Kate Brown, Governor

OREGON WATERSHED ENHANCEMENT BOARD

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MEMORANDUM

TO: Legislative Fiscal Office: Paul Siebert

FROM: Meta Loftsgaarden, Executive Director

DATE: March 07, 2019

SUBJECT: **OWEB - Joint Ways and Means Presentation Package**

As a part of the Oregon Watershed Enhancement Board's budget presentation, attached are a number of written documents. In addition to our budget presentation PowerPoint, we have attached appendices for those items referenced in the budget guidance, along with supplemental materials. Any items noted in budget guidance as required, but not relevant to our agency at this time, are noted below.

- Summary of Proposed Legislation and Budgetary Impact – See Appendix 1
- Agency Reduction Options – See Appendix 2
- Other Funds Ending Balance Form – See Appendix 3
- Wilson River and Fifteenmile Creek Fact Sheets from the Conservation Effectiveness Partnership – See Appendices 4 and 5
- Audit Findings during 2017-2019 Biennium – *Not applicable*
- Effects of Budget and/or Management Flexibility on Agency Operations – *Not applicable*
- Supervisory Span of Control – *Not applicable*
- Summary of Proposed Technology and Capital Construction Projects – *Not applicable*

APPENDICES

TABLE OF CONTENTS

Summary of proposed legislation affecting agency operations, the status of the legislation, and the budgetary impact

- **HB 2086A** – Oregon Agricultural Heritage Program technical corrections bill (passed House, 2/14/19; public hearing in SENR, 3/7/19; no fiscal impact)
- **HB 2729** – Oregon Agricultural Heritage Program funding bill (public hearing in HALU, 2/12/19; fiscal impact = $738,652 GF for operations and $9.25M GF for grants)
- **HB 2020** – Oregon Climate Action Program (public hearings completed, budgetary impact TBD)
- **SB 812** – AOC funding for tidegate permitting (introduced, $250,000 GF for grants)
- **HB 2979** – AOC funding for tidegate technical assistance (introduced, budgetary impact TBD)
- **SB 627** – Transfer of some ODFW duties, functions and powers to OWEB (introduced, budgetary impact TBD)
- **HB 3229** – Klamath dam removal surcharge and creation of Klamath Fish Habitat Enhancement Fund (introduced, budgetary impact TBD)

Oregon Watershed Enhancement Board (OWEB)

2019 - 2021 Biennium

Detail of Reductions to 2019-21 Current Service Level Budget

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Priority (ranked most to least preferred)		**Agency**	**SCR or Activity Initials**	**Program Unit/Activity Description**	**GF**	**LF**	**OF**	**NL-OF**	**FF**	**NL FF**	**TOTAL FUNDS**	**Pos.**	**FTE**	**Used in Gov. Budget Yes / No**	**Impact of Reduction on Services and Outcomes**
Dept	**Prgm/ Div**														
				1st 5%:											
		69100	010	Ops/Exec Director 15% to PCSRF IDC		(60,994)			60,994		$ -			No	
		69100	010	Ops/Dep Director 20% to PCSRF IDC		(67,602)			67,602		$ -			No	
		69100	010	Ops/Bus Ops Mgr 15% to PCSRF IDC		(46,466)			46,466		$ -			No	
		69100	010	Ops/Grt Pgm Mgr 15% to PCSRF IDC		(46,466)			46,466		$ -			No	
		69100	010	Ops/OWRI Coord 15% to PCSRF IDC		(30,917)			30,917		$ -			No	
		69100	010	Ops/Grant Pmt Coord 15% to PCSRF IDC		(34,860)			34,860		$ -			No	
		69100	010	Ops/Mid Columbia RPR 10% to PCSRF IDC		(26,261)			26,261		$ -			No	
		69100	010	Ops/S. Coast RPR 15% to PCSRF IDC		(39,392)			39,392		$ -			No	
		69100	010	Ops/Other S&S (ORBITs 4650)		(26,308)					$ (26,308)			No	
		69100	010	Ops/Spec Pmts (ORBITs 6085)			(864)				$ (864)			No	
				2nd 5%											
		69100	010	Ops/Exec Director 15% to PCSRF IDC		(60,994)			60,994		$ -			No	
		69100	010	Ops/Dep Director 20% to PCSRF IDC		(67,602)			67,602		$ -			No	
		69100	010	Ops/Bus Ops Mgr 15% to PCSRF IDC		(46,466)			46,466		$ -			No	
		69100	010	Ops/Grt Pgm Mgr 15% to PCSRF IDC		(46,466)			46,466		$ -			No	
		69100	010	Ops/OWRI Coord 15% to PCSRF IDC		(30,917)			30,917		$ -			No	
		69100	010	Ops/Grant Pmt Coord 15% to PCSRF IDC		(34,860)			34,860		$ -			No	
		69100	010	Ops/Mid Columbia RPR 10% to PCSRF IDC		(26,261)			26,261		$ -			No	
		69100	010	Ops/S. Coast RPR 15% to PCSRF IDC		(39,392)			39,392		$ -			No	
		69100	010	Ops/Other S&S (ORBITs 4650)		(26,308)					$ (26,308)			No	
		69100	010	Ops/Spec Pmts (ORBITs 6085)			(864)				$ (864)			No	
				1st 5%:											
		69100	020	Grants/Special Payments (ORBITs 6085)		(3,754,448)	(82,636)				$ (3,837,084)			No	
				2nd 5%											
		69100	020	Grants/Special Payments (ORBITs 6085)		(3,754,448)	(82,636)				$ (3,837,084)			No	
											$ -				
					#	(8,267,428)	(167,000)	#	705,916	#	$ (7,728,512)	0	0.00		

Ops total (758,532) (1,728)

Target
D $ (7,728,512)

UPDATED **OTHER FUNDS ENDING BALANCES FOR THE 2017-19 & 2019-21 BIENNIA**

Agency: OWEB (69100)
Contact Person (Name & Phone #): Cindy Silbernagel 503.986.0188

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Other Fund Type	**Program Area (SCR)**	**Treasury Fund #/Name**	**Category/Description**	**Constitutional and/or Statutory reference**	**2017-19 Ending Balance In LAB**	**2017-19 Ending Balance Revised**	**2019-21 Ending Balance In CSL**	**2019-21 Ending Balance Revised**	**Comments**
Limited	010-Operations	01416-WS Cons Op's	Operations	ORS 541.945	32,850	26,340	5,853		Admin for Forest Health Collaborative grant work.
Limited	020-Grants	01416-WS Cons Op's	Grant Fund	ORS 541.945	0	223,000	200,000		ODFW Forest Collaboratives carryforward grants
Limited	020-Grants	01416-WS Cons Op's	Grant Fund	ORS 541.945	0		500,000		ODFW Forest Collaboratives revenue for 19-21 grants
Limited	020-Grants	01416-WS Cons Op's	Grant Fund	ORS 805.256	512,645	577,000	600,000		Salmon Plate carryforward grants

Objective: Provide updated Other Funds ending balance information for potential use in the development of the 2019-21 legislatively adopted budget.

Instructions:

Column (a): Select one of the following: Limited, Nonlimited, Capital Improvement, Capital Construction, Debt Service, or Debt Service Nonlimited.

Column (b): Select the appropriate Summary Cross Reference number and name from those included in the 2017-19 Legislatively Approved Budget. If this changed from previous structures, please note the change in Comments (Column (j)).

Column (c): Select the appropriate, statutorily established Treasury Fund name and account number where fund balance resides. If the official fund or account name is different than the commonly used reference, please include the working title of the fund or account in Column (j).

Column (d): Select one of the following: Operations, Trust Fund, Grant Fund, Investment Pool, Loan Program, or Other. If "Other", please specify. If "Operations", in Comments (Column (j)), specify the number of months the reserve covers, the methodology used to determine the reserve amount, and the minimum need for cash flow purposes.

Column (e): List the Constitutional, Federal, or Statutory references that establishes or limits the use of the funds.

Columns (f) and (h): Use the appropriate, audited amount from the 2017-19 Legislatively Approved Budget and the 2019-21 Current Service Level at the Agency Request Budget level.

Columns (g) and (i): Provide updated ending balances based on revised expenditure patterns or revenue trends. Do not include adjustments for reduction options that have been submitted unless the options have already been implemented as part of the 2017-19 General Fund approved budget or otherwise incorporated in the 2017-19 LAB. The revised column (i) can be used for the balances included in the Governor's budget if available at the time of submittal. Provide a description of revisions in Comments (Column (j)).

Column (j): **Please note any reasons for significant changes in balances previously reported during the 2017 session.**

Additional Materials: If the revised ending balances (Columns (g) or (i)) reflect a variance greater than 5% or $50,000 from the amounts included in the LAB (Columns (f) or (h)), attach supporting memo or spreadsheet to detail the revised forecast.

CONSERVATION effectiveness partnership

OREGON DEPARTMENT OF AGRICULTURE | OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY | USDA NATURAL RESOURCES CONSERVATION SERVICE, OREGON | OREGON WATERSHED ENHANCEMENT BOARD

CONSERVATION EFFECTIVENESS PARTNERSHIP

PULLING TOGETHER TO IMPROVE NATURAL RESOURCE INVESTMENTS IN OREGON

Dive In! Tillamook's Wilson River Remains Clean Enough for Swimming

Tillamook, Ore.—Water in the Wilson River continues to meet state water quality standards so that everyone can enjoy swimming or wading thanks to water quality improvement efforts and monitoring measures by cooperating public natural resource agencies, nonprofits and landowners.

The Wilson River is the largest watershed feeding Tillamook Bay, a major water body on Oregon's northern coast. While the upper portion of the river is flanked by forestland, the lower 8.5 miles flows through dairy land and is affected by development pressures from the City of Tillamook.

THE PROBLEM

In 1997, the lower 8.5-mile segment of the Wilson River had dangerously high bacteria levels, which moved the state's Department of Environmental Quality (DEQ) to place the river on the 303(d) list of impaired waterways. That listing meant that recreational use was not advised.

Oregon's recreational use water quality standard has two requirements: first, that for 30 days water does not show a median of 126 or more *E. coli* organisms per 100 milliliters (ml) of water and second, that no single sample exceed 406 *E. coli* organisms per 100 ml. Twenty years ago, the Wilson River exceeded those limits.

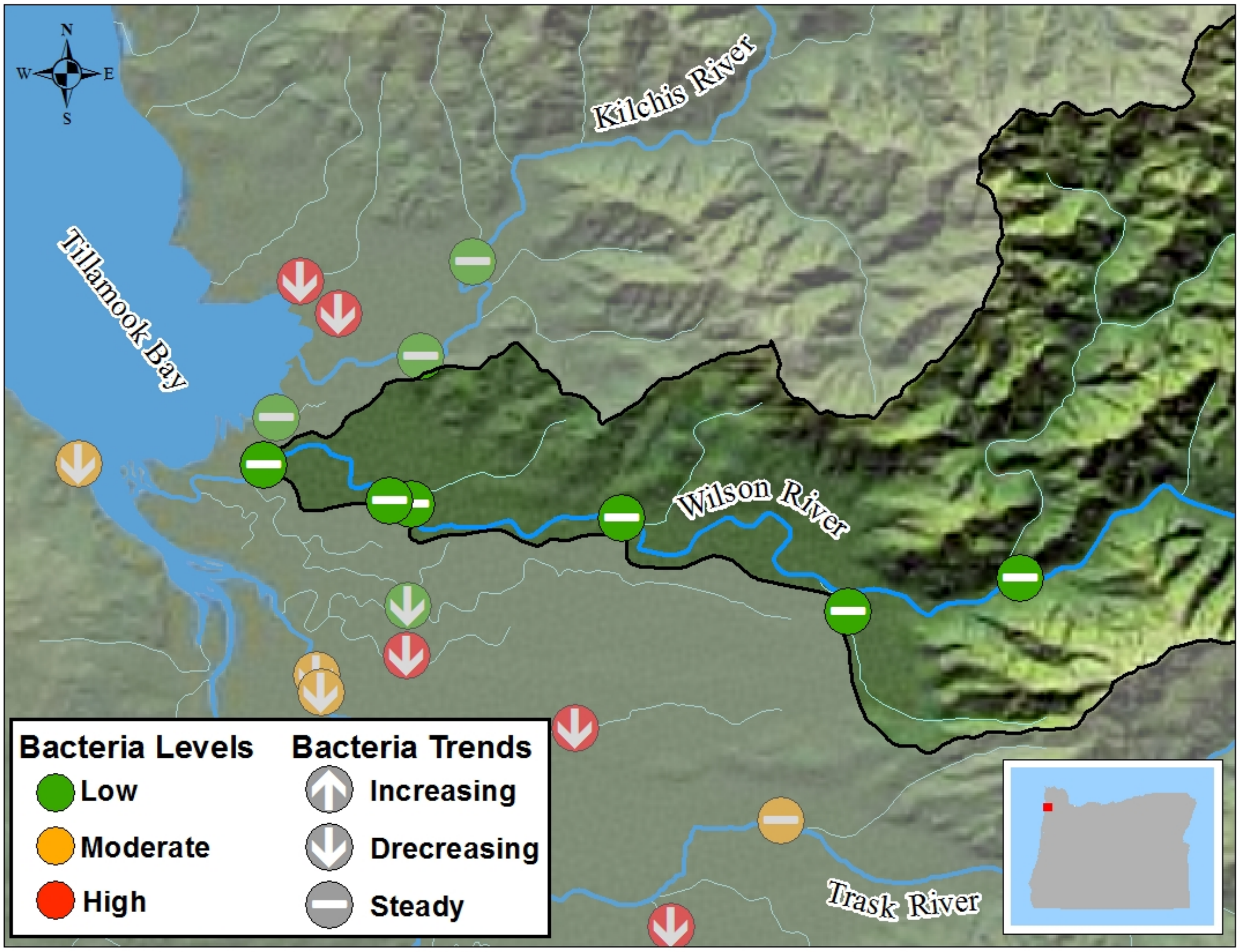
COLLABORATION AMONG AGRICULTURAL LANDOWNERS AND AGENCIES

Work began toward finding a solution to Wilson River's water woes by local citizens, dairy farms, nonprofits and natural resource agencies including the Tillamook Estuary Partnership (TEP), Oregon Watershed Enhancement Board (OWEB), Oregon State University, USDA Natural Resources Conservation Service (NRCS), USDA Farm Service Agency, DEQ, Oregon Department of Agriculture (ODA), Tillamook Bay Watershed Council, and the Tillamook Soil and Water Conservation District, which leveraged their investments in multiple conservation projects intended to improve the watershed's health. TEP and the Tillamook County Creamery Association (TCCA) continue to collect water quality data to monitor and measure the results of conservation efforts.

MULTI-PRONGED EFFORT

Partners have spent millions of dollars to restore and protect Tillamook Bay and its watershed, including the Kilchis, Trask, Tillamook, Miami, and Wilson Rivers. Projects funded in the Wilson River by the State of Oregon, including OWEB and DEQ grants, include over 20 riparian enhancements on private lands. These projects, implemented by local partners address planting trees and shrubs, livestock fencing, and invasive species removal. There has also been wetland restoration on the lower river and improvements to TCCA wastewater treatment system that also discharges to the river through a wetland and small tributary.

Farmers invested in additional infrastructure to properly store and handle animal waste, and developed nutrient management plans to guide operations. Following these plans reduces the potential for runoff to streams while still utilizing the valuable nutrient contents as fertilizer to grow forage.



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SCIENTIFIC MONITORING SHOWS SUCCESS

Scientific monitoring gives water quality managers a starting point and a progressive measurement of success or failure in water quality improvement efforts. In the Wilson River, monitoring of pollutants began in 1997. At that time, *E. coli* organisms were present at nearly triple the levels considered safe for swimming and wading. Through collaborative efforts and a data-driven approach, monitoring demonstrates over two decades of improvements.

Standardized equipment was used to measure water quality in the Wilson River over the long term. Six bacteria monitoring stations set up along the 8.5 mile stretch of Wilson River monitored the presence of *E. coli*. Data collected from those sites from 1997 through 2016 showed that bacteria levels have steadily declined since 1997 and now consistently meet the recreational use water quality standard.

Data are collected monthly by Tillamook County Creamery Association, and results are provided to the Tillamook Estuary Partnership and DEQ for analysis.

Monitoring has been in place long enough now for scientists to see patterns of improvement at the Wilson River. They predict with confidence that today's improved conditions will continue over the next two or three decades as landowners maintain their conservation efforts. And that can only be good news for the Wilson River and to those who depend on and enjoy using it.

MEASURING CONSERVATION IMPACT

The Conservation Effectiveness Partnership (CEP) is a collaboration of natural resource agencies including Oregon Watershed Enhancement Board, Oregon Departments of Environmental Quality and Agriculture, and the USDA Natural Resources Conservation Service. In addition, the Oregon Department of Fish and Wildlife provides guidance about fish habitat. CEP works together to understand, optimize and communicate the benefit of conservation investments throughout Oregon.

CONSERVATION effectiveness partnership

Oregon Department of Agriculture | Oregon Department of Environmental Quality | USDA Natural Resources Conservation Service, Oregon | Oregon Watershed Enhancement Board

CONSERVATION EFFECTIVENESS PARTNERSHIP

PULLING TOGETHER TO IMPROVE NATURAL RESOURCE INVESTMENTS IN OREGON

Fifteenmile Creek: A "Whole Watershed" Restoration Approach

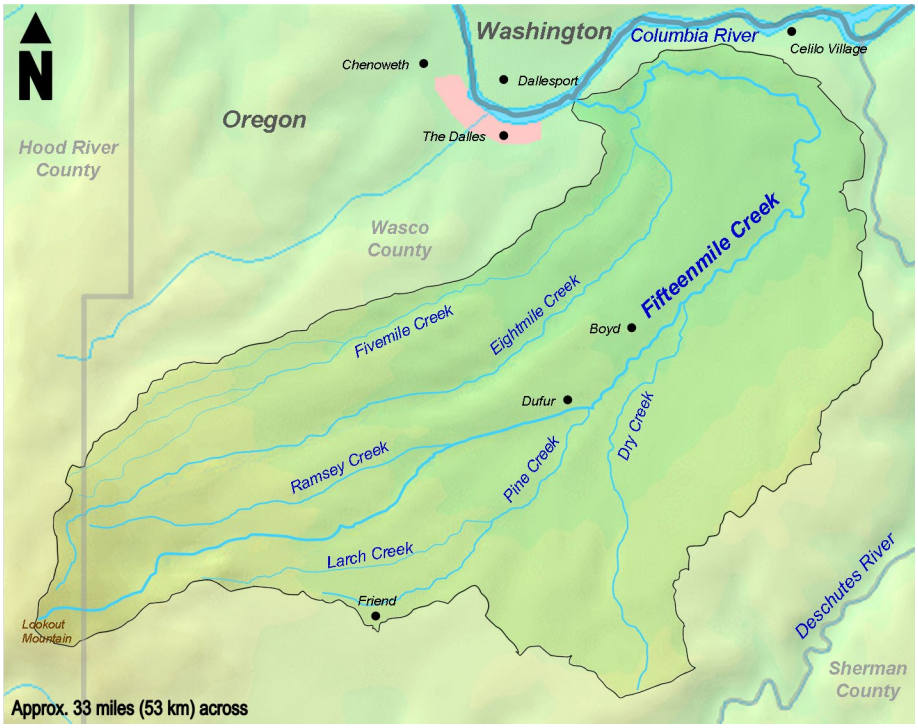
WASCO COUNTY, Ore.— Oregon's Fifteenmile Creek Watershed is making waves within the environmental community—it has become a successful business model for how to tackle conservation challenges using a "whole watershed" restoration approach. Since the early 1990's, this watershed has been undergoing a large-scale restoration focused on reducing erosion, building healthier soils, providing cleaner water and improving fish habitat. The key to success is the integrated coordination and leveraged partnerships between local, state, and federal agencies, partner groups, and private landowners. Thanks to more than 20 years of conservation efforts, landowners are seeing meaningful benefits—such as improved, healthy streamside vegetation and noticeably less soil erosion.

Photo courtesy of the Fifteenmile Watershed Council.

GEOGRAPHY

The Fifteenmile Creek Watershed is a 373-square-mile (238,720 acre) drainage area located mostly in northern Wasco County with some headwaters in Hood River County. Its major tributaries—Eightmile, Fivemile, and Ramsey creeks—originate in the Mt. Hood National Forest and generally flow northeast.

Published July 2015



Fifteenmile Creek discharges into the Columbia River just downstream of The Dalles Dam. The watershed is located in the rainshadow of the Cascade Range, with rainfall averages of 27 inches in the west and 12 inches in the east. The watershed is home to a variety of fish species, such as Pacific lamprey, resident redband trout, and coastal cutthroat trout. It's also occasionally used by spring Chinook and Coho salmon. About 72 percent of the watershed's land base is used for agriculture, primarily dryland wheat croplands.

CONCERNS

To understand the water quality problem in the Fifteenmile Creek Watershed, it's important to look back at previous decades of land use in the area following World War II. This was a time when dryland agriculture peaked, and most farmers (predominately wheat growers in Wasco County) managed the land using traditional moldboard plowing. The moldboard plow is a piece of equipment commonly used to break new ground or turn cover crops. However, this practice is highly disruptive to the soil and causes poor soil quality. Decades of these farming practices increased erosion throughout the watershed, particularly in the form of gully erosion. Gullies resemble large ditches or small valleys and are created when water flows at a high rate, typically on a hillside. Gully erosion adversely affects water quality because it allows more sediment to enter streams.

During this same period, typical land uses on national forests in the area included timber harvesting and livestock grazing, again using the customary methods of the time, which did little to address soil quality. Road construction and public road use was also on the rise, as the appetite for timber grew with the post-war housing boom, and the national craving for outdoor recreation escalated. Decades of such intensive land use contributed sediment to streams.

Over the years, agricultural and forest practices also impacted vegetation growing alongside streams, reducing the amount of trees and shrubs. Trees and shrubs help stabilize stream banks, filter runoff and provide shade to enable cooler water temperatures.

It was a combination of all these land use factors that slowly degraded water quality over the years. In 1998, the Oregon Department of Environmental Quality listed the perennial streams in this watershed on the Clean Water Act Section 303(d) list of impaired waterways for both sediment and temperature. That listing decision was the catalyst for the government and private landowners to come together to restore and protect this vital water system. Listing the watershed raised public awareness and provided strong rationale for restoration funding. Additionally, back-to-back 100-year floods in 1995 and 1996 got landowners' attention and set the stage for change.

MAJOR ACTIONS

To address the concerns, agencies at the local, state, and federal level worked with private landowners to restore and conserve the land. The two major actions that improved water quality and stream habitat are:

- Establishing and protecting streamside vegetative buffers; and
- Converting to no-till/direct seeding.

Streamside Buffers: Since the late 1980's, landowners have established vegetative buffers along 90 percent of the perennial stream miles on privately-owned land within the watershed. This work was funded by multiple agencies, including the Bonneville Power Administration, the Oregon Department of Fish and Wildlife, the Oregon Watershed Enhancement Board and others. These streamside vegetative areas have

rebounded to provide shade, water quality functions, and other resource benefits to protect the water and keep it healthy.

Additionally, majority of the perennial streams in the Fifteenmile Creek Watershed have streamside vegetative buffers enrolled in the Farm Service Agency's Conservation Reserve Enhancement Program (CREP). This is a voluntary program that restores and protects environmentally-sensitive land along streams and other water bodies by targeting high-priority conservation areas identified by local, state, or tribal governments or non-governmental organizations. In exchange for removing environmentally sensitive land from production and introducing conservation practices, farmers, ranchers, and agricultural landowners are paid an annual rental rate.

A study by the Wasco County Soil and Water Conservation District showed that after these buffers have been in place for five years, they display a clear improvement in streamside conditions. Another study by the Oregon Department of Agriculture recently showed that the percentage of fine sediments in Fifteenmile Creek and most of its tributaries decreased from 2006 to 2014.

Establishing healthy vegetative buffers along Fifteenmile Creek has been a major action in the whole watershed restoration approach. These buffers help to stabilize the stream banks, filter run-off, provide shade to enable cooler water temperatures, restore nutrients and oxygen to the soil, and more. Photo credit: Steve Springston.

No-till Drilling: By working directly with wheat growers and other farmers, the Natural Resources Conservation Service (NRCS) and other partners are helping growers transition from traditional plowing to no-till or direct seeding practices. This new, innovative type of planting reduces soil disturbance—allowing the delicate soil microbes and arthropods to thrive. No-till practices increase water infiltration, boost soil organic matter, reduce erosion, and improve the release of nutrients in the soil for plants.

Currently, 96 percent of agricultural land in the Fifteenmile Creek Watershed is farmed through conservation tillage practices, such as no-till drilling and direct seeding.

A variety of funding sources helped growers make the transition to no-till. Those included grant programs from the Oregon Department of Environmental Quality, the Oregon Watershed Enhancement Board, as well as financial assistance programs from NRCS.

Forest Improvements: Solutions also came to fruition on federally-owned Forest Service lands within the watershed. With increased funding for conservation over the past several decades, the Mt. Hood National Forest conducted a myriad of restoration projects in the Fifteenmile Creek Watershed, such as: decommissioning heavily-eroded roads near streams; improving fish passage; mitigating fish entrainment into water conveyance systems; re-vegetation and reforestation of degraded areas; protecting and improving riparian vegetation; and treating dense forested stands of timber to reduce the risk of uncharacteristically severe wildfire. The changing culture of natural resource management demanded landscape-scale restorations—working with other agencies and partners—to minimize impacts to aquatic habitats, soils and water quality.

This whole watershed approach, spanning public and private lands, continues today—and not just in the Fifteenmile Creek Watershed, but in many at-risk streams throughout Oregon, the Pacific Northwest, and the nation. But there is still more work to be done.

Decades of moldboard plowing farming practices increased gully erosion (pictured left) in the Fifteenmile Creek Watershed. Oregon conservation partners are helping crop growers in the area convert to no-till planting (pictured right) to minimize disturbance of the soil and reduce erosion, thus improving stream water quality.

PARTNERSHIPS AND COLLABORATION

Taking a whole watershed approach requires collaboration, partnerships and leveraged funding among state and federal agencies and conservation groups. Each partner contributed technical and financial assistance to efficiently use conservation dollars while concentrating efforts in priority areas in the watershed. Partners for this project include:

- Oregon Watershed Enhancement Board
- USDA Natural Resources Conservation Service
- USDA Farm Service Agency
- USDA Mt. Hood National Forest
- Oregon Department of Environmental Quality
- Oregon Department of Agriculture
- Oregon Department of Fish and Wildlife
- Bonneville Power Administration
- Fifteenmile Watershed Council
- Wasco County Soil & Water Conservation District
- Private landowners

KEEPING THE WATCH

The Conservation Effectiveness Partnership (CEP) is a team of natural resource agencies that measures effectiveness of cumulative conservation and restoration actions in achieving natural resource outcomes through collaborative monitoring, evaluation and reporting.

CEP agencies are: the Oregon Department of Agriculture, the Oregon Department of Environmental Quality, the USDA Natural Resources Conservation Service, and the Oregon Watershed Enhancement Board.

The CEP works collectively to understand, optimize and communicate the benefits of conservation funding investments in the Fifteenmile Creek Watershed and other focused areas within Oregon.

A similar partnership – the National Water Quality Initiative (NWQI) – is gaining momentum at the national level by NRCS, the U.S. Environmental Protection Agency (EPA), and state water quality agencies. The Fifteenmile Creek Watershed was one of more than 150 small watersheds in the country that received financial assistance to implement conservation systems.

Under the NWQI program, the Oregon DEQ received technical assistance from EPA to develop a monitoring program to evaluate water quality improvements. DEQ has set aside a portion of Clean Water Act Section 319 grant funding to implement the monitoring program and will work with local partners to collect this data in 2016.

As CEP partners continue to plan future monitoring efforts, local partners are also planning additional restoration and irrigation efficiency projects, leveraging CREP and other programs. Results from these monitoring efforts will be reported in the future to better understand how changes in land management actions have affected water quality conditions.