



FY 2019 (7/1/18 – 6/30/19) Annual Work Plan Whatcom Conservation District (Adopted May 23, 2018)

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Mission

“The Whatcom Conservation District assists land managers with their conservation choices.”

Vision

- *“Whatcom County shall have healthy soils, water, and air while maintaining sustainable, profitable and productive agriculture, fisheries, and other natural resource-based industries.*
- *The District shall be acknowledged as the independent and trusted agency of choice for leadership in the conservation, protection, and stewardship of natural resources.”*

Natural Resource Priorities

Water Quality:

Good news – During the previous fiscal year (2017-18), 129 acres of commercial shellfish harvest area at the mouth of Terrell Creek (Birch Bay) were upgraded from Prohibited to Approved in mid-January. Water quality over all stations of the Portage Bay shellfish harvest area also improved from the year before. All are well within classification standards during periods open for harvest. For those areas closed during the spring season, the State Dept. of Health with the assistance of the Lummi Nation began a special study to evaluate whether those areas can be upgraded for harvest year around. Of the freshwater sampling stations in the Nooksack River Watershed, 85% improved in 2017. For groundwater, the overall trend of well data from 2010 (31 wells) to 2016 (20 wells) monitored by Ecology has dropped and remains below 10 ppm nitrate. The District’s programs of technical and financial assistance to landowners to develop and implement farms plans to manage nutrients and its stormwater education programs were credited for significantly contributing to improvements in surface and ground water quality.

More work to do – Two shellfish monitoring stations, one in Drayton Harbor and one in Lummi Bay were downgraded to threatened status. This means that though water monitoring passes the water quality standards, bacteria levels are near the upper limit. In addition, bacterial counts in the Fishtrap creek often increase as water moves through the City of Lynden. With regard to groundwater quality, some individual wells continue to be of concern. Of the 2016 groundwater monitoring data, five of 20 wells were above 10-ppm nitrate standard and trending up. Four additional wells were barely below 10 ppm nitrate. Phosphorous levels in Lake Whatcom are approaching levels that will induce harmful algal blooms. Algal blooms would result in increased water treatment costs and negatively affect the lake’s scenic values.

Whatcom County surface water and critical aquifer recharge areas are vulnerable to contamination due to our high rainfall, drainage systems and activities that include the application of fertilizers and manures to crop and grazing lands. Activities that the District should pursue to address this natural resource priority include:

- Assisting livestock operators to capture, store, and apply the manure generated by their animals.
 - Providing guidance to berry and crop farmers in the proper utilization of manure.
 - Provide information and educational opportunities to landowners to assist in adoption of conservation practices protective of water quality.
 - Participating in Whatcom Clean Water Program and Whatcom County PIC Program.
 - Providing technical assistance to the Portage Bay and Drayton Harbor Shellfish Protection Districts and Watershed Improvement Districts.
 - Assisting residential landowners around Lake Whatcom to install custom-engineered natural landscape features to reduce phosphorous pollution.
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- Assisting the City of Lynden in education and outreach to reduce bacterial contamination of Fishtrap Creek.
- Engaging schools through the watershed explorer and wheat weeks.
- Assisting the Lynden Fairgrounds install innovative stormwater retention projects that reduce pollution from the site and demonstrate alternatives to City and County residents who use the grounds.
- Supporting City and County efforts in education regarding impacts of pet waste and on-site septic systems management.

This is a regional resource priority see: Puget Sound 2016-18 Action Agenda

- Ecosystem Strategy 11 Prevent, reduce, and control agricultural runoff.
- Shellfish Strategic Initiative, Sub-strategy 11.1 Target voluntary and incentive-based programs that help working farms contribute to Puget Sound recovery & Sub-strategy 19.1 Improve water quality to prevent downgrade and achieve upgrades of important current tribal, commercial, and recreational shellfish harvesting areas.

Other entities engaged in addressing this resource concern include Washington Departments of Ecology, Agriculture and Health, Whatcom County, USDA Natural Resources Conservation Service, US Environmental Protection Agency, Lummi Nation and Nooksack Tribe of Indians.

Conserving Whatcom County Working Lands (farms & forestry): Green Infrastructure is the County's natural life-support system that is composed of working farmlands, ranchlands, forestlands, open spaces, wildlife corridors, and other sensitive natural areas. Just as we must address haphazard development, we must also address haphazard conservation. Conservation activities that are reactive, site-specific, narrowly focused, or not well integrated with other efforts will not be successful. Just as we need smart growth to strategically direct and influence the patterns of land development, we need to strategically direct our County's conservation efforts. Green infrastructure provides a solution that ensures environmental protection and a higher quality of life within communities, as well as regulatory predictability for landowners and investors. Activities that the District should pursue to address this natural resource priority include:

- Offering conservation opportunities so that there will be land and water for farmers both now and into the future.
- Supporting the County's creation and implementation of effective programs for the purchase or transfer of development rights within the boundaries of Whatcom County.
- Maintaining the farm plan alternative to standard buffers in the County's Critical Areas Ordinance.
- Supporting the County to develop and integrate a landscape plan into its land use plans with the objectives of protecting working lands, maintaining ecological function and habitat connectivity, and creating opportunities for farmers and landowners to sell environmental services.
- Educating youth and adults as to the vital importance of our working lands.

This is a regional resource priority see:

- Puget Sound 2016-18 Action Agenda, Ecosystem Strategy 3.2 Retain economically viable working forests and farms.

Other entities engaged in addressing this resource concern: Whatcom County, Whatcom Family Farmers, Ag District Coalition, Whatcom Land Trust.

Fish & Wildlife Habitat: Lowland Whatcom County has been highly modified through clearing, ditching, draining, dredging, tiling, filling and grading in order to make its lands productive for agriculture. The tributaries once produced large populations of salmon and trout. Fish passage blockages, lack of functioning riparian zones and channel complexity are common limiting factors. At the same time, farmers need drainage in order to productively farm. Activities that the District should pursue to address this natural resource priority include:

- Delivering an effective program of voluntary restoration of riparian and wetland areas to advance locally developed plans that recover fish without eroding Whatcom's base of prime farmland.
 - Offering landowners a voluntary program to improve instream fish habitat and fish passage without adverse impacts to drainage or flooding; and
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- Working with Whatcom County, Cities, Special Districts, Tribes, and other stakeholders to restore natural ecosystem processes while ensuring that needs of agriculture are also met.

This is a regional resource priority:

- PS 2016-18 Action Agenda, Strategy 2.2, Implement and maintain priority freshwater and terrestrial restoration projects.

Other entities engaged in addressing this resource concern: Whatcom County, Nooksack Salmon Enhancement Association, and Whatcom Land Trust.

Water Quantity: There is growing concern that there is too little water in the lower tributaries to the Nooksack River, Dakota, California and Terrell Creeks to meet the needs of our diverse community. Too much water is also a problem seasonally. Activities that the District should pursue to address this natural resource priority include:

- Assist Drainage and Watershed Improvement Districts and landowners in developing and implementing maintenance plans that provide drainage for crops yet support the needs of fish.
- Encourage and support the widespread adoption of water conservation practices through outreach, education, technical and financial assistance.
- Re-establish important watershed processes through the construction, enhancement, and/or protection of wetlands, groundwater recharge areas, riparian areas, and floodplain areas.
- Work with homeowners and businesses to adopt low impact development practices.
- Support the completion of water quantity studies to eliminate the uncertainty around what is actually available for beneficial use.
- Support county-wide water planning (WRIA 1) efforts to promote water conservation by coordinating public information efforts and related activities
- Providing technical and cost share assistance to
 - Implement water conservation and development practices.
 - Landowners for the installation and maintenance of practices along eligible watercourses and wetlands.

This is a State and Regional priority see:

- 2018 ESSB 6091 Streamflow Restoration Legislation (Hirst)
- Puget Sound 2016-18 Action Agenda Strategy 7 Protect and conserve freshwater resources to increase and sustain water availability for instream flows
- Preparing for a Changing Climate: Washington State's Integrated Climate Response Strategy (April 2012)

Other entities engaged in addressing this resource concern: WRIA 1 Planning Unit, Whatcom County, City of Bellingham, PUD #1, Washington State Department of Ecology, Lummi Nation, and Nooksack Tribe of Indians.

Program Areas: *The District assembled five teams to deliver four major program areas: I. Water Quality, II. Water Quantity/Habitat, III. Community Viability, Sustainability & Resiliency and IV. District Operations.*

WATER QUALITY

Goal(s): Reduce the contributions of

- Bacterial pollution to the Nooksack River and its lowland tributaries; California, Dakota and Terrell Creeks and Sumas River.
 - Nutrients from all agricultural operations to surface and groundwater.
 - Phosphorous into Lake Whatcom from residential stormwater.
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Natural Resource Measurable Result Objectives:

- Increase the number of freshwater sampling stations showing reductions in bacterial pollution as monitored by Whatcom County.
- Reduce the number of wells showing nitrate levels at or above the drinking water standard as monitored by the Department of Ecology.
- Reduce the amount of phosphorous entering Lake Whatcom from residential storm water as calculated by the design performance of installations.
- Reduce nutrients entering Bellingham Bay via the Nooksack River and its tributaries as monitored by the Department of Ecology.

Programmatic Measurable Result Objectives:

- Update or refine the District's program technical and financial assistance to commercial farming operations that result in the implementation of conservation practices that protect and improve water quality.
- Enter into an agreement with Whatcom County Public Works and Planning & Development Services to deliver a program of technical and cost share assistance to non-commercial livestock operations that result in the implementation of best management practices that protect sensitive areas and improve water quality.
- Participate in meetings with agencies, industry and environmental groups on policies and regulatory programs that are meant to protect the environment, to not only ensure program effectiveness, practical solutions but also avoid undue or unintended negative impacts to producers, farmers and ranchers.

Commercial Livestock Operations

- Provide technical assistance to 60 operations.
- Conduct risk assessments for and provide practice recommendations to 30 operations. (Steps 1-5 of NRCS planning process)
- Develop 10 custom Livestock Nutrient Management Plans – (Complete farm plan through Board approval.)
- Assist 20 operators to apply for cost-share programs to install needed conservation practices.
- Provide 50 engineering designs and specifications.

Non-Commercial Livestock Operations

- Provide technical assistance to by conducting risk assessments and recommendations to 100 operations.
- Conduct risk assessments and provide recommendations to 15 operations.
- Develop standardized conservation plans for 25 non/ small commercial livestock operations and/or crop producers.

Research and Conservation Effectiveness Monitoring

- Continue work on all projects (Edge-of-Field, ZAPs, Phylochip, CIG-MSA) and data assessment (Water Quality).
- Deliver results to local landowners.
- Continue to pursue funding opportunities to address local water quality questions and issues.

WATER QUALITY	Target Dates	Team/Person Responsible	Time (Days) Required	Estimated Funding
Commercial Livestock Operations				
Provide Technical Assistance	On going	Livestock	56	\$ 26,449
Conduct Risk Assessments	On going	Livestock	63	\$ 22,060



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	Target Dates	Team/Person Responsible	Time (Days) Required	Estimated Funding
WATER QUALITY				
Develop/Update Custom Conservation Plans	On going	Livestock	207	\$ 72,007
Implement Custom Conservation Plans	On going	Livestock	34	\$ 12,472
Non-Commercial				
Provide Technical Assistance	On going	Livestock	38	\$ 13,682
Conduct Risk Assessments	On going	Livestock	38	\$ 12,355
Develop Standard Farm Conservation Plans	On going	Livestock	221	\$ 67,052
Implement Standard Farm Conservation Plans	On going	Livestock	34	\$ 10,261
Cooperator Follow-up and Assessment	On going	Livestock	20	\$ 6,243
Engineering				
NRCS Programs Implementation	On going	Engineering	124	\$ 71,240
Structural Practice Planning & Implementation	On going	Engineering	68	\$ 40,295
Advanced Waste Treatment Practices (RCPP)	On going	Engineering	23	\$ 13,432
Research & Conservation Practice Effectiveness Monitoring				
Edge of Field Program	On going	Research	149	\$ 62,704
ZAP's Project	On going	Research	77	\$ 27,155
Water Quality Data Coordination	On going	Research	209	\$ 74,750
Discovery Farms Program	On going	Research	32	\$ 12,056
Coordination of research, monitoring, and modeling projects and activities	On going	Research	45	\$ 19,028
NWQI - Ten Mile	Summer/Fall	Research	45	\$ 19,065
CIG -Manure Spreading Advisory	On going	Research	29	\$ 13,370
General				
Manage databases	On going	Livestock	7	\$ 2,444
Work with Agencies & Stakeholders	On going	All	32	\$ 13,933
Coordinate Lake Whatcom HIP Program	On going	Education & Habitat	227	\$ 78,736
Implement Cost-share Program	On going	Livestock & Engineering	9	\$ 3,159
Non-livestock Conservation Practice Planning and Implementation	On going	Livestock & Engineering	5	\$ 2,686
TOTALS:			1789	\$ 696,634



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Funding Source(s): Washington State Conservation Commission, US Environmental Protection Agency, and Natural Resources Conservation Service, Whatcom County, Washington Departments of Ecology, Health and Agriculture.

Water Quantity/Habitat

Goal(s): To have water of sufficient quantity to meet the needs of current and future generations, specifically including water for agriculture, and healthy and harvestable salmon, steelhead and trout populations.

Natural Resource Measurable Result Objective:

- *Enhance fish habitat while maintaining drainage/flood protection for farm fields.*
- *Improve hydrological conditions of the lower watersheds to achieve goals identified in Whatcom County Basin Plans.*

Programmatic Measurable Result Objectives:

- Implement projects with partner assistance to improve instream fish habitat. Develop and plant 24 CREP projects on 72 acres
- Maintain 131 CREP projects on 981 acres
- Remove eight fish passage barriers and replace with bridges.
- Develop alternatives for maintaining canopies of riparian forest and hedgerow buffers to prevent encroachment on farmland and impairment of drainage.
- Assist Whatcom County to identify potential water conservation measures for rural and agricultural users appropriate for the Basin Plans.

WATER QUANTITY & HABITAT ENHANCEMENT					
Conservation Reserve Enhancement Program					
Plan and contract new projects and cooperators	Winter/Spring	Habitat	209	\$	87,680
Plan and contract re-enrollments	Winter/Spring	Habitat	52	\$	20,723
Develop and implement project	Winter/Spring	Habitat	198	\$	81,776
Monitor and maintain projects	Summer/Fall	Habitat	54	\$	23,369
Effectively administer CREP cost-share and maintenance reimbursement program	On going	Habitat	29	\$	10,732
NRCS Funded Habitat Projects					
Fish Passage Barrier Removal	On going	Habitat	68	\$	33,604
Riparian Restoration	On going	Habitat	11	\$	5,601
General					
Work with Agencies & Stakeholders	On going	Habitat	5	\$	2,240
Manage cooperator databases	On going	Habitat	14	\$	5,649
Create/Update Plan GIS Shape files	On going	Habitat	18	\$	7,381
TOTALS:			657	\$	278,756



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Funding Source(s): Natural Resources Conservation Service, Whatcom County, Washington Conservation Commission, Environmental Protection Agency, Washington Department of Ecology.

Community Viability, Sustainability & Resiliency

Goal(s):

- Whatcom County residents will have a better appreciation for the value of natural resource-based industries such that they support the protection of working lands.
- More farmers and ranchers will exhibit good stewardship in protecting and enhancing water quality, quantity and habitat.
- Whatcom County residents will have an ecological understanding and place-based connection to the land, resources and economy promoting responsible stewardship and sustainable land management.
- Rural residents will be educated and prepared for fires and floods.
- Teach local citizens the value of local food sources and their contribution to a healthy environment.
- Support and educate the public about Firewise program and effectiveness.

District Program Measurable Result Objective:

- Greater than 2000 residents of Whatcom County and regional leaders will be reached by district programming through community outreach, educational programming, events, tours or sustained engagement.

Programmatic Measurable Result Objectives:

- *Promote conservation-wise stewardship practices to landowners, students and other public entities through various media (for e.g. bi-annual newsletter, Facebook, website...).*
 - *Provide at least two project tours for Agency representatives, dignitaries, etc. highlighting District conservation programs, practices to benefit the environment and natural resource-based industries.*
 - *Present at five public meetings, conferences, etc. (County Council, Ag Advisory Committee, Shellfish Protection, WWIN, WADE, City Councils, service clubs, etc.).*
 - *Recruit, train and support eight water quality sampling volunteers.*
 - *School-based Programing:*
 - *Provide (4) internships for an introduction to Conservation Districts Programs, Agricultural Best Practices, Social Science of Conservation, Agro Ecology and Involvement in Community Based Events to the urban centers.*
 - *Engage 10 elementary schools in conservation education programming including:*
 - *Support and train High School aged youth through Envirothon to explore current conservation issues, agricultural BMPs and work force development.*
 - *Work with elementary teachers and students on water quality and water conservation programming.*
 - *Recruit and assist with 5-6th grade Forest Tour.*
 - *Host 10 workshops and events on topics of small farm stewardship, water quality BMPs, backyard habitat and low impact development. Including:*
 - *Small Farm Expo, Farm Speaker Series, Manure Management Training and Plant Sale.*
 - *Connect with 2000+ rural and urban dwellers through a plant sale, workshops, tours, Fun Run and other events (e.g. County Fair, Youth Fair, Wings over Water, Country Living Expo, Oyster Fest, Flora Fair, Farm Speaker Series, Sustainable Connections, Envirothon, and 5th & 6th grades tour.*
 - *Coordinate with other organizations and agencies on natural resource education effort.*
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- Provide assistance to six special districts implementing conservation projects and landowner outreach.
- Task a District staff person(s) with developing recommendations for activities, budgets and sources of funding for establishing Firewise and Forestry programs.
- Task a District staff person(s) with developing recommendations for including soil health into conservation planning considerations.

COMMUNITY VIABILITY, SUSTAINABILITY & RESILIENCE

	On going	Coordinators	18	\$	7,512
Fostering Conservation Stewardship (supporting WID's, etc.)					
Publish Whatcom Conservation Newsletters	Annually	Education	29	\$	11,226
Update web content, maintain social media presence, and develop information videos	On going	Education & Coordinators	45	\$	18,644
Conduct Annual Native Plant Sale	Feb/Mar	Habitat	33	\$	13,111
Build Community Support (Run with the Chums, WOW, Earth Day, SeaFeast, volunteer programs, etc.)	On going	Education	147	\$	40,204
Conduct livestock stewardship workshops (Nutrient Management Trainings, Small Farm Expo, Speaker Series, etc.)	On going	Education & Livestock	109	\$	44,150
Internship Program	On going	Education	5	\$	1,844
Higher Education Opportunities (guest lectures, tours, Internships, Capstone, etc.)	On going	Education	27	\$	13,413
	On going	Education	84	\$	29,221
Youth Education (K-12 watershed education, Youth Fair, FFA, 4H, etc.)					

Public Safety

Flood Projection Projects (Assist Whatcom County Public Works)	On going	Habitat	20	\$	10,081
Drainage Enhancement Projects (Assist DIDs & WIDs)	On going	Habitat	20	\$	10,081
Climate Change Resiliency - adaption and mitigation	On going	All	5	\$	2,254
TOTALS:			542	\$	201,741

Funding Source(s): Whatcom County, Washington Conservation Commission, US Environmental Protection Agency

District Operations

Goal(s):

- Strengthen partnerships and relationships with NRCS and other agencies and groups.



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- Put the District on firm financial footing.
- Maintain the appropriate technical staff to accomplish District goals.
- Improve District Operations.

District Program Measurable Result Objective:

- *Support the District's Board so they may serve successfully as the grassroots representatives of landowners and public of Whatcom County by achieving widespread voluntary cooperation in natural resource conservation programs.*
- *Serve as the technical resource for landowners, public and agencies on conservation matters.*
- *Administer District operations to ensure compliance with its enabling statute RCW 89.08 et seq., as well as the policies and standards established by the Commission or other funding sources.*
- *Capture financial resources to implement Annual and Long Range Plans.*
- *Participate in the County's initiative to develop a comprehensive water resources management funding strategy.*
- *Maintain the appropriate technical staff to accomplish the District goals.*
- *Review and update the District Employee Manual and District policies.*

DISTRICT OPERATIONS

	On going	Board & E.D.	45	\$	26,194
Recruit/Support District Supervisors and Associates in implementing the District Charge.					
Run an efficient, economical election process that delivers good customer experience.	Jan - March	Administrative	23	\$	7,983
Administer Commission Special Project Grants	On going	Administrative	5	\$	1,597
Support Conservation Technical Development	On going	Research	68	\$	31,145
General Technical Assistance to Agencies, Public and Landowners not addressed through other programs.	On going	Board & E.D.	56	\$	32,742
	On going	E.D. & Coordinators, Administrative	369	\$	117,349
Administer Programs/Grants consistent with prescribed management standards	On going	E.D. & Coordinators	41	\$	20,674
Pursue and obtain funding to implement District Annual and Long Range Plans	On going	E.D. & Administrative	7	\$	2,395
Provide the professional development, training, equipment and support to District staff necessary to successfully accomplish their respective program responsibilities					
Ensure Political Support for District Programs (updates, tours, presentations to City, County, State and Federal Representatives)	On going	E.D. & Coordinators	23	\$	11,773
TOTAL:			635	\$	251,852

Funding Source(s): All Grants, Discretionary Funds



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FY17 Desired Level of Staffing and Funding: (budget for FY 2019 – 7/1/18 – 6/30/19)

All Programs & Operations	Full-time Equivalents	Estimated Funding
Water Quality	8.0	\$ 696,634
Water Quantity/Habitat Enhancement	2.9	\$ 278,756
Community Viability, Sustainability & Resilience	2.4	\$ 201,741
District Operations	<u>2.8</u>	<u>\$ 251,852</u>
TOTAL:	16	\$ 1,428,982
Overhead (25%)		<u>\$ 357,246</u>
		\$ 1,786,228