49	3,591	0	1,957	44,577	15,587	65,712	
22 Lincoln	802.37	92.70	179,124	689	716	45,573	114,067	340,169	
23 Mason	190.44	54.02	0	6	335	2,643	71,579	74,563	
24 Okanogan	399.51	74.28	40,059	0	39	0	140,947	181,045	
25 Pacific	136.49	44.94	7,420	0	278	1,017	37,195	45,911	
26 Pend Oreille	226.00	12.90	6,393	0	0	0	107,313	113,706	
27 Pierce	411.98	347.80	0	0	5,096	24,181	0	29,277	
28 San Juan	88.03	31.65	0	0	238	14,211	0	14,449	
29 Skagit	240.40	123.17	0	0	770	537	69,262	70,569	
30 Skamania	81.20	67.99	142	0	0	3,509	0	3,650	
31 Snohomish	508.43	283.62	0	0	24,271	54,327	0	78,598	
32 Spokane	701.45	444.84	22,456	5,736	12,714	47,724	5,657	94,286	
33 Stevens	335.29	50.03	938	0	0	12,048	134,298	147,284	
34 Thurston	379.56	31.47	1,347	0	0	510	232,658	234,515	
35 Wahkiakum	62.08	29.99	0	215	592	7,601	0	8,408	
36 Walla Walla	397.59	68.05	12,480	67	1,782	555	173,795	188,678	
37 Whatcom	199.39	69.59	54	0	0	351	76,663	77,068	
38 Whitman	494.58	134.08	40,829	1,876	0	11,507	133,415	187,627	
39 Yakima	674.54	615.21	14,883	3,171	4,777	4,997	0	27,829	
Total	12,878.82	5,330.81	565,829	48,077	85,210	561,922	2,434,414	3,695,452	

COUNTY ROAD LOG

All Costs in \$1,000's

County Freight and Goods System Study
 Summary of Centerline Miles of Deficiencies
 CRS Scenario 3 - Moderate Road

FREIGHT AND GOODS TRANSPORTATION SYSTEM

County Name	Total C/L Miles		C/L Miles of Deficiency						Total Inadequate	% Adeq.
	FGTS	Adequate	Improve Gravel	Pave Unpaved	Minor Widening	Shoulder Improv.	Improve Base			
	1	Adams	656.69	207.39	143.01	1.48	0.66	7.34		
2	Asotin	43.37	22.91	0.00	4.33	0.00	15.99	0.14	20.458	53%
3	Benton	401.33	141.56	39.23	3.99	2.90	43.34	170.32	259.770	35%
4	Chelan	182.07	76.98	0.00	0.28	2.83	42.25	59.74	105.090	42%
5	Clallam	145.59	75.43	0.00	0.00	8.32	61.84	0.00	70.160	52%
6	Clark	374.53	190.05	0.00	0.00	31.00	153.48	0.00	184.480	51%
7	Columbia	206.14	35.52	64.68	10.96	0.00	7.34	87.65	170.627	17%
8	Cowlitz	137.84	77.59	0.00	0.00	6.70	53.55	0.00	60.250	56%
9	Douglas	263.62	179.11	35.47	1.57	0.00	43.62	3.85	84.510	68%
10	Ferry	224.96	12.70	31.73	21.66	0.00	2.20	156.67	212.260	6%
11	Franklin	517.95	352.97	57.49	3.96	5.43	26.94	71.16	164.980	68%
12	Garfield	135.88	60.75	8.57	3.93	0.29	62.34	0.00	75.127	45%
13	Grant	843.23	24.14	44.09	0.00	0.02	140.63	634.36	819.096	3%
14	Grays Harbor	218.03	186.96	1.55	0.00	18.17	11.35	0.00	31.070	86%
15	Island	75.54	63.07	0.00	0.00	0.00	12.47	0.00	12.467	83%
16	Jefferson	138.40	118.23	4.20	0.00	6.07	0.92	8.97	20.163	85%
17	King	402.81	300.75	0.00	6.89	3.01	92.16	0.00	102.063	75%
18	Kitsap	323.01	254.96	0.00	0.09	5.60	62.36	0.00	68.050	79%
19	Kittitas	330.50	156.97	0.08	0.00	10.54	162.91	0.00	173.531	47%
20	Klickitat	437.06	133.00	14.60	0.00	11.80	195.18	82.48	304.060	30%
21	Lewis	490.96	291.21	6.85	0.00	10.58	182.32	0.00	199.750	59%
22	Lincoln	802.37	100.15	333.80	1.06	4.09	222.60	140.68	702.224	12%
23	Mason	190.44	62.99	0.00	0.01	1.89	10.49	115.06	127.448	33%
24	Okanogan	399.51	87.53	71.13	0.00	0.22	0.00	240.63	311.979	22%
25	Pacific	136.49	44.94	12.99	0.00	1.59	3.95	73.02	91.545	33%
26	Pend Oreille	226.00	63.85	10.82	0.00	0.00	0.90	150.44	162.150	28%
27	Pierce	411.98	347.80	0.00	0.00	13.21	50.97	0.00	64.180	84%
28	San Juan	88.03	31.65	0.00	0.00	0.89	55.49	0.00	56.382	36%
29	Skagit	240.40	123.59	0.00	0.00	1.56	1.42	113.83	116.804	51%
30	Skamania	81.20	67.99	0.29	0.00	0.00	12.92	0.00	13.205	84%
31	Snohomish	508.43	283.62	0.00	0.00	57.78	167.03	0.00	224.812	56%
32	Spokane	701.45	447.61	41.88	9.37	38.67	163.92	0.00	253.839	64%
33	Stevens	335.29	148.56	1.62	0.00	0.00	105.84	79.27	186.730	44%
34	Thurston	379.56	32.26	2.76	0.00	0.00	0.86	343.68	347.296	8%
35	Wahkiakum	62.08	29.99	0.00	0.33	2.89	28.86	0.00	32.084	48%
36	Walla Walla	397.59	86.49	22.81	0.10	6.88	1.80	279.51	311.100	22%
37	Whatcom	199.39	69.59	0.11	0.00	0.00	0.81	128.88	129.800	35%
38	Whitman	494.58	134.08	74.55	4.00	0.00	45.12	236.84	360.505	27%
39	Yakima	674.54	615.21	28.14	5.99	13.37	11.83	0.00	59.330	91%
Total		12,878.82	5,740.14	1,052.43	80.00	266.96	2,265.31	3,473.98	296.816	45%

COUNTY ROAD LOG 1/1/2019

Centerline Miles of Road

County Freight and Goods System Study
 Summary of Costs to Eliminate Deficiencies
 CRS Scenario 3 - Moderate Road

FREIGHT AND GOODS TRANSPORTATION SYSTEM

Cost to Improve Deficiency

	County Name	Total C/L Miles		Improve Gravel	Pave Unpaved	Minor Widening	Shoulder Improv.	Improve Base	Total Cost
		FGTS	Adequate						
1	Adams	656.69	207.39	76,009	692	207	1,929	163,292	242,129
2	Asotin	43.37	22.91	0	2,836	0	5,829	120	8,784
3	Benton	401.33	141.56	22,548	2,593	684	11,704	98,706	136,235
4	Chelan	182.07	76.98	0	182	609	11,043	36,725	48,559
5	Clallam	145.59	75.43	0	0	1,767	16,978	0	18,745
6	Clark	374.53	190.05	0	0	11,565	56,684	0	68,249
7	Columbia	206.14	35.52	37,072	7,178	0	1,934	49,285	95,469
8	Cowlitz	137.84	77.59	0	0	2,002	13,990	0	15,993
9	Douglas	263.62	179.11	19,630	1,021	0	12,157	4,017	36,825
10	Ferry	224.96	12.70	15,714	14,081	0	532	88,287	118,614
11	Franklin	517.95	352.97	28,055	1,857	1,682	6,763	40,156	78,513
12	Garfield	135.88	60.75	5,236	2,574	93	16,487	0	24,391
13	Grant	843.23	24.14	21,876	0	4	38,430	340,103	400,412
14	Grays Harbor	218.03	186.96	756	0	4,736	2,983	0	8,475
15	Island	75.54	63.07	0	0	0	3,939	0	3,939
16	Jefferson	138.40	118.23	2,051	0	1,269	230	5,077	8,627
17	King	402.81	300.75	0	3,233	1,270	33,988	0	38,491
18	Kitsap	323.01	254.96	0	71	1,827	24,157	0	26,055
19	Kittitas	330.50	156.97	39	0	2,503	40,294	0	42,836
20	Klickitat	437.06	133.00	7,125	0	2,887	50,042	46,542	106,596
21	Lewis	490.96	291.21	3,591	0	1,957	47,484	0	53,032
22	Lincoln	802.37	100.15	179,124	689	716	59,914	79,224	319,667
23	Mason	190.44	62.99	0	6	335	2,661	66,285	69,288
24	Okanogan	399.51	87.53	40,059	0	39	0	133,937	174,035
25	Pacific	136.49	44.94	7,420	0	278	1,017	37,195	45,911
26	Pend Oreille	226.00	63.85	6,393	0	0	217	82,649	89,259
27	Pierce	411.98	347.80	0	0	5,096	24,181	0	29,277
28	San Juan	88.03	31.65	0	0	238	14,211	0	14,449
29	Skagit	240.40	123.59	0	0	770	537	68,950	70,257
30	Skamania	81.20	67.99	142	0	0	3,509	0	3,650
31	Snohomish	508.43	283.62	0	0	24,271	54,327	0	78,598
32	Spokane	701.45	447.61	22,456	5,736	13,065	48,691	0	89,947
33	Stevens	335.29	148.56	938	0	0	27,864	44,700	73,502
34	Thurston	379.56	32.26	1,347	0	0	510	231,730	233,587
35	Wahkiakum	62.08	29.99	0	215	592	7,601	0	8,408
36	Walla Walla	397.59	86.49	12,480	67	1,859	585	161,624	176,615
37	Whatcom	199.39	69.59	54	0	0	351	76,663	77,068
38	Whitman	494.58	134.08	40,829	1,876	0	11,507	133,415	187,627
39	Yakima	674.54	615.21	14,883	3,171	4,777	4,997	0	27,829
	Total	12,878.82	5,740.14	565,829	48,077	87,098	660,256	1,988,684	3,349,944

COUNTY ROAD LOG 1/1/2019

All Costs in \$1,000's

Bridges

Bridge restrictions are a major impediment to truck traffic. Removing bridge restrictions can provide (1) alternate truck routes that save time and/or distance and (2) truck routes that can carry both legal and oversized/overweight permitted loads. Both result in more efficient truck travel.

Bridges are also evaluated by scenario. In Scenario 1 all bridge deficiencies will be removed (load postings, narrow widths, and vertical clearance problems). In Scenario 2, load limit and vertical clearance deficiencies will be removed. In Scenario 3, only load limit deficiencies will be removed.

The current WSDOT bridge inventory system provides counties with an automated inspection form. Each county inspects its bridges on a regular basis and submits the data to WSDOT. Analysis and data management functions are performed by WSDOT.

Railroad Crossings

Railroad crossing deficiencies can impede truck traffic in several ways:

1. Steep approach grades to the crossing;
2. Sight distance restrictions;
3. Narrow and/or height restricted under crossings that constrict the free flow of traffic;
4. Lack of warning lights, gates, and other safety devices.

Washington Utilities and Transportation Commission (WUTC) and WSDOT cooperate to improve railroad crossings on a priority basis. CRAB does not have the ability to segregate the railroad crossings on the CFGS to develop an inventory, deficiency listing or a needs analysis.

MAINTENANCE NEEDS EVALUATION

The Road Jurisdiction Study included an evaluation of annual maintenance needs. It identified a reasonable standard for road maintenance for a typical local agency and determined costs required to achieve that standard. The Cost Responsibility Study used those standards and costs to determine annual maintenance needs for the FGTS. For the Needs Assessment Study, CRAB used the RJS and CRS standards and costs to develop a maintenance needs assessment routine applicable to county roads.

This evaluation was used (with costs updated to reflect 2019 costs) to determine the estimated annual maintenance needs on the County Freight and Goods system. It must be noted that these costs are estimates of the total statewide annual maintenance needs for counties, based on the criteria established by the RJS and CRS.

STRATEGIC FREIGHT CORRIDORS

RCW 47.06A.010 (6) defines Strategic Freight Corridors as:

"... a transportation corridor of great economic importance within an integrated freight system that:

- (a) Serves international and domestic interstate and intrastate trade;
- (b) Enhances the state's competitive position through regional and global gateways;
- (c) Carries freight tonnages of at least:
 - (i) Four million gross tons annually on state highways, city streets, and county roads;
 - (ii) Five million gross tons annually on railroads; or
 - (iii) Two and one-half million net tons on waterways; and
- (d) Has been designated a strategic corridor by the FMSIB under RCW 47.06A.020 (3). However, new alignments to, realignments of, and new links to strategic corridors that enhance freight movement may qualify, even though no tonnage data exists for facilities to be built in the future."

Two hundred and three (203) miles of county roads, in 16 counties, have been classified as Strategic Freight Corridors. These are the routes that are classified Truck Route Class T-1 or T-2.

Strategic Freight Corridors are eligible for Freight Mobility Strategic Investment Board (FMSIB) funding. However, the FMSIB funding rating method is based on reduction of congestion, measured by delay. A review of the "Freight Mobility Strategic Investment Board – 2018 Annual Report" indicates that their current priorities are improvements at railroad crossings, which reduce congestion and delay of both trucks and trains.

Special thanks to Adams, Chelan, Clallam, Columbia, Douglas, Jefferson, Skamania, Snohomish, and Yakima Counties for their contributions to this report.