

Skagit County Public Works

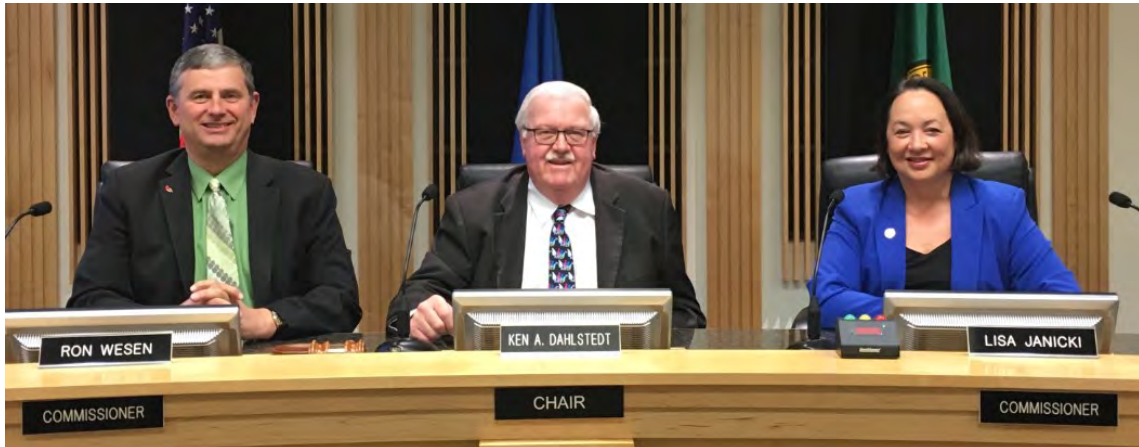


Annual Report 2018





Board of Skagit County Commissioners



Ron Wesen
District 1

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District 2

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District 3

Skagit County Public Works

April, 2019

Skagit County Administrative Building
1800 Continental Place
Mount Vernon, WA 98273

Designed and Prepared by Jim Mickel

Front cover photos:
Illabot Creek Restoration 2018

Skagit County Public Works Annual Report 2018

Dan Berentson, Director of Public Works



Getting things done!

We had some great accomplishments in 2018. We opened the Burlington Northern Overpass on Old 99 North of Burlington, an \$18 million project under budget. We built two bridges over Illabot Creek for the Skagit River Systems Cooperative for one of the most significant salmon restoration projects in the State of Washington and received a Project of the Year award from the American Public Works Association. We completed a significant street improvement on Lafayette Road in Burlington to provide better access to farm worker housing.

When the Town of Lyman was in trouble, we built an emergency road to help landlocked citizens after a slide. We then worked with the town and the Corps to provide protection from river erosion, utilizing our staff skills to facilitate buyouts of three homes falling into the river, providing families with needed resources to find new homes. Then we demolished the homes.

We worked with our city and town partners on solid waste with a new rate study to assure dependable and affordable service to all.

The Guemes Island Ferry Replacement Project was awarded \$7.5 million by the County Road Administration Board as we move to full design to build a new vessel.

In the Natural Resources arena we continue to improve water quality in Padilla and Samish Bays. We also work closely with drainage districts on regional problems and continue to improve habitat through restoration with our community partners. Our Farmland Legacy Program has now protected more than 12,000 acres of the most fertile farmland in the world. Our Noxious Weeds program is ridding our county of Knotweed and Spartina as well as many other invasive species.

With more than 800 miles of roads and 109 bridges, 113,000 tons of solid waste to dispose of, 360 vehicles to maintain, drainage and water quality issues, are just a few of the challenges.

In the last several years, we have gotten leaner and more efficient. We're working hard to make sure the services we provide make your quality of life better and more efficient.

Some people think that local government's don't get along. That's not true in Skagit County Public Works. We have more than 60 inter local agreements with neighboring jurisdictions from Skagit PUD, to the tribes, to dike and drainage districts. We share resources and expertise on a daily basis to give you're the best value possible for your hard-earned tax dollars.

We're proud of our professional staff and the talent and knowledge they bring to the job every day. The status quo is never acceptable in Skagit County Public Works. Let us know how we can do a better job to serve you.

A handwritten signature in blue ink that reads "Dan Berentson".

Dan Berentson

Director of Public Works

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Skagit County Public Works Department

Annual Report and Guide to Activities by Fund

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Solid Waste 401	11,480,750	10,430,273	25
ER&R 501	5,993,495	6,539,329	29
Clean Water 120	1,829,324	1,796,965	35
Drainage Utility 402	2,772,947	2,442,506	42
Farmland Legacy 122	1,017,472	224,993	47
Noxious Weeds 01-024	51,827	159,088	50
River Improvement 110	275,310	282,820	53
Lake Management District 141	61,000	48,325	54
Lake Management District 142	14,520	20,444	54
Lake Management District 143	28,519	38,658	54
Lake Management District 144	20,670	18,626	54
Total	54,265,973	49,963,260	
Public Works Active Grant Listing			55

Public Works Road Fund

Paul Randall-Grutter, P.E. County Engineer

The Road Fund has seven divisions responsible for the construction and maintenance of the County Road system.

- Division 3 Road Operations
- Division 4 Ferry Operations
- Division 5 Facilities
- Division 6 Administration
- Division 7 Development Review
- Division 8 Engineering
- Division 11 Transportation and Programs

Road Fund Revenue and Expenditures

Revenues	2018
Taxes/Assessments	14,500,848
Intergovernmental	12,761,123
Licenses and Permits	83,501
Charges for Services	3,169,772
Miscellaneous	189,587
Other	15,308
Total Revenue	30,720,139
Expenditures	2018
Salaries and Wages	5,405,741
Benefits	2,912,678
Supplies	3,163,156
Other Services and Charges	6,385,379
Intergovernmental Services	1,967,936
Capital Outlays	8,126,343
Total Expenditures	27,961,233
Net Increase/Decrease in Fund Balance	2,758,906

Statutory Use of Road Funds:

In developing a response to the question “can we expend County Road Funds on _____”, the following three principles must be applied:

1. Article II, Section 40 (18th amendment), of the state constitution restricts the use of motor vehicle fees and excise taxes (fuel tax) to only highway purposes.
2. The local Road Levy (property tax) is imposed only on properties in the unincorporated areas of the county, and must be used solely for the benefit of the unincorporated area.
3. The state grants authority to the county to exercise a governmental authority. A county may not create and implement any local code or take any action unless clearly permitted to do so by the state through RCW (including, but not limited to RCW 36.82.070).

Three additional factors that influence the application of the first three:

Comingled revenue sources in the Road Fund - RCW 36.82.010:

- “There is created in each county of the state a county fund to be known as the ‘county road fund.’ Any funds which accrue to any county for use upon county roads, shall be credited to and deposited in the county road fund”
- Comingled funds - Each individual revenue deposited in the Road Fund receives the aggregated legal protections of every other revenue deposited in the fund. Within the context of principle #3, there is extremely limited permission in statute to create accounts in order to separate Road Fund revenues for different purposes. Other than these very specific statutory permissions, the Road Fund is to be managed as a single financial resource.
- Access to and use of road related revenues are subject to ongoing compliance with all applicable laws, rules, and required procedures.

Other revenue sources, such as local option taxes, grants, and fees, all have unique rules, but they cannot be used in a way that would conflict with #1, #2, and #3.

RCW 36.80.010 - Employment of road engineer.

The county legislative authority of each county shall employ a county road engineer...

RCW 36.80.020 - Qualifications – Bond

He or she shall be a registered and licensed professional civil engineer under the laws of this state, duly qualified and experienced in highway and road engineering and construction. He or she shall serve at the pleasure of the board.

Before entering upon his or her employment, every county road engineer shall give an official bond to the county in such amount as the board shall determine, conditioned upon the fact that he or she will faithfully perform all the duties of his or her employment and account for all property of the county entrusted to his or her care. R20110143 waived that requirement.

RCW 36.75.020 - County Roads -- County legislative authority as agent of state

All of the county roads shall be established, laid out, constructed ... and maintained by the legislative authority ... Such work shall be ... under the supervision and direction of the county engineer.

Due to the scope and scale of departmental and statutory responsibilities, the position of County Engineer within Skagit County’s Public Works organizational structure oversees the following Divisions:

Engineering	Equipment
Ferry	Operations

Operations Division, Andy Shaw, Division Manager

Overview

The Road Operations Division maintains the roadway system and structures to the highest possible standards. In Skagit County there are over 800 miles of road and accompanying right of way. Currently the Operations Division has 55 employees and 56 activities to maintain road system.

There are three maintenance districts in Skagit County; each district has a supervisor and 11 crew members. Within each district there are cities, towns, and state routes which are maintained by their own governing agency.

In addition, the Special Operations crew does overhead tree trimming and maintains all signs, striping, guardrails and bridges. Special Operations also takes on many special projects such as, installing fences around county property, performing maintenance on county owned gravel pits and solid waste facilities, and helping with traffic control for special events such as the Tulip Festival and Big Lake Fire Works.

Service Requests

In 2018, during normal operating hours, County crews responded to 473 service requests. These requests typically are phone calls or emails from the public. Depending on the nature of the request, they are routed to the appropriate supervisor who responds to the request and oversees that the job gets done. Skagit County strives to provide an exceptional level of service to our customers.

After Hours-911 Emergency Response

Road Operation crews are on call 24 hours 7 days a week. After hours calls from 911 go directly to the on call supervisor's phone. Supervisors rotate weekends and evenings to be on call. Calls are frequently response to accidents, water over roadway, or other obstructions in the roadway such as trees or mud slides. Along with road repairs, sign crews are often dispatched to deploy emergency signs.

Road Operations Matrix of Activities

Chip Seal Program

Each year road maintenance crews chip seal approximately 90 miles of roads. The roads to be chip sealed are selected on a cycle from 7-10 years, depending on the condition of the roadway surface. Roads must be prepared properly before applying a seal coat, this includes removing sod and adding gravel to the shoulders, clearing brush, cleaning ditches, replacing culverts, and pre-leveling the road with asphalt and fog seal. The preparation work begins in March, but the actual chip seal starts typically in June or July when temperatures are right and rain is minimal. During the process, raised pavement markers are used to mark the centerline and the speed limit is reduced to 25 MPH. A liquid coat of asphalt is applied followed by a layer of rock chips that are rolled and left to cure for at least one week. After the road is cured it is swept and striped. A fog seal is added to help cure and keep rocks stabilized on roads that are not as heavily traveled.

Activity	Description	Amount	Unit	Cost
Bituminous Surface Treatment	Adding liquid asphalt and aggregate over roadway to improve the texture of and waterproof an asphalt surface, also known as “Chip Sealing”	90	Miles	\$1,914,253
Asphalt Leveling	Placing Asphalt cement or emulsion mix to level surface irregularities or failures. Normally done prior to seal coating or overlay. To achieve 100% of surface rating when complete	9,138	Tons	\$1,125,945
Pothole Patching	Repair edge breaks and pot holes on the roadway by filling them with premixed hot or cold asphalt. Generally potholes should be repaired as soon as possible. If traffic hazard exist, immediate attention is required.	284	Tons	\$153,795
Shoulder Graveling	Placing gravel or rock on shoulder to re-establish shoulder width, elevation and crown slope and to allow proper road drainage and prevent shoulder erosion	11,892	Tons	\$529,659
Fog Seal	To seal and enrich the asphalt pavement surface, seal minor cracks and asphalt patches on roads to be chip sealed in same year, to prevent raveling, delineate shoulders, and reduce chip loss on B.S.T.	53,362	Gallons	\$129,463

Road Operations Matrix of Activities

Snow and Ice Removal

During winter road maintenance crews sand and plow roads during freezing temperatures. Each road district has a list of priority areas that get plowed and sanded first. There are 17 snow plows with sanders in the fleet. Early in 2017 there was record breaking snow falls in the upper river areas. In the second part of 2017 snowfall was closer to normal. District supervisors get 2-3 weather reports a day from weather.net specifically forecasted for our region. This helps them predict ice and snowfall and have crews on call when needed.

Activity	Description	Amount	Unit	Cost
Plowing & Sanding	Remove snow and distribute sand and salt mixture on roadway when snow accumulates 2-3 "and frost conditions or compact snow occurs, with priority given to grades, intersections, curves, bridges and high volume roads	1.374	Man Hours	\$272,858

Vegetation Management

Effective management of vegetation along the road not only improves the aesthetics of an area but also improves safety. When vegetation is controlled, sight distance to signs, curves and intersections are improved, off road emergency parking is available, fire potential is reduced, and bicyclists and pedestrians have an area to use. Skagit County uses both herbicides and non-chemical methods of vegetation control.

Non-chemical methods

Mowing, brush cutting, weeding and tree trimming, sod removal are all methods of vegetation control Skagit County Road Maintenance crews use on our roads.

Activity	Description	Amount	Unit	Cost
Sod Removal	Removal of sod to prevent roadway surface damage due to improper drainage and to provide a safe and stable shoulder	176	Miles	\$191,644
Mowing	Mowing to maintain ungraded shoulders and intersections to a grass height below 12", 2-3 times during the season	2,498	Miles	\$294,754
Brush Cutting	Brush is trimmed to prevent brush onto roadway and to provide sight distance on curves and intersections	2,446	Miles	\$279,079
Tree Removal Manual	Tree removal work is be done from October to March on trees blocking site distance and signs	2,455	Man Hours	\$151,792
Tree Trimming	Work is performed to maintain a vertical clearance of 20' - 30' over the right-of-way and a horizontal clearance adequate to provide site distance	143	Miles	\$376,326

Road Operations Matrix of Activities

Herbicides

To make applications to the county right of way a license is required with the Washington State Department of Agriculture. A license is necessary so applicators know the laws and safety around using chemicals that minimize risk to humans and the environment.

Chemical control on shoulders helps prevent the buildup of sod and allows proper drainage of the road surface. It controls the growth of brush along the fence lines, guardrail, bridge approaches, sign and other areas where mowers cannot reach. In the spring and summer herbicide is applied in the county right of way, approximately 4 feet of road side shoulders and guardrail. In the fall, herbicides are used to control the blackberries.

The County uses a NORSTAR herbicide truck that carries 800 gallons of water and has three chemical tanks. The herbicide truck uses a computer to record the spray data that is downloaded to the server every night. By law, these records must be retained for seven years. The chemical rates are also controlled by a computer so there is not any over applications.

Activity	Description	Amount	Unit	Cost
Herbicides - Shoulders	Herbicides are applied annually to prevent vegetation on shoulders and to provide for shoulder drainage	534	Acres	\$69,981
Herbicides – Brush & Noxious Weeds	Applying herbicide to brush, weeds and grass encroaching the road and other areas mowers cannot reach	331	Acres	\$40,429

Signs and Pavement Markings

According to the manual for Traffic Control Devices for Streets and Highway Signs and Object Markers county signs must meet the standard requirement for shape, size and color, both day and night. Yearly our sign crews manage this requirement by doing a visual inspection of signs from a moving vehicle during nighttime conditions. Signs that are visually identified to have retroreflectively below the minimum level one of the following actions are taken: 1) Reflective failure replaced the sign, 2) Sign washed 3) Sign was missing and replaced 4) Brush trimmed around the sign. This year crews inspected all 12,347 signs and found 309 signs (less than 2.5%) that failed to meet standard.

Activity	Description	Amount	Unit	Cost
Sign Maintenance	Maintain and replace regulatory signs, signals and warning signs. Install new signs as requested by an engineering study or requested by traffic engineer	3,785	Signs	\$479,294
Striping Edge Line	Restore faded and worn edge line on existing and newly resurfaced roads	775	Miles	\$204,883
Striping Centerline	Restore faded and worn centerline on existing or newly resurfaced roads with two lanes at least 16' or more in width and speed limit of 35 MPH or greater	559	Miles	\$218,081
Pavement Markings	Work is normally done to mark or re-mark on pedestrian crossings, railroad crossings, directional arrows and stop bars, legends marked on road, school crossings, and raised pavement markers	26	Markings	\$29,498

Road Operations Matrix of Activities

Environmental Services

Environmental Services is a small crew created to work on off road right-of-way projects and those that contain “sensitive areas” such as within streams, wetlands, or other critical areas. They often assist other Public Works sections such as Surface Water Management and other departments such as the Parks Department. They also work with other agencies such as Washington Department of Fish and Wildlife (WDFW), and Tribal agencies, although there were no outside partnerships in 2018. In 2018 they worked on 3 Road Operations projects, 6 drainage utility projects, 3 Natural Resource Stewardship Program projects, 1 Parks Department Project, and 1 project that used FEMA and State Department of Military funding. They assisted the districts as needed, including fish removal and exclusion and water bypassing, ensured compliance with our membership in the Regional Roads Maintenance Program by tracking and removing Best Management Practices (BMPs), and obtained all road maintenance project and emergency permits. In addition, they work closely with the Natural Resource Division to assess and survey County culverts for fish passage status. This is a partnership with Skagit River Systems Cooperative, Upper Skagit Indian Tribe, and Skagit Fisheries Enhancement Group. This data is being collected and submitted to WDFW and County staff for mobility updates.

Other Maintenance

Throughout the year the roadway requires routine maintenance as needed. Here are some of those activity’s accomplishments for 2018:

Activity	Description	Amount	Units	Cost
Ditch Maintenance	Open ditch to keep water flowing and minimize road damage. Environmental laws prohibit ditch maintenance without a permit if there is water in the ditch	84,690	Feet	\$396,032
Culvert Install & Repair	Work is done to restore or improve roadway drainage. Normally done to enlarge existing culverts or catch basins, replace deteriorated pipes or to open up new drainage	1,956	Feet	\$229,217
Crack Sealing	Cleaning, filling, and sealing cracks in paved roadway surface to prevent passage of water into base of road	2,272	Pounds	\$21,895
Grading Roadway	Grading and shaping gravel roads to level ridges, cut and fill holes and distribute existing gravel evenly over the surface	94	Miles	\$47,574

Road Operations Matrix of Activities

Interlocal Agreements

Throughout the year road operations crews, upon request, will do work for our partnering local agencies. This year we did the following:

Agency	Description	Amount
Burlington Police Dept.	Disposal of Abandoned RV	\$1,380
Whatcom County	Striping approximately 4 miles	\$1,537
Port of Skagit	Clean catch basins	\$1,978
Skagit County Parks	Chip Seal Helmick Rd Parking Lot	\$24,972
City of Sedro Woolley	Chip Seal Hawthorne St	\$2,379
City of Sedro Woolley	Making miscellaneous signs	\$1,586
Sedro Woolley School Dist.	Parking lot repairs	\$24,165
San Juan County	162 miles of road striping	\$18,663
San Juan County	Cleaning catch basins	\$18,125
Skagit Transit	Clean catch basins	\$4,790
Skagit PUD	Spray grass & weeds	\$5,670
Total		\$105,245

Ferry Operations Division, Captain Rachel Rowe, Division Manager

The Guemes Island Ferry is owned and operated by Skagit County and provides an essential transportation link between Anacortes and Guemes Island. The current vessel was built in 1979, and put in service in 1980. The ferry crossing is approximately 5/8 mile with a round-trip taking between 20 and 25 minutes to complete.

A staff of 18 on-call/part-time, regular part-time and full time employees maintains, operates and provides dependable ferry service on the 21-car, 99-passenger M/V Guemes.

The M/V Guemes is 38 years old, and one of the challenges faced by the County today is the rising cost of maintaining a vessel of this age. Skagit County is currently seeking funding for the replacement of the current vessel.



Concept of New Ferry Vessel

Ferry Replacement Project

Skagit County has operated a vehicle and passenger ferry service between Anacortes and Guemes Island, WA since the early 1960s. The current vessel, the M/V GUEMES, is a 21-vehicle, 99-passenger, diesel-powered ferry that was built and put into service in 1979. Today, the ferry operates 365 days a year and transports roughly 200,000 vehicles and 400,000 passengers annually.

There are no alternative roads or highways that provide access to Guemes Island; as such, the Skagit County ferry system serves as a vital transportation link for its ridership. In addition to transporting commuters, the ferry also carries tourist traffic, construction and logging trucks, essential services trucks and emergency vehicles and personnel to and from the Island.

In the last few years, haul-out and dry dock costs have increased substantially. Since 2014, the Ferry Division has spent nearly half of its annual \$2.5 million operating budget on maintenance of the vessel and associated machinery and repair projects. This has become increasingly burdensome on Skagit County's road fund with the annual subsidy from that fund contributing approximately \$1 million per year in the last few years.

In 2013, Skagit County began the process of studying vessel replacement when they hired Elliott Bay Design Group to publish a Ferry Replacement Plan for the M/V GUEMES. The study looked at the existing cost of operation then formulated replacement scenarios to determine the most economic replacement option. The conclusion was that immediate or near-term replacement of the vessel will minimize the overall cost of ownership and provide environmental improvements in vessel operation.

Skagit County has determined a need to replace its diesel-powered vehicle and passenger ferry. If constructed, an all-electric vessel would potentially reduce operational and maintenance costs, increase energy independence and reduce harmful CO₂ (Carbon dioxide) air emissions by 619,359 kg. A propulsion/feasibility study, completed by Art Anderson Associates in 2016, concluded, that based on power requirements, "...an all-electric propulsion system for a new concept vessel to replace the M/V GUEMES is highly feasible for this particular route and its unique environmental conditions...It is recommended that all-electric propulsion be considered for the design of a replacement vessel that will provide safe and reliable service."

Currently, no state in the U.S. operates an all-electric vehicle ferry; however, the technology has been proven in Norway. Development of the all-electric ferry demonstrates that Skagit County and Washington State are technology leaders willing to invest in safe, environmentally conscious, clean energy projects that benefit both the local community and the global environment.

Grant Funding

In 2018, the County received preliminary approval of a Ferry Capital Improvement Program from the state. This funding is \$7,500,000. The County continues to seek additional funding in 2019.

Ferry Division Fund 117 Roads

Revenues	2018
Taxes/Assessments	-
Intergovernmental Revenue	390,074
Charges for Services	1,331,754
Miscellaneous	822
Other	
Total Revenue	1,722,650
Expenditures	2018
Salaries and Wages	790,420
Benefits	358,865
Supplies	287,637
Other Services and Charges	511,124
Intergovernmental Services	47,196
Total Expenditures	1,995,242
Net Increase/Decrease	(272,592)



M/V Guemes transiting Guemes Channel, Guemes Island in the background

Engineering Division, Keith Elefson P.E., Division Manager

The Engineering Division is budgeted for a staff of 17 full-time technical, administrative, and professional employees as well as one on-call field assistant who are all responsible for capital projects from initiation and funding through design, construction, contract administration, and close out as well as development review and survey. Due to attrition, 15 of the full-time positions are currently staffed. This Division is one of four within Public Works that works under the direction and supervision of the County Engineer.

The Engineering Division also houses the Transportation/Programs Section which is responsible for preliminary research, data compilation, preservation maintenance, and preliminary scoping of projects until established as a County Road Project, as well as the various grant programs, grant applications, programmatic functions, bridge inspections, and other items associated with transportation planning, and initial project planning and scoping. The Section is also responsible for preparation of County Road Administration Board (CRAB) and Washington State Department of Transportation (WSDOT) statutory and other reports, traffic investigations and studies, road database management and asset inventory, pavement management and traffic-count programs, bridge inspection program, service requests, over legal permits, traffic safety coordination, crash documentation, crash response/investigations, concurrency assessments, and in some instances is also responsible for right-of-way acquisition.

Projects often start when a citizen or County staff see a deficiency developing in the road or bridge, and report it to the Office of the County Engineer. At other times, our inspections reveal developing deficiencies, or we see a history of collisions in a certain area, concurrency assessments, priority array report, and the annual bridge report. Another way that a project may be identified is when a culvert fails or becomes a fish passage barrier, by either becoming perched or by being undersized.

Once a project is identified, appropriate Engineering staff will define (or scope) the project. During this time, we determine the extents of the project, and start to think about likely solutions to the problem. We also start thinking about potential funding sources. This is where we provide our initial estimate, and the preliminary budget is established. The project gets a County Road Project (CRP) number to authorize and track spending. The project may also be put on the County's 6-Year Transportation Improvement Program (6-Year TIP), dependent on its regional significance or funding source. If the project is to be designed or constructed in that year, it is added to the Annual Construction Program.

The next step is the initiation of actual design on the project. Some projects are designed entirely in-house, whereas consultants may be utilized for projects that require design in areas that we lack expertise (such as bridges or retaining walls), or when our staffing levels are insufficient to complete the work. There may also be times that we utilized consultants for portions of the work, but maintain the bulk of the work in-house. Some cases where we use this approach are for survey work that requires a Professional Land Surveyor, geotechnical investigations, and for right-of-way acquisition. Engineering Division staff manage the consultant contracts and coordinate the work.

We start by developing the conceptual, or 30%, design. The conceptual design is used in efforts to secure final design and construction funding, acquire right-of-way, and to obtain the necessary environmental permits. It is important to begin the permitting and acquire right-of-way process early, as either may take up to 18 months.

Funding primarily comes from the County Road Fund or through state and federal grants. The Road Fund comes from the County Road Levy, which is a property tax, and Skagit County's portion of the State's Motor Vehicle Fuel Tax. There are strict limitations within the State Constitution that define where Road Fund dollars can be spent. The Road Fund also includes an amount that is diverted to the Current Expense fund for Traffic Law Enforcement as prescribed in State Law. Road Fund money can either fully fund a project, or is often used as a match for grants.

After the concept is developed, we finalize the design by going through a few iterations to complete the ad-ready construction plans, specifications and estimate. These are the documents used in the bidding of the project, and become part of the contract. The Board of County Commissioners issue a Call for Bids, inviting contractors to submit bids for the project. The typical bidding period is two to three weeks, followed by the Bid Opening. The lowest responsive and responsible bidder is selected after review of all bids, or the bids may all be rejected. If one of the bidders is selected, the bid is awarded and the contract is then executed with the contractor.

Once the contract is executed, a pre-construction conference is held to discuss potential issues with the contractor, and a Notice to Proceed is sent to them. The contractor will start sending their submittals, and Engineering staff will review them for compliance with the contract documents. Unless otherwise negotiated, the construction will start within 10 working days. Engineering staff will manage the construction contract, review submittals, manage change orders, monitor the budget, inspect the construction, and process pay estimates. For large projects, a construction management company or the design firm may provide some of these services. At the completion of the project, we close the project out and process final payment.

Development Review and the Right-of-Way/Utility permit process ensures that developments and work performed within the County right-of-way by others complies with Skagit County ordinances, codes, and standards regarding roadways and drainage. This group is also responsible for right-of-way vacations and securing the appropriate easements or other right-of-way dedication related to frontage improvements brought about through the development process.

The Survey group performs topographic and right-of-way surveys in support of County projects. They also support other divisions and departments within the County, as well as private surveyors and engineers, by researching right-of-way deeds and dedications. The group also supports construction of County Forces construction projects by providing construction staking services.

Projects in Design for construction in 2019:

- Samish River Bridge Repair
- Friday Creek Bridge Repair
- Francis Road Section 1
- 2019 HMA Overlay
- Prevedal Road Repair
- Colony Mountain Drive Culvert Replacement
- Veteran's Memorial Park Improvements
- Martin Ranch Road Culvert Replacement
- Ferry Terminal Winch Replacement
- Guardrail Safety Project
- Active Warning Sign Project

2018 Accomplishments:

- Right-of-Way Acquisition and Vacations
- Franchise Agreements
- Vehicle Collision Reporting
- Service Requests from public, staff, WSDOT and other local agencies
- Priority Array Report
- Concurrency Report
- County Safety Report
- ADA Transition Plan (working)
- Traffic Count service for County and various local agencies
- Maintained County Freights and Goods System
- Bridge inspection of County's 110 bridges biennially as well as 25 owned by local agencies
- Development review of plats for layout and drainage
- Permit review for fill and grade, access, utilities, administrative variance requests, special use applications, and technical input for Code Enforcement Action
- Administration of Contracts in compliance with County Policy and State and Federal laws and regulations.
- Responsible for Procurement and Requirements to Federally Funded Grants and Projects
- Environmental Permitting
- Plan, Design, Coordinate, and Oversee a Wide Variety of Projects involving the Construction of Maintenance of Facilities, Buildings, Roadways, Bridges and Ferry System.
- Completion of the 2018 HMA Overlay Project that paved McLean Road between Best Road and La Conner Whitney Road.
- Completion of the Illabot Creek Alluvial Fan Restoration Project
- Substantial Completion of the Burlington Northern Overpass Bridge Project
- Completion of the Lafayette Road Improvements (Raspberry Ridge) Project
-

Submitted CRAB reports required for receipt of Certificate of Good Practice, including: indent items

- Annual Certification
- Demonstrates county's level of compliance with RCW/WAC
- Six Year Transportation Improvement Plan
- Road Levy Certification
- Annual Construction Program
- Annual Construction Report
- County Arterial Preservations Program (CAPP)
- Annual County Arterial Preservation Program (CAPP) Report
- Pavement Management Condition Ratings
- Pavement Management System (PMS) Certification
- County Budget Summary
- Work Plan and Budget for MMS (Maintenance Management System)
- Maintenance Management Annual Certification
- Road-log Update
- Traffic Law Enforcement Certification
- Fish Passage Barrier Expenditures
- Outside of the county right of way

Bridge Reconstruction Project

Burlington Northern Overpass Project

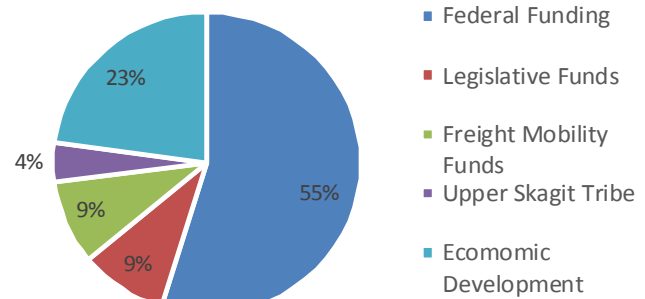
Burlington Northern Overpass Project



Project Funding Sources:

Federal Bridge Funds:	\$12,000,000
Legislative Funds:	\$ 2,000,000
Freight Mobility Funds:	\$ 2,000,000

Project Funding



Project Narrative:

The Burlington Northern Overpass was a timber and steel overpass crossing the BNSF Railway located on Old Highway 99 N, 3 miles north of Burlington, WA and 0.2 miles north of Cook Road. The Structure was originally built in 1936 by the State Department of Highways and subsequently transferred to Skagit County when Interstate 5 was built in the 1960's. Due to the age and deterioration from rot, the bridge has undergone a series of temporary repairs to keep the structure open to traffic.

The Burlington Northern Overpass is a vital link of both Skagit County and the State's transportation system. We recognize the importance and benefits of maintaining this main arterial for the local commerce and commuters. The existing structure was both structurally deficient and functionally obsolete, with a National Bridge Inventory System (NBIS) sufficiency rating 3 out of 100. The Burlington Northern Overpass carries approximately 6,000 vehicles per day and 15% of the traffic is trucks and freight.

The County began demolition and construction of the overpass on May 1, 2017 and completed construction November 30, 2018, on time and under budget. The new wider bridge will provide a safer designated area for bicycles and pedestrians to access, and also improve safety for the traveling public.

Previous Overpass



Present Overpass



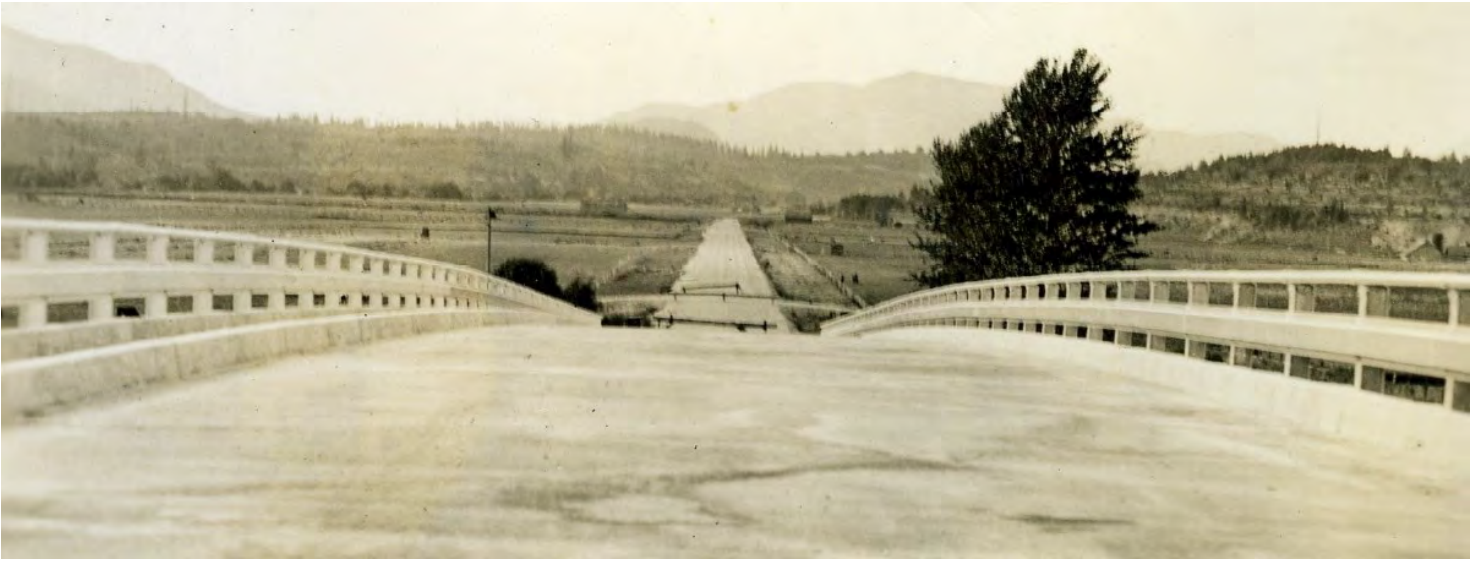
Burlington Northern Overpass Historical Project Photos



1930s Looking North before Construction



1930s During Construction



1937 Burlington Northern Overpass



1937 Burlington Northern Highway 99 Overpass South Approach

Road Reconstruction Projects

2018 HMA (Hot Mix Asphalt) Overlay

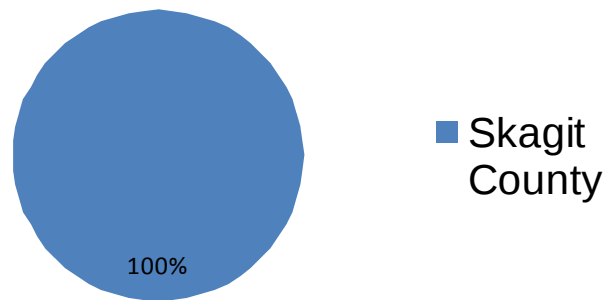
Before & After



Project Funding:

Total project costs was \$418,146. Skagit County utilizes Capital Arterial Preservation Program (CAPP) funding for surfacing improvements to the county road system.

Project Funding Graph



Project Narrative: The 2018 HMA Overlay Project is part of an annual program for improving Skagit County's arterial roadways by preserving the asphalt wearing surface. The western section of McLean Road between Best Road and La Conner Whitney Road was selected as this years project. The project involved grinding approximately 2-inches of asphalt from the road and replacing it with a new 2-inch layer of hot mix asphalt. This provides a new wearing course and extends the life of the road before deterioration reaches a point where complete reconstruction of the roadway is required.

The project was advertised for bid on March 29, 2018, with bid opening occurring on April 16, 2018. Two bids were received with Lakeside Industries, Inc. emerging as the low bidder. Construction began July 27, 2018 with Substantial Completion achieved on August 1, 2018, and Physical Completion achieved on August 8, 2018.

SKAGIT COUNTY



Placing the Asphalt



Road Reconstruction Projects

Lafayette Road Improvements

Funding Sources:	Skagit County	\$892,475
	Housing Authority of Skagit County	\$298,076

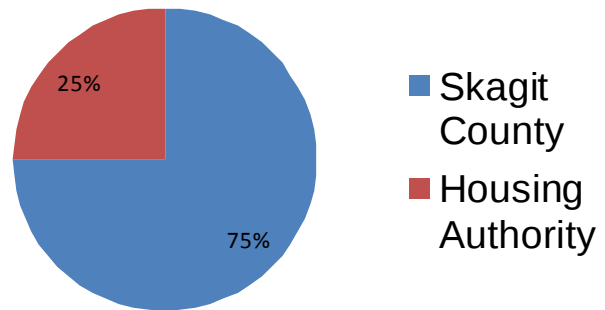
Before & After



Project Funding:

Total project costs was \$1,190,551. Skagit County and Housing Authority of Skagit County will each be contributing to a portion of the costs.

Project Funding Graph



Project Narrative: The Lafayette Road Improvement Project was a partnership between Skagit County, City of Burlington and the Housing Authority of Skagit County. The project began at the intersection of Gardner Road and ran east on Lafayette Road approximately 1300 feet (just before the 90 degree corner). Improvements added a center turn lane and widened the existing travel lanes. Curbs, gutters and sidewalks were added on both sides of the roadway. A new storm drainage system and City of Burlington sewer line were extended through the project area.

The project was advertised for bid on March 15, 2018, with bid opening occurring on April 2, 2018. Four bids were received with Trimaxx Construction, Inc. emerging as the low bidder. Construction began May 21, 2018 with Substantial Completion achieved on August 3, 2018, and Physical Completion achieved on October 16, 2018.

SKAGIT COUNTY



Inspection Staff

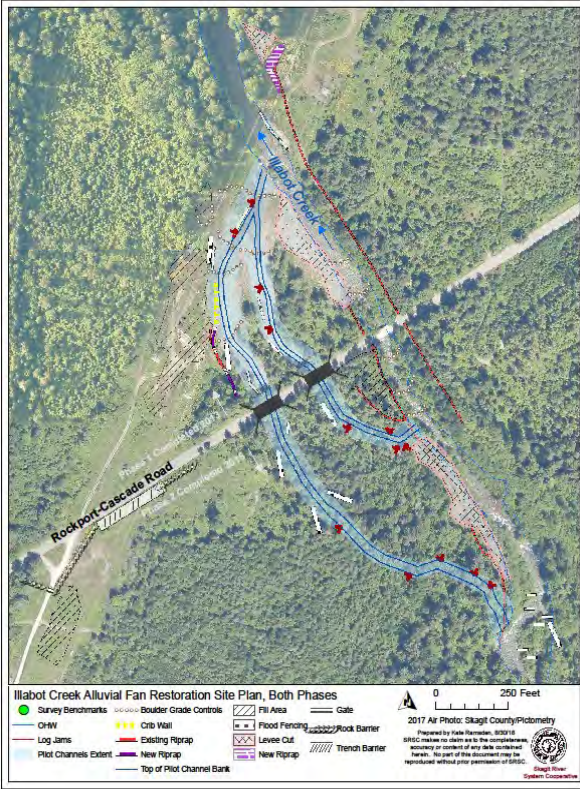


Road Reconstruction Project

Illabot Creek Alluvial Fan Restoration Project

Location: Rockport Cascade Road

Illabot Creek Alluvial Fan Restoration Project

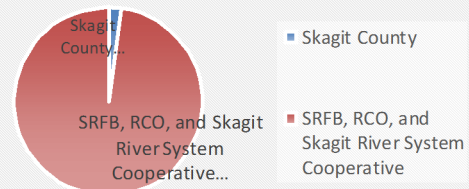


Project Funding:

Skagit River System Cooperative received grant funding from the Salmon Recovery Funding Board (SRFB) and the Recreation and Conservation Office (RCO), Skagit County will be contributing to a portion of the costs. Final project costs were \$5,000,000.

Structural and Salmon Habitat Restoration Project

Project Funding Graph



Project Narrative:

Illabot Creek is one of the most productive tributaries to the Skagit River, supporting relatively large populations of Chinook, Chum, Coho and Pink Salmon, native Char and Steelhead Trout. The goal of this project is to restore natural processes and improve habitat conditions on the alluvial fan of Illabot Creek by addressing impacts from the dikes and roadway. The County was involved in the Phase II of the channel restoration at the roadway crossing, that consisted of construction of two (2) new 100-foot bridges, raising of the roadway approximately 6 feet to clear the two (2) new channels, a temporary construction detour to maintain traffic during bridge/road construction, an additional 850 linear feet of levee and rip-rap removal, pilot channel excavation, and installation of log structures to improve habitat conditions. Phase II construction was complete in 2018, and is expected to substantially increase spawning and rearing habitat for fish species. The Illabot Creek Channel Restoration Project is a partnership with the Sauk-Suiattle Indian Tribe and the Swinomish Indian Tribal Community through the Skagit River System Cooperative. This project received the American Public Works Association 2019 Project of the Year Award on behalf of the APWA Washington State Chapter.

SKAGIT COUNTY



Illabot Creek



Solid Waste Division, Margo Gillaspy, Division Manager

The Solid Waste Division is responsible for the removal of all solid waste in Skagit County. The Skagit County Transfer Station on Ovenell is the final collection point for all solid waste generated in Skagit County. Material is brought to the Transfer station by commercial truck or self-hauler. Transfer Station staff direct traffic to ensure safety of all customers while they unload material. After the waste has been dumped on the tipping floor, Transfer Station staff will use a loader to push the waste into the compactor located below the tipping floor. There the waste is compacted to decreased volume and increase shipping efficiency. The material is pushed into a bin, and each bin holds approximately 30 tons of material. Once a bin has been filled and fully compacted, one of the transfer station drivers will drive the full bin over to the rail yard close to the Transfer Station. The bin will then be loaded onto a train and taken to the Roosevelt Landfill in Klickitat County where the waste is landfilled.

In addition to the Skagit County Transfer and Recycling Station on Ovenell, the Solid Waste Division operates two satellite sites to support solid waste disposal needs throughout Skagit County. These other sites include:

Sauk Transfer Station in Concrete;

Clear Lake Compactor Site in Clear Lake;

Each of these sites offers drop-off services for garbage disposal and household recycling as well as household appliances, used motor oil, batteries, and antifreeze. Recycled materials collected at all three transfer stations are taken to Skagit River Steel and Recycling for further sorting and processing. The Sauk Transfer Station and Clear Lake Compactor Site took in approximately 2% of the total waste collected in Skagit County.

In 2018, the three Skagit County sites collected 114,339 tons of solid waste and 2,155 tons of recycling.

The Solid Waste Division has a staff of 22 full-time and regular part-time administrative and operational employees as well as two on-call employees. The Division is responsible for Transfer Station operations, Household Hazardous Waste collection, Litter Crew program, Recycling Education, and Environmental monitoring programs for the County's closed and abandoned landfills.

Throughout the year the Solid Waste Division focused on improving the operation of the System ensuring that waste was handled as efficiently as possible, while maintaining our traditionally high level of customer service.

Rate Study

In 2018, the Solid Waste Division contracted with Bell & Associates, Inc. to conduct a rate study. The rate study looked at total costs and revenues for 2016 and 2017, and projected costs for the following five years. Based off the results, the rate study recommend and increase to the overall tipping fee in the Solid Waste Rate Structure as well as an increase in the minimum charge. The proposed Rate Structure took into account the rising costs of solid waste disposal, increasing labor costs, inconsistent grant funding, and the need for future compactor replacement. The Skagit County Solid Waste Advisory Committee (SWAC) has reviewed the rate study and approved the Rate Structure on September 12, 2018. The Skagit County Solid Waste System Governance Board reviewed and approved the Rate Structure on October 17, 2018. A Public Hearing regarding the proposed rates was held on January 15, 2019. The Skagit County Commissioners are expected to sign the resolution setting the final Solid Waste Rates in March 2019.

Litter Crew Program

The Litter Crew Program is an effective way to keep the County jail from becoming overcrowded by offering out-of-custody inmates the chance to show up for a job every morning and pay restitution to their community.

In 2018, the litter crew:

- Completed 14,528 supervised Community Services Hours;
- Cleaned 697 miles of county roads;
- Responded to 174 illegal dump sites;
- Collected 97,600 pounds of trash; and
- 81 individuals completed the Jail Alternative program.

The Litter Crew worked with Skagit County Public Health Department to collect and remove a total of 990 tires from Guemes Island. This one-day tire disposal event was organized by Public Health through a grant from the Washington State Department of Ecology.

Household Hazardous Waste Program

The Skagit County Household Hazardous Waste (HHW) Facility is operated within the grounds of the Skagit County Transfer and Recycling Station on Ovenell Road in Mount Vernon. The HHW facility is free for Skagit County residents to dispose of their household generated hazardous materials. Household hazardous waste includes such items as household cleaners, used motor oil, herbicides, fertilizers, air fresheners, and fluorescent lightbulbs.

The facility assisted 6,592 households in 2018 and disposed of approximately:

- 9,330 pounds of fluorescent lights;
- 13,709 gallons of used motor oil;
- 10 pounds of elemental mercury;
- 30,520 pounds of automobile batteries;
- 94,163 pounds of oil paint/solvents; and
- 62,175 pounds of toxic/pesticides materials.

In addition to County households, businesses that qualify as Small Quantity Generators (SQGs) of hazardous waste use the Facility for their hazardous waste disposal needs. Some examples of these businesses are dental offices, machine shops, tanning salons, and water treatment plants along with local cities. To qualify as a SQG, the business must produce less than 220 pounds of hazardous material per month.

In 2018, the Skagit County SQG program helped 192 local businesses dispose of approximately:

- 7,112 pounds of fluorescent lights;
- 350 gallons of used motor oil;
- 1,864 pounds of corrosive liquids;
- 14,837 pounds of oil paints/solvents; and
- 4,425 pounds of pesticides.

The Skagit County HHW Facility ensures the safe disposal of these materials out of our general waste stream which keeps the Transfer Station staff safe and helps to keep our land, air, and waters safe from contamination.

Solid Waste Outreach and Education

Throughout 2018, the Solid Waste Division continued to encourage residents of Skagit County to reduce waste through recycling, waste reduction, and composting education. This took place through a variety of community events listed below and social media outreach. The Skagit County Solid Waste Reduction/Recycling Education Specialist and Master Composter/Recycler Volunteers helped to lead waste reduction efforts through the following community events:

2018 Community Events for Outreach Education were:

- Storming the Sound Annual Conference, January
- SICBA Home & Garden Tour, March
- Master Gardener Plant Faire, May
- Skagit County Fair, August
- Skagit River Salmon Festival, September
- Various Skagit County Farmers Markets, April-October

In September through June, waste reduction education is offered through a variety of programs such as, assistance with cafeteria composting, school lunch waste audits, zero waste lunch education displays, classroom presentations, and waste reduction books and video lending to teachers. Since 1998, Skagit County has published a quarterly recycling newsletter and classroom activity pages for 4th and 5th grade students called Trash Talk! Trash Talk! continues to be published and was delivered to schools in 2018.

In 2018, the Public School Outreach events were:

- High School Green Career Panel
- Recycling 101 talks to K-12 through Skagit
- Composting and Vermicomposting programing to Skagit Public Schools, K-12
- Bayview Elementary School Classroom Presenations

Throughout the year, oversight was provided to three home composting demonstration sites. Locations include the Washington State University Master Gardener Discovery Garden in Mount Vernon, the Anacortes Community Gardens at 29th Street in Anacortes, and the Anacortes Community Gardens, at the Mount Erie School Community Garden. In 2018 all compost demonstration sites were maintained. The Washington State University Discovery Garden demonstration site continues to be the primary location for which all home composting workshops are taught by the County.

2018 Compost workshops were:

- Compost Education for Master Gardeners
- Vermicompost Workshop, February
- Home Composting Workshop, April
- Home Composting Workshop, May
- Home Composting Workshop, June
- Vermicompost Workshop, June
- Home Composting Workshop, September
- Home Composting Workshop, October
- Vermicompost Workshop, October

The Waste Reduction Recycling Education Specialist continued to organize and offer technical assistance for event recycling around Skagit County. These efforts helped to reduce waste at over 30 public events in 2017 including the Skagit County Fair and the Skagit River Salmon Festival.

Landfill Environmental Monitoring Program

The County Hydrogeologist manages the Environmental Monitoring Program for the Solid Waste Division. The Environmental Monitoring Program includes groundwater and landfill gas (LFG) monitoring and maintenance of landfill caps and appurtenances at three closed landfills: Gibraltar, Inman, and Sauk, and the operation and maintenance of the LFG extraction and leachate collection system at Inman Landfill. The Environmental Monitoring Program also includes the investigation and management of several older landfills located throughout the County, including the environmental investigation of Whitmarsh Landfill.

Solid Waste Fund Fund 401

Revenues	2018
Taxes/Assessments	
Intergovernmental Revenue	356,300
Charges for Services	11,100,916
Miscellaneous	23,534
Other	
Total Revenue	11,480,750
Expenditures	2018
Salaries and Wages	1,250,729
Benefits	562,057
Supplies	172,906
Other Services and Charges	7,541,969
Intergovernmental Services	540,786
Debt Service	361,826
Total Expenditures	10,430,273
Net Increase/Decrease	1,050,477

Cash Basis Statement, for GAAP, see County's CAFR for 2018



Equipment, Rental and Revolving Fund, Rick Owens, Division Manager

The Equipment Division Also known as “ER&R” or the “County Shop”



Staff

Rick Owens	Division Manager
Jeff White	Shop Supervisor
Leslie Bosa	Inventory Clerk
Allison Lake	Staff Assistant II
Travis Serna	Maintenance Mechanic III
Rex Elliott	Maintenance Mechanic III
Andrew Brown	Maintenance Mechanic III
Jesse Breckenridge	Maintenance Mechanic II
Casey Haveman	Maintenance Mechanic I
Ezra Sanderson	Shop Aide

What is ER&R?

Equipment Rental and Revolving funds, also known as ER&R funds, are established to provide equipment rental service within local government. Per RCW 36.33A all Counties shall establish an ER&R fund to be used for the purchase of equipment, materials and supplies needed by the county road Department. Skagit County's ER&R Fund was established by resolution #8059 on July 24, 1979. It is the duty of the County Engineer to administer the ER&R fund. The County Engineer is responsible for determining how rental rates are calculated and is held accountable by the County Road Administration Board (CRAB) for all equipment purchases.

ER&R Mission

ER&R is to be run like a business - rental rates should cover all expenses including fuel and provide enough funding to replace vehicles and equipment at the end of their useful lives. Reserves will be used for large projects like gravel crushing contracts or other capital improvement projects. Reserves can also be used to offer rental rate reductions to all County Departments which we have been able to do for the last three years in a row.

The ER&R Fleet

Basically anything with a steering wheel and a County logo on the door is part of our fleet. We rent vehicles and equipment to 29 different county departments or divisions. Our four biggest customers are Road Operations, Solid Waste, the Sheriff Department and the Parks Department. We currently have 341 total units in the ER&R fleet. Here is a list of some of the variety of equipment that we purchase and maintain:

Dump trucks	Front end loaders
Tractors with boom mowers	Road graders
Excavators	Sweepers (kick off and vacuum)
Rollers	Chip Spreader
Sod picker	Paint Striper Truck
Vactor truck	Road oil distributors
Roadside vegetation management truck	One ton trucks
Garbage bin hauling trucks	Vans
Pickups Cars (gas, hybrid and electric)	SUV's
Riding mowers	Ballfield equipment
All-Terrain Vehicles	Patrol vehicles
Tractors with loaders and attachments	
Small non-drivable equipment like pumps, plate compactors, jumping jacks	
Operations Division Mower in the shop for routine maintenance.	



Reimbursable Customers

We also have several Reimbursable customers. These customers have us maintain vehicles and equipment that are not owned by our division. We have customers who we have worked with for several years including the Central Valley

Ambulance Authority, the Sheriff Task Force and Search and Rescue. In the last two years we have entered into Interlocal agreements with Public Utility District No 1 of Skagit County and the City of Sedro Woolley Equipment. These two agencies have equipment that is the same or very similar to what we have at Skagit County. They do not have the facility or the experienced mechanics that we have. After jobs are completed our customers are billed for parts and materials and pay a 9 percent administration fee.

Working for other County Departments and Divisions

Our crew performs a variety of work for other County departments. The following are just a few examples:

- Engine swaps and many other maintenance activities for the Guemes Island Ferry
- Repair work to 30 yard roll off dumpsters for the Solid Waste Division
- Fabrication and installation of large steel gates for Road Operations
- Assisting with the demolition of large RV's for the Sheriff's Department
- Sharpening machetes for the Natural Resources Division
- Assisting environmental services with fish passage projects

Other Activities of the Equipment Division

- Annual Surplus Auction Process
- Create a list of surplus from all County Departments
- Call for a public Hearing
- Hold a public hearing
- Ask other local government agencies if they are interested in purchasing our surplus
- Prep everything on the list to go to auction
- Coordinate transporting to James G. Murphy auction yard
- Report all vehicle sales to Washington State Department of Licensing
- Manage the inventory of stockpiles in the following pits: Butler Pit, Duke's Hill Pit and Eagle Hill Pit.
- All pits are permitted and have approved reclamation plans from the DNR
- The most popular used products from our pits are ½" chip rock (used for chip sealing program), Sand (used for sanding icy roads) and 1 1/4 minus (used for road shoulders).

Central Stores

- Our Division purchases and keeps track of a variety of parts and materials. Examples of inventory that is tracked:
- Parts for the fleet
- Tires
- Road salt (mixed with sand and used on icy roads)
- Culvert
- Guardrail
- Paint (for striping center lines and fog lines on County roads)
- Road oil and tack (used for the annual chip sealing program)
- Fuel for the fleet

Fuel Depots

We maintain three sites (Burlington Shop, Concrete Shop and Sheriff's Office)

- 3 underground unleaded tanks (Total capacity of 20,000 gallons)
- 2 underground diesel tanks (Total capacity of 22,000 gallons)
- 11 dispensers

Tanks are tested for leaks and dispensers are calibrated once a year by a private company

All fuel storage sites are inspected by the Department of Ecology once every three years.

Facilities in Burlington and Concrete

This is a team effort between the Equipment Division and the Road Operations Division. We are responsible for everything from making sure that the yards are winterized each year to cleaning out the oil water separators to painting the lines in the parking lots.

Burlington Yard Includes:

- Mechanic Shop
 - Road oil tank farm
 - Wash rack
 - Two truck sheds
 - A sign shop
 - The old shop along HWY 20
 - A sand /salt storage building
 - Admin (offices and crew room) building
- Concrete Includes:
- Shop / truck shed
 - Sand / salt storage building
 - 800 MHZ radio system.

Maintenance Material Bid Process

Each December we advertise a call for bids for the following products: Liquid Asphalt, Gravel and Rock Products, Specialty and mixed asphalt, concrete, road salt, culvert lining and slope stabilization products

We open bids in January for these products which will be used by the Road Operations Division to complete their maintenance activities.

We enter into contracts with all vendors who we think we will spend over \$25,000 in a one year period.



Leonard Ridge Radio Tower

The County has over 200 mobile and portable radios. The radio system is not used nearly as much as it once was because cell phones are the primary form of communication. However, cell phones stop working during some emergencies so it is important for us to keep radios in all the emergency response vehicles and in construction equipment so that crews can communicate. Our crew installs and programs the radios that go into new equipment. We maintain the repeater site at Leonard Ridge. This site is powered off of 20 solar batteries. Two other repeater sites (Lyman Hill and Devil's Mountain) are maintained by a contractor.

Equipment Rental & Revolving Fund 501

Revenues	2018
Taxes/Assessments	-
Grants	-
Charges for Services	2,267,973
Miscellaneous	3,606,319
Other	119,204
Total Revenue	5,993,496
Expenditures	2018
Salaries and Wages	568,282
Benefits	245,833
Supplies	2,533,298
Other Services and Charges	1,058,305
Intergovernmental Services	166,111
Capital	1,967,500
Interfund Payment for Services	6,539,329
Total Expenditures	6,539,329
Net Increase/Decrease in Fund Balance	(545,833)

2018 Vehicle and Equipment Purchases

(Total Cost Includes all Outfitting)

Description	Total Cost	Department
SUBURBAN	\$ 55,902.87	Coroner
4-AXEL DUMP TRUCK	\$ 190,595.61	Operations
4-AXEL DUMP TRUCK	\$ 188,595.73	Operations
COMPACT TRACTOR W/ LOADER	\$ 41,600.68	Parks
ROAD GRADER	\$ 304,992.59	Operations
KICKOFF SWEEPER	\$ 72,690.29	Operations
ROLLER	\$ 181,099.57	Operations
TILT BED TRAILER	\$ 46,777.48	Operations
2WD MID SIZED SUV	\$ 21,485.15	Health
4WD MID SIZE SUV	\$ 31,606.45	Motorpool
2WD MID SIZED SUV	\$ 21,770.85	Records
2WD MID SIZED SUV	\$ 21,880.57	Health
FLAGGER PICKUP W/ FLATBED	\$ 40,139.78	Operations
FLAGGER PICKUP W/ FLATBED	\$ 41,183.47	Operations
3/4 TON PICKUP	\$ 35,535.82	Operations
1/2 TON PICKUP	\$ 41,485.34	Operations
FULL SIZE SUV	\$ 68,601.57	Sheriff
FULL SIZE SUV	\$ 69,265.66	Sheriff
FULL SIZE SUV	\$ 67,980.46	Sheriff
FULL SIZE SUV	\$ 68,249.90	Sheriff
FWD MID SIZED SUV	\$ 53,477.99	Sheriff
FWD MID SIZED SUV	\$ 53,596.49	Sheriff
FWD MID SIZED SUV	\$ 53,367.87	Sheriff
FWD MID SIZED SUV	\$ 53,288.87	Sheriff
FWD MID SIZED SUV	\$ 53,288.88	Sheriff
FWD MID SIZED SUV	\$ 53,565.38	Sheriff
FWD MID SIZED SUV	\$ 53,288.90	Sheriff
FWD MID SIZED SUV	\$ 53,486.39	Sheriff
FWD MID SIZED SUV	\$ 53,525.87	Sheriff
FWD MID SIZED SUV	\$ 53,287.60	Sheriff
TOTAL	\$ 2,145,614.08	

Natural Resources Division, Michael See, Division Manager

The Natural Resources Division of Skagit County Public Works is comprised of two Sections: Surface Water (Drainage Utility Fund 402) and Water Resources (Clean Water Fund 120). A highly-trained staff of 15 manages a number of programs to provide clean water, effective drainage, flood damage reduction and restoration. Partnering with dike and drainage districts, tribes, state and federal agencies, Skagit Conservation District and local non-profit agencies, Skagit County effectively leverages local funding sources and resources for maximum efficiency and results.

The Natural Resources Division works closely with:

- Engineering Division
- Operations Division
- Solid Waste Division
- Skagit County Planning and Development Services Department
- Skagit County Environmental Health

The Clean Water Program developed from the Clean Water (Shellfish Protection) District (CWD) created in 1995, which was originally designed to reduce bacterial pollution in Samish Bay by correcting failing septic systems in Edison and Blanchard.

From 1999 – 2005, Skagit County monitored water quality throughout the Samish Watershed. This monitoring revealed an ongoing fecal coliform pollution problem. Fecal coliform indicates the presence of bacterial organisms that can cause diseases such as typhoid fever, viral and bacterial gastroenteritis, hepatitis, and norovirus.

As a result of the continued high bacterial levels, Skagit County created the Clean Water Program (CWP) to strengthen non-point pollution reduction measures, educate the public, control non-point pollution, and develop a more thorough water quality monitoring program.

All of the programs listed within this publication are wholly or partially funded by the CWP and are dedicated towards improving Skagit County's water quality.

Marine Resources Committee

Established in 1999, the Skagit County Marine Resources Committee (SMRC) is one of seven citizen-based advisory committees formed under the congressionally authorized Northwest Straits Marine Conservation Initiative (NWSI). SMRC has been primarily supported by federal grant funding through the NWSI and the Northwest Straights Commission, and partly by the Clean Water Program (CWP) and other grant funding administered through the Northwest Straits Foundation (NWSF). Below are some of the 2018 highlights:

Education and Outreach

Fidalgo Bay Day: Fidalgo Bay Day is a free, fun, educational event for citizens of all ages who want to learn about the marine environment and what they can do to help protect it. Some of the event highlights included: beach seining, beach walks, a portable touch tank with marine critters, educational displays, games, and kid's crafting activities. Over 400 visitors attended SMRC's 15th annual Fidalgo Bay Day on September 15, 2018 at the beautiful Fidalgo Bay Resort in Anacortes.

Salish Sea Stewards

SMRC's signature Salish Sea Stewards (SSS) program provides over 40 hours of classroom and some field-based training for volunteers. The classes are taught by qualified experts and cover marine science-related topics and important issues impacting the Salish Sea. Twenty-five new volunteers completed the training in 2018, for a combined total of 120 Stewards in Skagit County. 23,888 hours have been contributed by volunteers since the SSS program was established four years ago.

Kids on the Beach

The Kids on the Beach was a pilot program of the SMRC in 2018 that engaged 50 eighth grade students from Conway Middle School in a variety of hands-on science activities on the beach and in the classroom. Twenty-five volunteers assisted students with the field activities. Students developed scientific proposals and generated real scientific data that will be used by the Washington Department of Fish and Wildlife, and presented their findings at a research symposium.

Marine Habitat Protection and Restoration

SMRC partnered with the NWSF in a coordinated effort to continue post-construction monitoring at the SMRC's Bowman Bay and NW March's Point nearshore restoration sites with the help of trained volunteers. Nearshore monitoring parameters include forage fish spawning surveys, beach seining, intertidal monitoring, and beach wrack and large woody debris surveys. In 2018, 84 volunteers logged over 939 hours of nearshore monitoring.

Bowman Bay Nearshore Restoration

Skagit MRC partnered with the Skagit Fisheries Enhancement Group (SFEG) to recruit volunteer stewards to weed and water the nearshore vegetation at the Bowman Bay restoration site during 2018. Five volunteer work parties were held between May and August to weed and water the plants. A total of 18 volunteers contributed approximately 62.5 combined hours to assist with plant maintenance.

Marine Species Protection and Restoration

Pinto Abalone Recovery

Since 2009, as part of an ongoing collaborative effort to recover the serious declining pinto abalone population, over 9,200 hatchery-raised juvenile abalone have been introduced to six different outplant sites in Skagit County. In 2018, SMRC partnered with the Puget Sound Restoration Fund (PSRF) to conduct diver surveys. Survey data indicates that abalone are growing larger in size and density and spreading beyond the four original restoration sites.

Olympia Oyster Restoration

Since 2002, SMRC has been working collaboratively with PSRF and other partners to establish several sustainable native Olympia oyster beds in Fidalgo Bay. In 2018, volunteers surveyed new oyster settlement and helped deploy oyster shell to provide additional habitat for oyster larval settlement. We now have an estimated 3 million oysters in Fidalgo Bay. 6 volunteers contributed over 153 hours toward Olympia oyster restoration in 2018.

Pollution Identification and Correction Program

The mission of Skagit County's Pollution Identification and Correction (PIC) program is to protect the public from water-borne illness and other related water-quality hazards. Water polluted with FC bacteria has been our primary concern; however, PIC methods can be used for nutrients, sediment, temperature and other pollutants. Skagit County's PIC program has been operating since 2010 and has been successful in reducing levels of FC bacteria in the Samish Bay and Padilla Bay watersheds.

Water quality monitoring is the core of any PIC Program. Sampling sites are identified near the confluence of streams and are monitored on a regular basis. Where high levels of pollutants are found, source identification sampling occurs upstream to identify where the pollution is coming from. Staff then follow up with site visits to property owners to identify the source of pollution, working with them to correct any problems that are found. Common sources include pets, leaking septic systems, and livestock such as horses, cows, and pigs.

Thanks to partnerships with other organizations, the PIC program is able to offer resources to property owners who may have problems on their property that need to be solved. With the help of partners like the SCD, the Skagit County Health Department, and the SFEG, we can offer low interest loans and grants for septic system repairs or replacements, free and confidential farm assessments by trained farm planners, assistance with farm management, and financial assistance for fencing, invasive plant removal, native plantings, and other projects.

Clean Samish Initiative

The Clean Samish Initiative (CSI) is a partnership established in 2008 between state and local agencies, tribes, and volunteers to identify and correct sources of bacterial pollution in the Samish Bay watershed. Led by Skagit County, the CSI partners work to reduce FC bacteria levels in the watershed to meet state water quality standards and protect commercial shellfish beds from pollution.

Due to strong community participation and stewardship activities, we are continuing to make progress, and we are closer to our goal than ever. Several livestock pollution problems were identified and confirmed, and eight failing septic systems were repaired or replaced in 2018. We brought a sewage-sniffing dog to Skagit County in February, and collaborated with the University of Washington during the spring and fall to look for chemicals in the water that might indicate the source of pollution.

Outreach and education to encourage property owners to identify their own problems and reduce their personal impact is a core function of our program. In April, we released our PoopSmart campaign (poopsmart.org), taking a light-hearted approach to the subject. We attended a variety of public events, were interviewed on the radio and evening news several times, produced several videos on related topics, and increased our presence on social media. Skagit County is committed to experimenting with new methods to improve our work.

Water Quality Monitoring Program

Skagit County's Water Quality Monitoring Program (SCMP) was initiated as part of the Monitoring and Adaptive Management component of the current Critical Areas for Ongoing Agriculture (SCC 14.24.120)(Ag-CAO). The monitoring program began in October 2003 and consists of 40 sites throughout western Skagit County, located both within and outside of areas zoned Agricultural Natural Resources Lands (Ag-NRL) and Rural Resource.

Each sampling site is visited biweekly (26 times per year), and staffers measure such parameters as dissolved oxygen, temperature, pH, turbidity, conductivity, and salinity. Samples are also obtained for laboratory analysis of FC bacteria (each visit) and nutrients (quarterly).

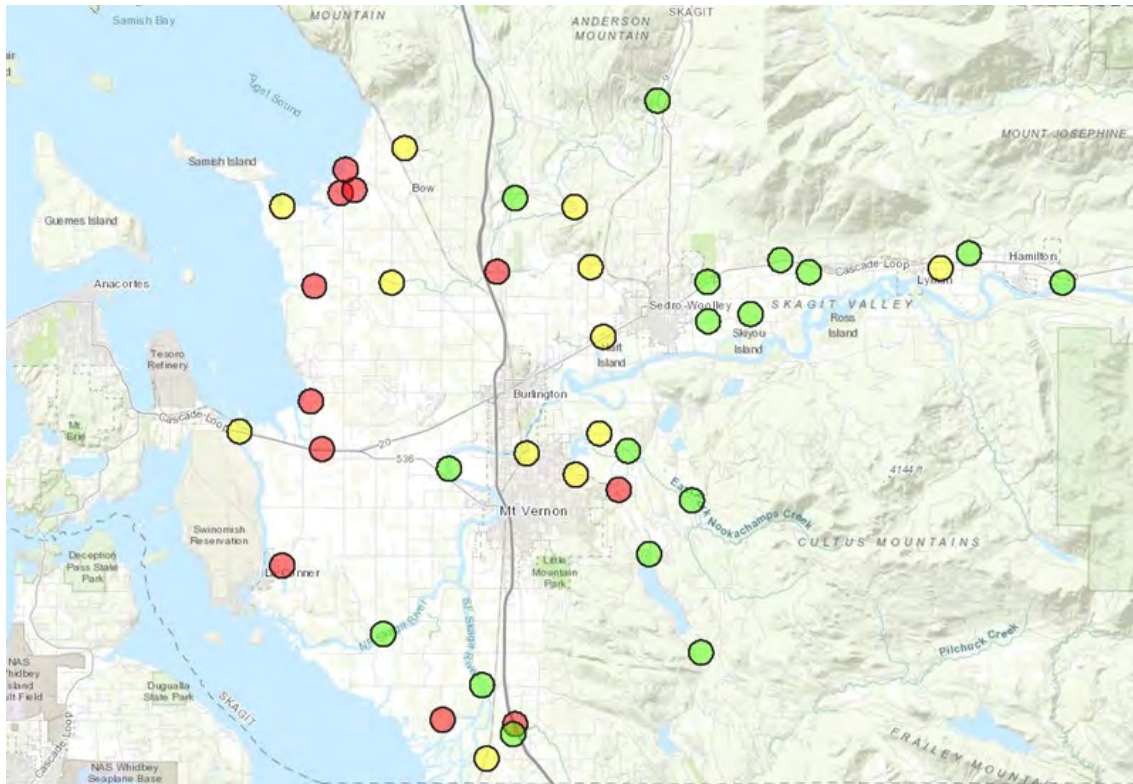
The intent of the SCMP is to assess current water quality conditions and determine if positive or negative trends in water quality are occurring in areas affected by the Ag-CAO, and to determine if those trends are unique to agricultural areas or widespread throughout the county. Data analysis indicates that for the length of the study, there are several statistically significant trends in water quality in Skagit County. As of the end of 2017 (latest data available), negative trends outnumbered improving trends, although there were more improving trends in 2017 than 2016. Positive and negative trends occurred in both agricultural and non-agricultural locations.

Another measurement we use is the Water Quality Index (WQI), intended as an overall look at the water quality of a given watercourse. In the last few years, there has been an increase in the number of monitoring sites that meet the "lowest concern" or green category. In 2010, there were 13 green sites out of the 40 monitoring locations. In 2018 there were 23 green sites, 8 more than in 2016. See the table below for the history of WQI findings in the monitoring program.

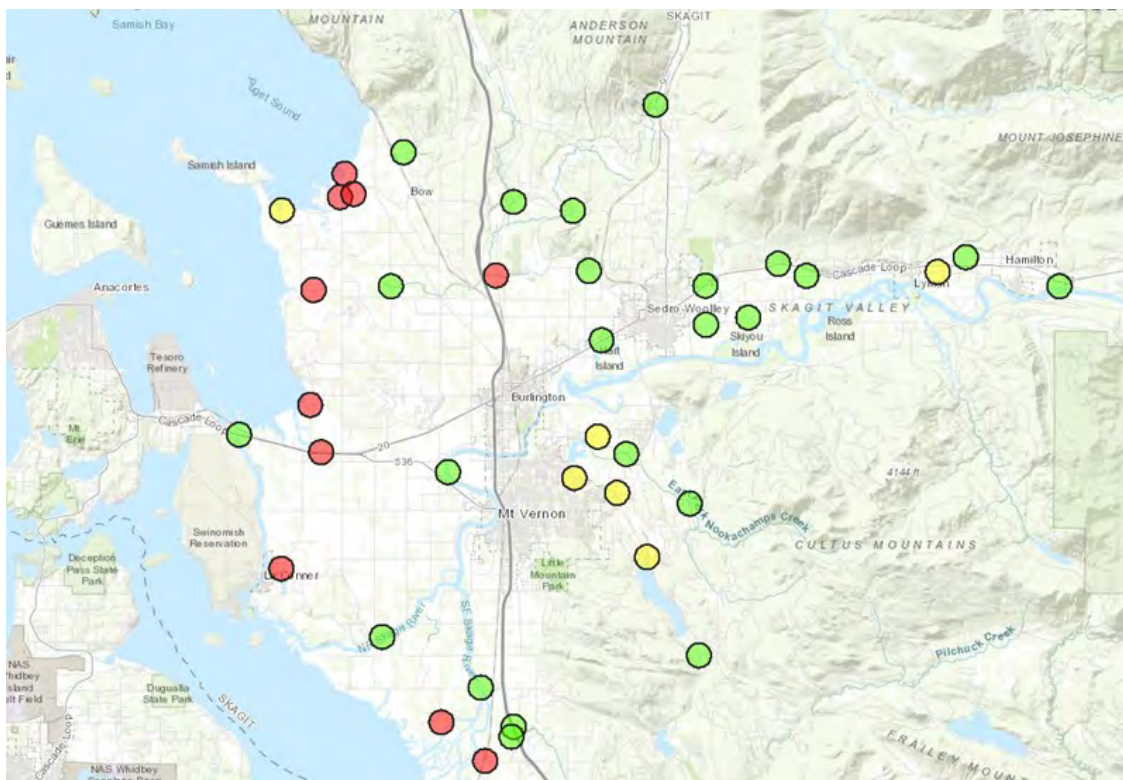
Several years ago, SCMP monitoring revealed FC problems in the Samish River. This finding led to the formation of the CSI. Part of the CSI's effort is the PIC program, designed to locate and remediate sources of pollution through cooperative, common-sense measures.

Water quality monitoring remains an important component of the Skagit County Public Works – Natural Resource Division's functions. Water quality is an important barometer of natural resource conditions as we seek to protect and restore our aquatic resources.

Water Monitoring Program 2009-2018



2009



2018

Fish Habitat Restoration Program

The Fish Habitat Restoration Program (FHRP) is an ongoing County program dedicated to protecting water quality and fish habitat and is guided by the Habitat Improvement Plan (HIP). The mission of the HIP is to create and advance restoration strategies that support Skagit County goals for promoting the health of our watershed, improved water quality, and enhanced habitat for salmon. The HIP provides a road map for restoring salmonid habitat and improving water quality by identifying short, medium, and long-term project goals while allowing flexibility to work on opportunistic projects.

Projects designed to improve fish habitat also have water quality benefits. Riparian vegetation acts as a filter by removing pollutants before they reach streams, while at the same time providing distance between pollutant sources and streams, and stabilizing banks. Riparian habitat restoration therefore results in improved stream temperatures, reduced pollution levels, and can improve sediment transport.

Skagit County has more than 800 miles of roads with hundreds of culverts. Since 1999, the County has replaced about 50 small, inefficient, and/or failing culverts with larger culverts or other fish-friendly crossings. Smaller, older culverts act as barriers for fish attempting to make the upstream migration while also easily plugging, causing erosion, or flooding upstream. Small culverts often present a velocity barrier for fish attempting to migrate through them, and perched culverts prevent fish from jumping into the culvert, meaning they can't access habitat available upstream. Conversely, large culverts and bridges allow water to flow through at a more natural rate while also passing debris associated with streams. This provides a more stable stream environment for fish that also reduces flooding problems on private properties and on County infrastructure. Reducing flooding and erosion problems also improves downstream water quality throughout Skagit County.

The County routinely applies for grants from various agencies including the State Recreation and Conservation Office, Salmon Recovery Funding Board, Department of Ecology, National Fish and Wildlife Foundation, and private sources. Additionally, we partner with various organizations throughout the County, including local Tribes, SFEG, Skagit Land Trust, and others.

Some of the Fish Habitat projects from 2018:

- County culvert analysis, prioritization, and project development
- South Fork Delta Channel on-going design
- Maintenance on existing restoration projects
- Cedargrove Avenue fish passage improvement
- Maddox Creek culvert removal
- Natural Resources Stewardship Program

Clean Water Fund 120

Revenue and Expenditures

Revenues	2018
Taxes/Assessments	1,478,541
Grants	342,379
Charges for Services	
Miscellaneous	8,405
Other	
Total Revenue	1,829,325
Expenditures	2018
Salaries and Wages	494,249
Benefits	252,997
Supplies	32,056
Other Services and Charges	780,794
Intergovernmental Services	
Capital Outlays	
Interfund Payment for Services	236,870
Total Expenditures	1,796,966
Net Increase/Decrease in Fund	
Balance	32,359

Drainage Utility Fund 402

Skagit County's drainage problems are interrelated and ongoing. Often, the source of a drainage problem is from surface water or runoff that has traveled from other parts of the County. Managing our stormwater and drainage problems can be very expensive, particularly if it involves capital improvements. Long-term solutions are often too costly for individual drainage districts or property owners to bear alone and are unfair, many say, because surface water from other parts of the County can contribute to localized problems. In addition, solving one problem may also create or affect other drainage concerns nearby or many miles away. The Drainage Utility is a solution that addresses the needs of everyone and shares the costs in an equitable manner.

History of the Drainage Utility

For many years, road funds provided the only source of funding for drainage projects. As a result, Skagit County only addressed drainage problems within County road rights-of-way.

In order to address a wider range of drainage problems, Skagit County pursued the idea of a County-wide Drainage Utility. Led by constituent pressure and support, the Drainage Utility formed in December 1994.

The Drainage Utility now allows the County to address drainage problems unrelated to road drainage while allowing road funds to focus on roadway improvement projects. The Drainage Utility includes all areas within Skagit County with the exception of those with established service boundaries of their own. These exceptions include drainage districts, incorporated cities and towns, federal and reservation lands, commercial timber lands, and waterways.

What drainage issues does the Drainage Utility address?

Many water-related projects ranging from the construction of pump stations and piping to tide gates and ditching systems are eligible for Drainage Utility funding. Problems associated with the impacts of increased stormwater from developed areas are also eligible.

The Drainage Utility only addresses drainage concerns; however, stormwater-related water quality issues may also be corrected by a Drainage Utility Project. For example, a soil stability and erosion reduction project that includes river and stream bank restoration may also correct excessive sedimentation resulting from stormwater runoff.

All drainage and stormwater problems are evaluated and prioritized to ensure that the most urgent needs are dealt with in an expedient manner. Given the large number of problems identified to date, as well as fixed financial resources, lower prioritized projects may not be immediately corrected, but the County reviews and assesses every problem reported.

State law mandates that Drainage Utility funds may only be used for stormwater control facilities. However, Drainage Utility funds can be used on cooperative watershed management actions, including watershed management partnerships and other governmental agreements, for purposes of water supply, water quality, and water resource and habitat protection and management.

Successful Partnerships

The Drainage Utility covers most of the county, with some exceptions including drainage districts, cities, tribal lands, and forest lands. However, it was recognized that watersheds may overlap both Drainage Utility properties and exempt properties. Because of the mutual impact, Drainage Utility projects have been constructed in partnership with many groups, including:

- Dike, Drainage and Irrigation Improvement District 5
- Dike, Drainage and Irrigation Improvement District 12
- Drainage and Irrigation Improvement District 14
- Drainage and Irrigation Improvement District 15
- Drainage and Irrigation Improvement District 16
- Drainage and Irrigation Improvement District 17
- Drainage and Irrigation Improvement District 19
- Drainage District 21
- Consolidated Diking Improvement District 22
- Dike, Drain and Irrigation Improvement District 25
- Skagit River System Cooperative
- Sauk-Suiattle Indian Tribe
- Swinomish Indian Tribe
- Upper Skagit Indian Tribe

Partnerships have enabled the completion of dozens of mutual benefit projects over the years, including some of the projects shown below:



No Name Slough Bypass Culverts



*Maupin Road Conveyance Improvement
Dike & Drainage District 22
(2008)*



Red Creek Culvert Replacement



Bay View Padilla Bay Culvert Extension



Brown Slough Pipe Lining



Samish Flood Return Pipe Lining

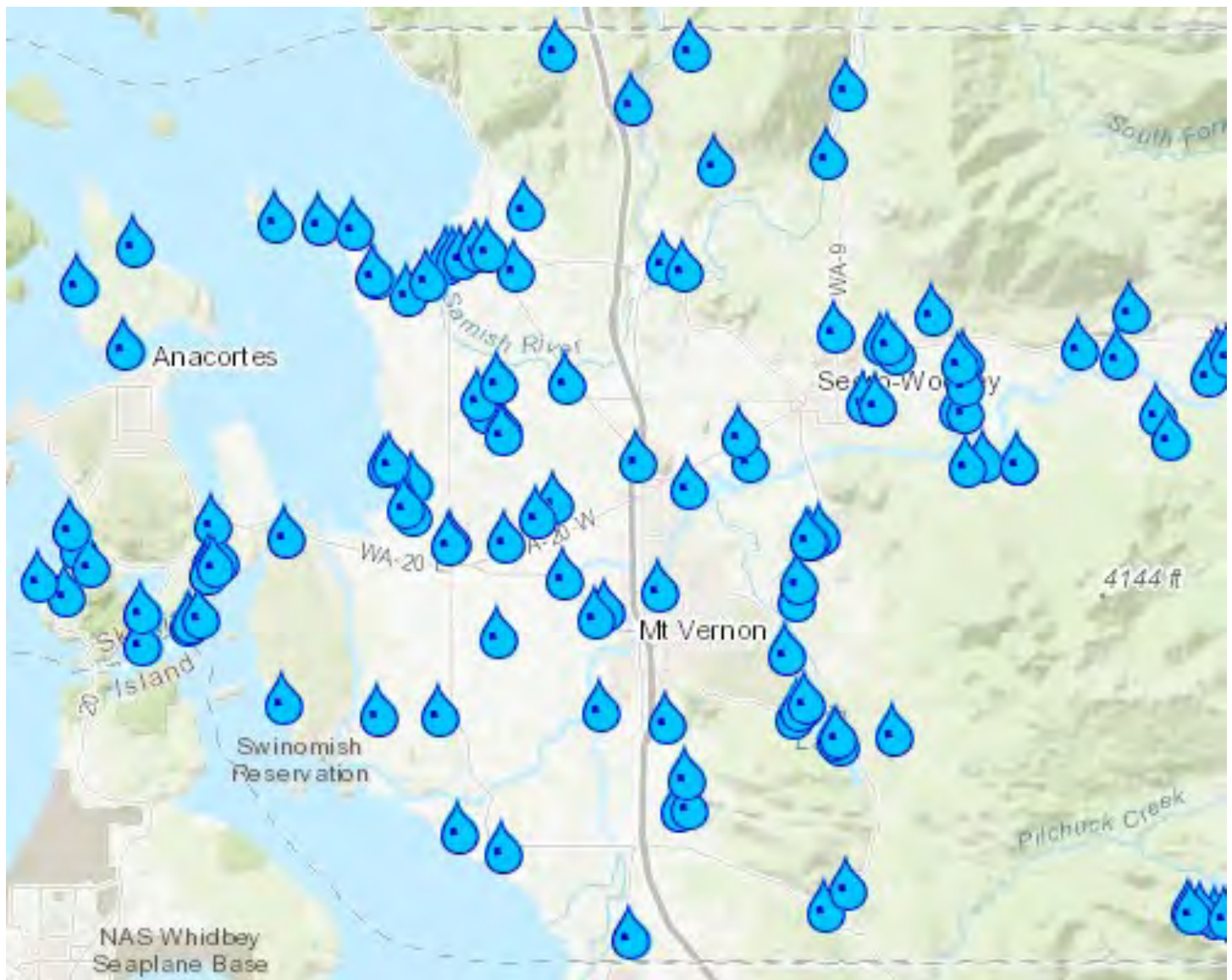


Joe Leary Slough Bridges

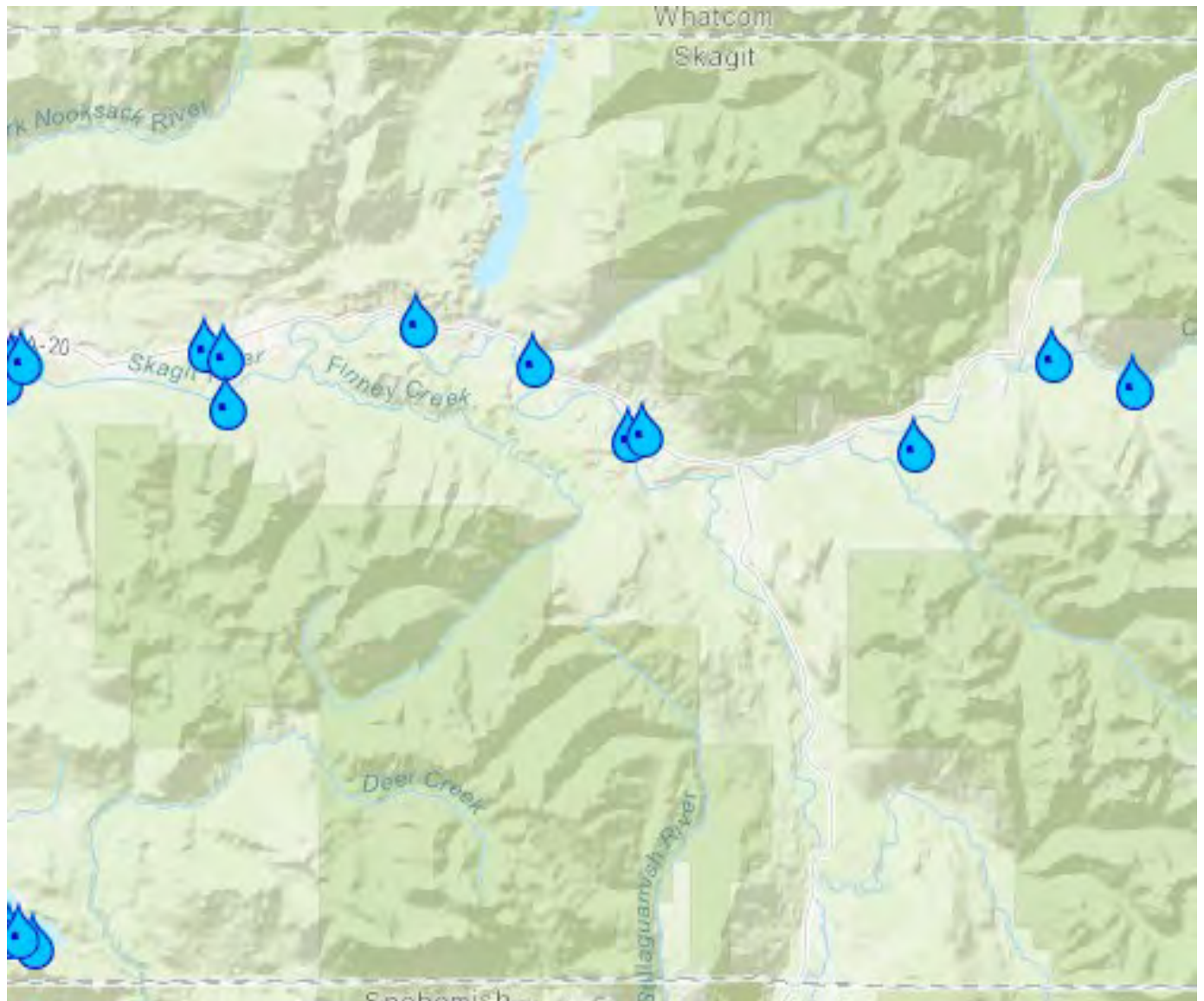


Chilberg Pump Discharge Pipe Lining

Drainage Utility Projects 1999-2018



Drainage Utility Projects 1999-2018



Drainage Utility Fund 402

Revenues	2018
Taxes/Assessments	1,735,543
Grants	1,026,738
Charges for Services	
Miscellaneous	10,666
Other	
Total Revenue	2,772,947
Expenditures	2018
Salaries and Wages	345,144
Benefits	180,021
Supplies	14,730
Other Services and Charges	456,517
Intergovernmental Services	104,720
Capital Outlays	1,341,374
Depreciation	
Total Expenditures	2,442,506
Net Increase/Decrease in Fund	
Balance (Cash Basis)	330,441

Conservation Futures/Farmland Legacy Program Fund 122

Conservation Futures/Farmland Legacy Program Fund 122

The Skagit County Farmland Legacy Program is a County initiative that purchases agricultural easements on Skagit farmland, and works to support policies, programs, and plans that enhance the protection of farmland. Funding comes from the conservation tax and is often leveraged with federal and state grants and private donations. The Farmland Legacy Program became part of Skagit County Public Works in 2014.

Responsibilities

The Skagit County Conservation Futures Advisory Board is responsible for administering the Farmland Legacy Program, which purchases development rights and places perpetual conservation easements on agricultural lands.

Program Concept

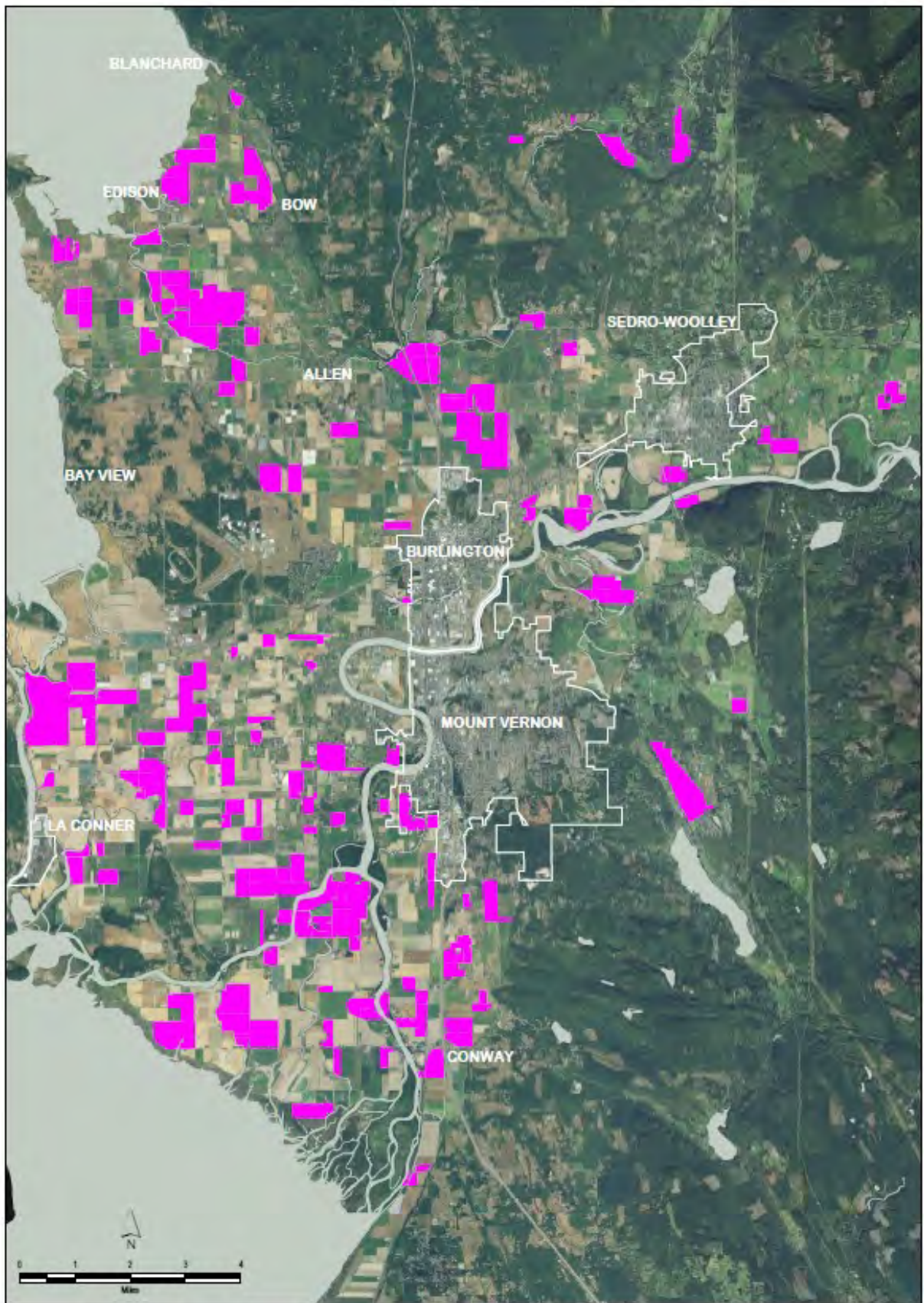
Easements are held by the County in perpetuity. The property owner continues to own the land and may sell or lease the farm if he or she chooses but the development restrictions run with the land. The intention is to maintain the farmland in a productive manner allowing uses that support that goal.



The Farmland Legacy Program is a purchase of development rights program designed to preserve agricultural lands through conservation easements. The program is primarily supported by the County's Conservation Futures tax and is often leveraged against federal, state, and non-profit dollars. It is a voluntary program which enables landowners to sell their development rights to the County, while holding fee simple title to the land and continuing to farm. The easement places permanent restrictions on future use and development of the land in order to protect its agricultural character and productivity.

The principles of the Farmland Legacy Program are to preserve and enhance a critical mass of farmland to sustain the farm-related agricultural industry, to target key farmlands that are under pressure from development, to coordinate with other farmland preservation programs, and to provide for ongoing easement monitoring and enforcement.

The Program added 77 acres into Conservation Easements in 2018. Monitoring was completed on all easements in the FLP database and there were no compliance issues noted.



PROTECTED FARMLAND IN WESTERN SKAGIT COUNTY



Farmland Legacy Protected Properties

Map Print Date: October 27, 2016

Conservation Future/Farmland Legacy Revenue and Expenditures

Revenues	2018
Taxes/Assessments	931,218
Grants	74,406
Charges for Services	
Miscellaneous	11,847
Other	
Total Revenue	1,017,471
Expenditures	2018
Salaries and Wages	26,684
Benefits	13,461
Supplies	
Other Services and Charges	63,625
Intergovernmental Services	15,657
Capital Outlays	105,566
Interfund Payment for Services	-
Total Expenditures	224,993
Net Increase/Decrease in Fund Balance	792,478

Noxious Weed Program, Joseph Shea, Program Manager

Samish River Knotweed Program



Fig. 1. A heat map depicting the concentrations of knotweed along the Samish River.

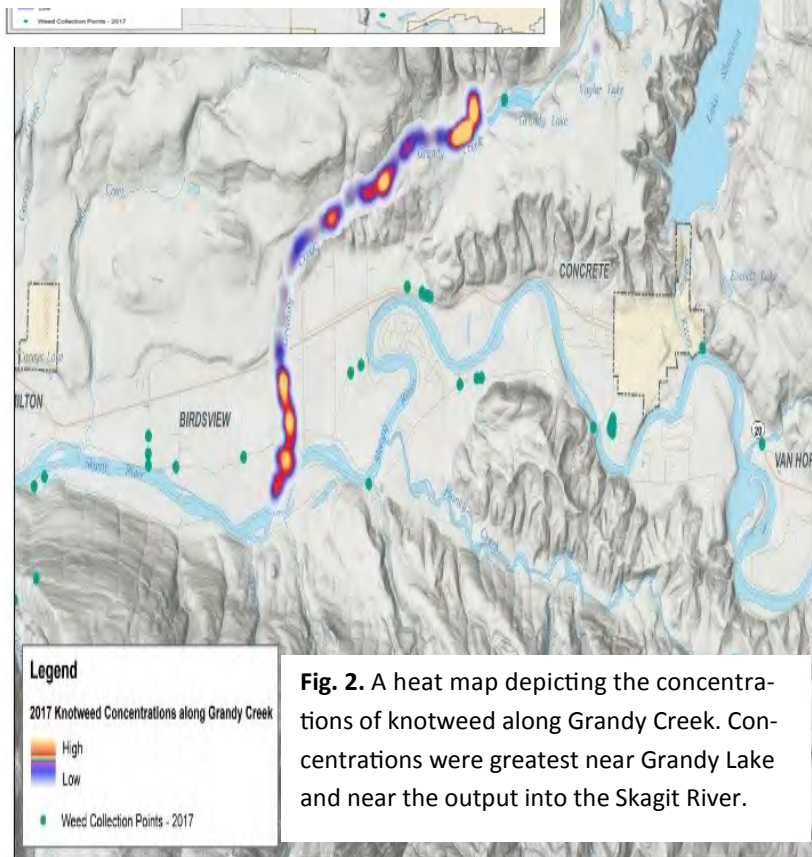


Fig. 2. A heat map depicting the concentrations of knotweed along Grandy Creek. Concentrations were greatest near Grandy Lake and near the output into the Skagit River.

From May 16, 2018 to October 3, 2018 for a total of 12 days, SCNWCB employees, with assistance from WCC crew members, surveyed approximately 9.8 river miles and 80 acres of riparian and upland habitats of the Samish River. This effort resulted in the treatment of 2.2 solid acres of knotweed. The efforts to control knotweed along the Samish River allowed SCNWCB employees to assist 16 different landowners. Approximately, 2.2 acres of knotweed along the Samish River were surveyed for and treated in 2018 while 3.1 acres were surveyed and treated during 2017 for a reduction of 30%. Much of the work in 2018 was retreatments, but treatment was initiated on a few properties that were not treated in 2017. Many larger knotweed stands that were surveyed in 2018 were only 40-60% controlled as they were difficult to get complete coverage of herbicide application. The continued use of iForm to record knotweed treatments and incorporating ArcGIS Collector to track survey lines is highly recommended to accurately represent the work conducted and the amount of knotweed treated. Having the ability to easily see past season's survey lines and knotweed treatments would help in determining the source of knotweed infestation along the Samish River. More funding is needed to further the treatments downstream on the Samish River. In 2019 we expect to put more efforts on the Upper Skagit River and therefore may have less funds available for the Samish River. Although we have seen great improvement on our treatment sites we may have to look for alternative funding sources to implement a watershed wide treatment of Japanese

Knotweed on the Samish River watershed. Combining the treatment of knotweed with tree plantings and heavily seeding treated areas is crucial to minimize the introduction of other noxious weeds to the treatment sites.

Grandy Creek Knotweed

From June 15, 2018 to September 28, 2018 for a total of 11 days, Skagit County Noxious Weed Control Board (SCNWCN) employees, with assistance from Washington Conservation Corps (WCC) crew members, surveyed approximately 6.1 river miles and 320 acres of riparian and upland habitats of the Grandy Creek watershed. This effort resulted in the treatment of 0.67 solid acres of knotweed; this is a decrease of 78% from the treated acres in 2017. The efforts to control knotweed within the Grandy Creek watershed allowed SCNWCN employees to assist 21 different landowners. In 2018 there was a 78% reduction in the treated acres and a 65% reduction in total spray solution from 2017. With advancement in the use of iForm and Collector it is much easier for crews to now track what had been found in previous years. Multiple treatment efforts during the same season would eliminate the possibility of missed knotweed plants. Lastly, successfully treated knotweed stands need to be replaced with native vegetation. Often, many of the dead stands of knotweed were being invaded by other invasive plants such as common tansy (*Tanacetum vulgare*), Canada thistle (*Cirsium arvense*), butterfly bush (*Buddleja davidii*), and herb-Robert (*Geranium robertianum*).

Skagit County Spartina Program

SCNWCN crew members surveyed for and treated *S. anglica* from June 4, 2018 to October 12, 2018 for a total of 48 days. During this time, SCNWCN crew members surveyed approximately 1350 acres of salt marsh, mudflat, and estuarine habitat in Skagit County which resulted in the treatment of 0.035 solid acres of *S. anglica*. In 2018 more effort was put towards surveying the thick rush and cattail stands in Skagit Bay. This resulted in the discovery of many large clones. Although these are very difficult areas to survey efforts must continue as these hidden plants were a seed source for the surrounding areas. The infestation near the mouth of the Samish River is proof that all potential *S. anglica* habitats must be surveyed every few years. If possible, more second passes should be conducted throughout high concentration areas, especially if those areas are surveyed and treated before seed heads have sprouted. Although only one plant was found on the sand islands of the



Fig. 3. Map of Skagit County showing the extensive surveys conducted and the treatment locations of *S. anglica*. Red lines indicate survey locations conducted by SCNWCN crew members and assisting entities while purple dots indicate locations of found and treated *S. anglica*.

north fork of the Skagit river, this area should be surveyed for the next couple of years because the area is changing with the changing of the river course and as *S. anglica* favorable habitat disappears in one area, new areas will become favorable to the plant. Overall SCNWCN was able to assist our grant partners for a total of 13 days while doing airboat and marsh master treatments and surveys at Port Susan, Lake Handcock, South Skagit Bay, Ebay Slough, Steamboat Slough, Stanwood, and Camano Island. Coordinating with the Swinomish Tribal Nation, Snohomish County Noxious Weed Control Board, Island County Noxious Weed Control Board, San Juan County Noxious Weed Control Board, Whatcom County Noxious Weed Control Board, Washington State Department of Agriculture, Washington State Department of Fish and Wildlife, Washington Conservation Corps, and the Padilla Bay National Estuarine Research Reserve is extremely important for eradicating *S. anglica* from Skagit County and the greater Puget Sound. Overall the number of plants and size of clones is decreasing within Skagit County. With focused efforts and more cooperative events, the concentrations of *S. anglica* should continue to decline and the goal of eradication can be achieved.

Treatments & Cooperative Efforts

Along with our grant funded programs we also worked with Washington State Department of Agriculture (WSDA), and various partners in the Skagit Cooperative Weed Management Area Group (CWMA) to complete the Skagit River noxious weed survey. Over a period of five days and as a continuation of the 2017 survey we surveyed the Skagit River from Lyman to the Confluence of the Sauk River. After surveying the new proposed project areas our CWMA is planning on extending our Knotweed treatment from the Sauk River to Carpenter Creek. In coordination with Skagit land trust, Skagit Fisheries Enhancement Group, Sauk Suattle Tribe and the US Forest Service the SCNWCB will plan to treat knotweed on Skagit County parcels within the new treatment zone in 2019. We also assisted and coordinated with the Swinomish Tribal Community and WCC to survey and treat Purple Loosestrife in Dunlop Bay. In Padilla Bay area we worked with Dike District 12 and Skagit County Parks to control a large population of Poison Hemlock on the Padilla Bay Shore Trail. We have seen a large increase in Perennial Pepperweed in the Padilla bay area and are currently coordinating with the Swinomish Tribal Community and Padilla Bay Research Station to control the populations in 2019. We continue to work on a garlic mustard populations near day creek and will continue to monitor the area as it is the only known population of garlic mustard. Additional to projects and cooperative efforts with local agencies we also consulted with 33 private landowners to help control Canada Thistle (*Cirsium arvense*), Bull Thistle (*Cirsium vulgare*), Tansy Ragwort (*Jacobaea vulgaris*), Japanese Knotweed (*Fallopia japonica*), Giant Knotweed (*Fallopia sachalinensis*), Himalayan Blackberries (*Rubus armeniacus*), Evergreen Blackberry (*Rubus laciniatus*), Poison Hemlock (*Conium maculatum*), Scotch Broom (*Cytisus scoparius*), Giant Hogweed (*Heracleum mantegazzianum*), Common Teasel (*Dipsacus fullonum*), leafy Spurge (*Euphorbia esula*), Dalmatian Toadflax (*Linaria dalmatica*), Garlic Mustard (*Alliaria petiolata*), Gorse (*Ulex europaeus*), Hedge Bindweed (*Calystegia sepium*), reed canary grass (*Phalaris arundinacea*), purple nightshade (*Solanum xanti*). Additional to our Noxious weed Consultations we also had one Weed Free Forage - Washington Wilderness Hay and Mulch (WWHAM) Crop Field Inspection and three public health consultations.

Education and Outreach

In 2018 we were able to increase the amount of education events we participate in as well. In 2018 we participated and tabled at the Skagit River Salmon Festival, Washington State University (WSU) forestry Class, WSU livestock advisory, Skagit County Fair, Whatcom County IPC EDRR training, Mount Vernon Science Night, Skagit Fisheries Enhancement Group (SFEG) Earth day, WSU Backyard Conservation Noxious Weed Session, Skagit Home and Garden Show, North Cascades Institute Youth Ambassadors at Concrete Middle School, Washington State Weed Conference, Washington State Weed Coordinators Conference, and the Skagit Farmers Supply Annual Recertification Meeting. Also in 2018 we continued our annual training classes for some of our seasonal crews that not only work for our grant programs but also assist other nonprofit and government entities to manage and monitor their properties for noxious weeds in Skagit County. Over three different training days we were able to work with the WCC to train their crews in early spring to prepare them for noxious weed identification. We also worked with Snohomish County, Island County, and Washington State Department of Fish and Wildlife to train our selected crews for Spartina surveying, treatment and equipment safety.

River Improvement Fund 110 Financial Comparative Financial Information

The River Improvement program has several functions. It also provides funding for cost-sharing with United States Geological Survey (USGS) for maintenance of and communication with river gauging stations. As part of the County's responsibility for flood awareness and response, it provides public information to increase public awareness of flood risks and supports and helps coordinate flood control activities with local decision makers and other stakeholders. The River Improvement program also maintains County levees in the PL84-99 program.

River Improvement Fund Fund 110

Revenues	2018
Taxes/Assessments	-
Grants	227,878
Charges for Services	
Miscellaneous	19
Other	47,413
Total Revenue	275,310
Expenditures	2018
Salaries and Wages	24,282
Benefits	12,100
Supplies	41
Other Services and Charges	216,786
Intergovernmental Services	29,611
Capital Outlays	
Interfund Payment for Services	
Total Expenditures	282,820
Net Increase/Decrease in Fund Balance	(7,510)

Lake Management Districts Funds 141-144

The purpose of the Lake Management Districts is to manage aquatic plants, particularly invasive plants, in cooperation with the lake communities. The districts are authorized for a term of ten years. Funding is through Lake Management Property Tax Assessments.

Lake Management District Fund 141 Revenue and Expenditures

Revenues	2018
Taxes/Assessments	61,000
Grants	
Charges for Services	
Miscellaneous	
Other	
Total Revenue	61,000

Expenditures	2017
Salaries and Wages	2,386
Benefits	1,139
Supplies	
Other Services and Charges	44,800
Intergovernmental Services	
Capital Outlays	
Interfund Payment for Services	
Total Expenditures	48,325

Net Increase/Decrease in Fund
Balance 12,675

Lake Management District Fund 142 Revenue and Expenditures

Revenues	2018
Taxes/Assessments	14,520
Grants	
Charges for Services	
Miscellaneous	
Other	
Total Revenue	14,520

Expenditures	2017
Salaries and Wages	4,941
Benefits	2,196
Supplies	
Other Services and Charges	13,311
Intergovernmental Services	
Capital Outlays	
Interfund Payment for Services	
Total Expenditures	20,448

Net Increase/Decrease in Fund
Balance (5,928)

Lake Management District Fund 143 Revenue and Expenditures

Revenues	2018
Taxes/Assessments	28,519
Grants	
Charges for Services	
Miscellaneous	
Other	
Total Revenue	28,519

Expenditures	2018
Salaries and Wages	1,588
Benefits	790
Supplies	
Other Services and Charges	36,280
Intergovernmental Services	
Capital Outlays	
Interfund Payment for Services	
Total Expenditures	38,658

Net Increase/Decrease in Fund
Balance (10,139)

Lake Management District Fund 144 Revenue and Expenditures

Revenues	2018
Taxes/Assessments	20,670
Grants	
Charges for Services	
Miscellaneous	
Other	
Total Revenue	20,670

Expenditures	2018
Salaries and Wages	2,872
Benefits	1,384
Supplies	
Other Services and Charges	14,370
Intergovernmental Services	
Capital Outlays	
Interfund Payment for Services	
Total Expenditures	18,626

Net Increase/Decrease in Fund
Balance 2,044

Skagit County Public Works

Active Grants

December 2018

Skagit County Public Works Department has 34 active grants as of December 2018.

The total amount of active grants is \$27,726,259. This amount does not include grants that have not received final approvals including the State CRAB Ferry Capital improvement grant of \$7.5 million.

County match requirements vary from 0% to 20% depending on the source of the funding.

Skagit County partners with multiple governmental, tribal, and private agencies to provide assistance in meeting mutual public program goals.

Some of these partnerships include:

- US Environmental Protection Agency

- US Department of Commerce NOAA

- Washington State Departments of Health, Ecology, Transportation, and County Road Administration Board

- The Cities of Anacortes, Burlington, and Mount Vernon

- The Upper Skagit Indian Tribe

- Skagit Conservation District

Clean Water Fund Grants

Maddox Creek Culvert Removal and Stream Enhancement	450,647
State Dept of Ecology	
2018-2021	
Martin Slough CREP	6,519
Federal Dept of Agriculture/State RCO	
2004-2019	
Martin Slough Riparian Restoration	166,231
Federal Dept Commerce NOAA	
2014-2019	
Puget Sound Partnership	32,572
State Dept of Ecology	
2017-2018	
Puget Sound Partnership	41,428
Federal Environmental Protection Agency	
2017-2018	
Puget Sound Partnership Northwest Straights MRC	75,000
Federal Environmental Protection Agency	
2018-2019	
State Dept of Ecology	
2018-2019	
Puget Sound Pollution Identification and Correctio Program	386,800
Federal Environmental Protection Agency	
2017-2019	
Regional Conservation Partnership Program	100,000
State Recreation and Conservation Office	
2017-2019	
South Fork Delta Final Design	200,000
State Recreation and Conservation Office	
2018-2019	

County Roads Grants

BNOP Federal Hwy Bridge Program and Connecting Washington	14,668,613
Federal Department of Transportation	
2013-2020	
Bow Hill Reconstruction	2,306,700
County Road Administration Board	
2013-2019	
County Road Arterial Preservation	532,246
County Road Administration Board	
Annual	
DOT Federal Highway Admin BNOP Project (Upper Skagit Tribe Pass Through)	900,000
Federal Department of Transportation	
2017-2019	
Fiscal Funding Year 2014 Bridge Selection Friday Creek Bridge	357,200
Federal Department of Transportation	
2015-2019	
Fiscal Funding Year 2014 Bridge Selection Lower Finney Creek Bridge	356,308
Federal Department of Transportation	
2015-2019	
Fiscal Funding Year 2014 Bridge Selection Samish River Bridge	821,200
Federal Department of Transportation	
2015-2019	
Francis Road Reconstruction	900,000
State RATA funds	
2018-2020	
Highway Safety Improvement Program Cook Road Signal Advance Warning	58,400
Federal Department of Transportation	
2015-2017	
Josh Wilson Phase 1	87,221
County Road Administration Board	
2014-2020	
Martin Ranch Culvert Fish Passage	221,000
Federal Department of Commerce NOAA	
2018-2019	
Surface Transportation Block Grant Centennial Trail	314,750
Federal Department of Transportation	
2014-2018	
Surface Transportation Program Block Grant Francis Road Reconstruction Section 3	395,888
Federal Department of Transportation	
2018-2025	
Surface Transportation Rural Funds Josh Wilson Phase 1	284,135
Federal Department of Transportation	
2014-2020	
Surface Transportation Rural Roads Bow Hill Reconstruction	216,135
Federal Department of Transportation	
2013-2018	
Title I Federal Forest Yield	227,118
Federal Department of Agriculture	
Annual	
WSDOT Francis Road Reconstruction Section 1	248,270
Federal Department of Transportation	
2018-2020	
WSDOT Prevedal Road Repairs	298,000
Federal Department of Transportation	
2018-2020	

Drainage Utility Fund

Lyman Property Acquisition	1,008,807
Federal Emergency Management Agency	860,557
2018 to Completion	
State Military Department	148,250
2018 to Completion	
Voluntary Stewardship Program	220,000
State Conservation Commission	
2017-2019	

Noxious Weeds

Knotweed Control	27,000
State Dept of Agriculture	
2017-2019	
Spartina Eradication	43,054
State Dept of Agriculture	
2017-2019	

River Improvement Fund

Skagit River Bridge Modification	1,500,000
FHWA Federal Highways	
2007-Completion	

Solid Waste Fund

Remedial Action Grants Waste 2 Resources	55,000
State Dept of Ecology	
2015-2019	
Waste 2 Resources Coordinated Prevention Grant Program	220,017
State Dept of Ecology	
2017-2019	

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Skagit County Public Works
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Mount Vernon, WA 98273
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