



Jefferson Soil and Water Conservation District

Annual Report of Accomplishments

July 1, 2018 – June 30, 2019

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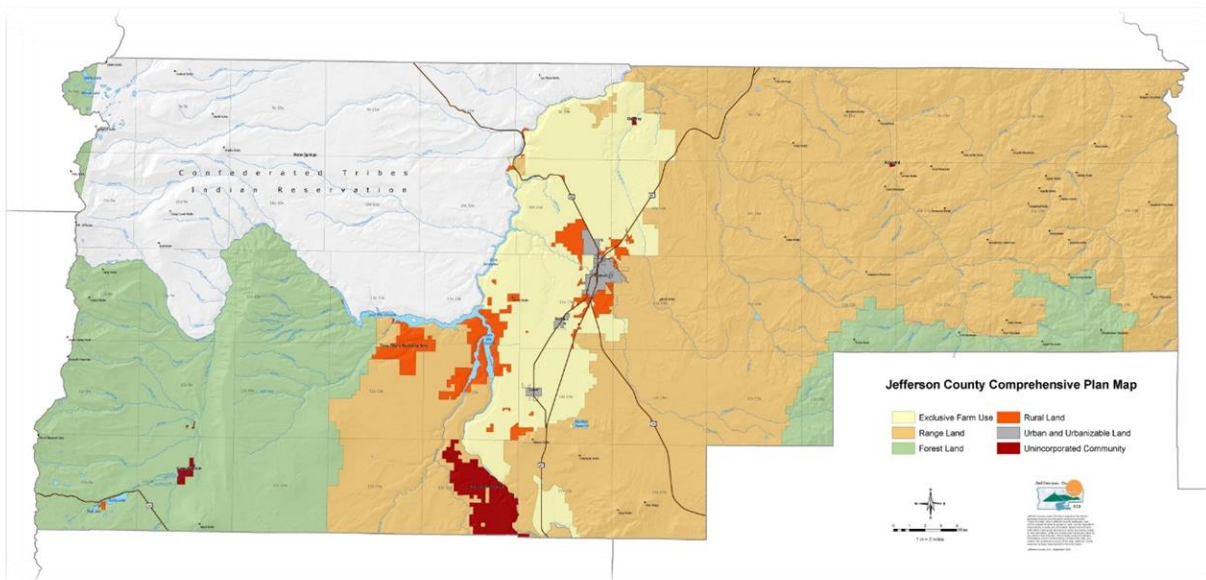
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Background

Overview

The Jefferson County Soil and Water Conservation District, hereafter, the “District”, consists of 4 staff members, 7 Board of Directors, and 4 Technical Advisors. The mission of the District is, *“To provide local leadership, education, motivation, and assistance to the citizens of Jefferson County for responsible, efficient stewardship of our soil and water resources.”* The District operates within Jefferson County in Central Oregon and has been helping landowners conserve natural resources since 1974. The District assists Jefferson County residents acquire technical assistance and financial support to install conservation practices to meet natural resource goals. We focus on local resource concerns. We strive to educate residents through technical assistance or information on how they can address problems on properties they own or manage.



Map of land use in Jefferson County, Oregon. Yellow = Exclusive Farm Use, Orange = Range Land, Green = Forest Land, Orange = Rural Land, Gray = Urban and Urbanizable Land, Red = Unincorporated Community.

History of Jefferson Soil and Water Conservation District

The 1930s brought an ecological disaster known as the “Dust Bowl”. Huge black dust storms blotted out the sun and swallowed the countryside. The U.S. Congress immediately declared soil and water conservation a national policy and priority. The idea for Soil and Water Conservation Districts (SWCD) was born. Today there are almost 3000 SWCD’s- one in almost every county (if you live in Jefferson County, the Jefferson County SWCD can help you). Each

SWCD is designed to serve the conservation needs of that county, educate and help its local citizens conserve land, water, forests, wildlife and other natural resources.

A group of cooperators in the Trout Creek area applied to the State Soil Conservation Committee in 1957 to establish a Soil conservation District (SCD.) Application was for the benefit of local landowners and cooperators. There were approximately 82 farms and 49 cooperators. Thirty-six had farm plans. Over time, Trout Creek increased their District as six more landowner/cooperators signed on with the District.

Trout Creek Soil Conservation District continued with plans to establish a working Conservation District. Although geographically isolated, they worked closely with the Forest Service, Bureau of Land Management and North Unit Irrigation District to accomplish more for the area than could be accomplished as individuals.

In 1961 an application presented to the State for establishment of a West Jefferson County Soil Conservation District was successful. Thirty-nine cooperators signed the petition.

By 1974, conservation needs continued to increase county wide. A committee formed to study the feasibility of a single county Conservation District. The State granted a reorganization and combining of Trout Creek SCD and West Jefferson SCD into Jefferson County Soil and Water Conservation District.

Jefferson Soil and Water Conservation District has been assisting local landowners with technical, financial and advisory expertise since 1974 after merging with Trout Creek SWCD which was established in 1957.

Jefferson County Soil and Water Conservation District Responsibilities

- Provide technical assistance to landowners to implement conservation measures to protect natural resources in the Willow and Trout Creek Watersheds, solve their individual problems, and meet their objectives.
- Provide technical assistance to county and city governments on problems involving erosion control, irrigation, manure management, invasive species, wildlife habitat, stream functioning, and other natural resource issues.
- Conduct research and assessments to identify problems and solutions. This will help to protect the environment, economy, and communities.
- Work with local agencies and groups to address watershed-wide natural resource concerns and opportunities.
- Educate residents through public speaking, workshops, printed material and public media.
- Bring federal, state, and private dollars to Jefferson County to assist landowners with implementation costs and technical assistance through the Oregon Department of Agriculture, the United States Department of Agriculture, Oregon Watershed Enhancement Program, and other funding sources.

District Staff

Staci Merkt

District Manager

Staci Merkt moved to Central Oregon from Virginia in April of 2019. She holds a B.S. from Radford University in Natural Resources Management. In Virginia, she worked for SWCDs for 12 years doing a combination of fieldwork and administrative duties. Prior to that, she traveled around the country working for the Bureau of Land Management, Farm Service Agency and National Park Service. She is ready to settle down here in Central Oregon!

Adam Haarberg

Trout Creek Project Manager

Adam Haarberg started with the District in March, 1998. He earned a Bachelor of Science in Rangeland Resources from Oregon State University in 1996. Adam manages the contract with Bonneville Power Administration (BPA) to implement habitat improvement projects in the Trout Creek Watershed to benefit the federally listed “threatened” Mid-Columbia summer steelhead population that utilizes Trout Creek and its tributaries.

Victoria Fischella

Conservation Reserve Enhancement Program (CREP) Planner

Victoria Fischella is the current CREP Planner and started her position in April of 2019. Victoria has worked in the natural resources field in central Oregon for the past ten years. She received her B.S. in Forest Ecosystems and Society from OSU-Cascades in 2017.

Jenna Keeton

Middle Deschutes Watershed Council (MDWC) Coordinator

Jenna Keeton is the current Council Coordinator and started her position in October 2019. Jenna earned a M.S. in Aquatic Ecology from Utah State University in 2019 and a B.S. in Aquatic and Fishery Sciences from the University of Washington in 2014.

Board of Directors

The SWCD is governed by a seven-member Board of Directors elected in the General Elections. Five are elected from each of the zones and two are at-large positions. Directors serve four-year terms.

Lloyd Forman	<i>Chair, Zone 4</i>
Sean Vibbert	<i>Vice Chair, Zone 3</i>
Curt Locke	<i>Treasurer, Zone 5</i>
Brad Klann	<i>Secretary, Zone 2</i>
Scott Samsel	<i>Director, At Large 1</i>
Rob Gaylen	<i>Director, At Large 2</i>
Vacant	<i>Confederated Tribes of Warm Springs Representative, Zone 1</i>

Technical Advisors

Theresa DeBardelaben	<i>Oregon Department of Agriculture, Watershed Specialist</i>
Lars Santana	<i>Natural Resource Conservation Service, District Conservationist</i>
Lisa Windom	<i>North Unit Irrigation District, Special Projects Manager</i>
Smita Mehta	<i>Oregon Department of Environmental Quality, TMDL Coordinator</i>

Annual Plan of Work

Jefferson County SWCD 2018-2019 Annual Plan of Work/ODA Scope of Work

Encompassing work beginning 7/1/2018 – 6/30/2019

Goal A: Improve Water Quality and Quantity Related to Irrigation Water Management

**Promote efficient irrigation water usage that prevents soil erosion, controls pesticide and nutrient leaching and irrigation runoff.*

1. Partner and collaborate with stakeholders, agencies and organizations including NUID, NRCS, Jefferson County, OWEB, FSA, MDWC, Wy-East RC&D; other area Watersheds etc. to coordinate and facilitate natural resource agreements, work group participation and round table discussions
2. Provided technical assistance to landowners including site visits, conservation planning, designing projects, grant writing, implementing conservation practices, compliance visits with ODA, and project management/inspection/verification
3. Continue to work with Landowners on the Rattlesnake Canyon and Campbell Creek on tailwater issues and the Agency Plains Runoff Areas including Campbell Creek etc. Use OWEB Agency Plains Grant to accomplish
4. Continue soil and water monitoring for nutrients in Mud Springs, Campbell Creek and Rattlesnake Canyon as needed based on data collected to reach goals identified in ODA Focus Area Action Plan
5. Carry out monitoring tasks for the DEQ Pesticide Stewardship Pilot for Gateway, Campbell Creek and Culver Drain
6. Work with Landowners on potential Juniper Cut projects in both the Trout and Willow Creek Watersheds
7. Continue to write Small Grants through the OWEB Small Grant Program

Goal B: Water Quality & Conservation Projects/Outreach/Technical Assistance

**Promote District Conservation Projects*

1. Assist landowners with soils info or GIS mapping etc. as needed. Assist landowners with EQIP applications and certified farm plans that result in funding for improved Water Quality/Quantity and assist landowners with OWEB small grant applications
2. Facilitate tours of conservation practices implemented and planned
3. Participate in Farm Fair, and other Natural Resource Committees/Groups
4. ODA Focus Project/Action:
 - a. Implement Projects in the Mud Springs Focus Area
 - b. Provide Quantitative results to ODA

Goal C: Environmental Quality Incentives Program (EQIP)**Work with partners on existing contracts and future contracts*

1. Lateral 58-11 Funding and Technical Assistance
2. Partner with NUID and NRCS to assist with piping 5 miles of piped irrigation
3. Assist NUID and landowners with grant or program funding applications for implementation and on farm plans
4. Identify projects for Agency Plains projects. Provide technical field services and assist with funding assistance if requested
5. Write 3 Small Grants for improved water quality and water quantity in both Willow Creek and Trout Creek Watersheds

Goal D: NRCS Assistance**Work with NRCS on existing contracts and future contracts*

1. Assist landowners with soil or GIS mapping as needed. Assist landowners with NRCS EQIP applications and certified farm plans that may result in funding for improved water quality and quantity
2. Assist with conservation questions for natural resource concerns
3. NRCS Training as requested

Goal E: Trout Creek Watershed Enhancement**Improve Riparian Function in Trout Creek Watershed*

1. Manage and Administer Projects - Manage Project
2. Produce Environmental Compliance Documentation - Environmental Documentation for Project
3. Operate and Maintain Habitat/Passage Structure
4. Produce Design Specifications for Foley Creek
5. Produce Design Specifications for Little Trout
6. Install Fish Passage Structure
7. Realign, Connect and/or Create Channel
8. Increase Aquatic and/or Floodplain Complexity
9. Enhance Floodplain/ remove, modify, breach dike
10. Remove Vegetation
11. Plant Vegetation - CREP Enrollment
12. Plant Vegetation - CREP Enrollment
13. Install Fence
14. Develop alternative water source
15. Maintain Vegetation - Noxious Weed Program
16. Plant Vegetation - Riparian trees and shrubs

17. Plant Vegetation - Upland trees and shrubs
18. Assist ODFW with normal procedures
19. Produce Annual Progress Reports
20. Produce Pisces Status Report

**Trout Creek Monitoring*

1. Yearly Redd Counts (with 5-year comparison)
2. Annual project site visits/evaluations and photo points
3. GPS survey all past stream restoration project sites
4. Spring Tour of Trout Creek Middle Trout Project

**CREP Program*

1. 3 CREP Contracts
2. 2 Events/Outreach Activities
3. 3.0 Miles of Stream into CREP
4. 110 Acres of Habitat to be Assessed

Goal F: Middle Deschutes Watershed Council Support

**Provide Middle Deschutes Watershed Council Technical and Administrative Support*

1. Provide technical assistance to on the ground projects
2. Provide admin support for Small Grant Projects
3. Manage Small Grant Team/Requirements/Functions
4. Assist with Education Natural Resource Programs in Jefferson County

Goal G: District Operations – Marketing Operations

**Effectively market Jefferson SWCD projects to targeted audiences to increase community support for our mission*

1. Maintain District web or blog site. Display information, news, create community, share alternatives to donating money, and showcase benefits of Jefferson SWCD programs.
2. Show and market the results and outcomes that Jefferson SWCD achieves thru Annual Report.
3. Flyers, Brochures and News Releases. Distribute Rural Living Handbooks as needed.
4. Participate Groups or Natural Resource Committees or Groups that align with the District Mission in Jefferson County.
5. News articles locally

Goal G: District Operations – Internal Operations

**Manage programs and projects to accomplish Jefferson County vision and mission by achieving measurable outcomes*

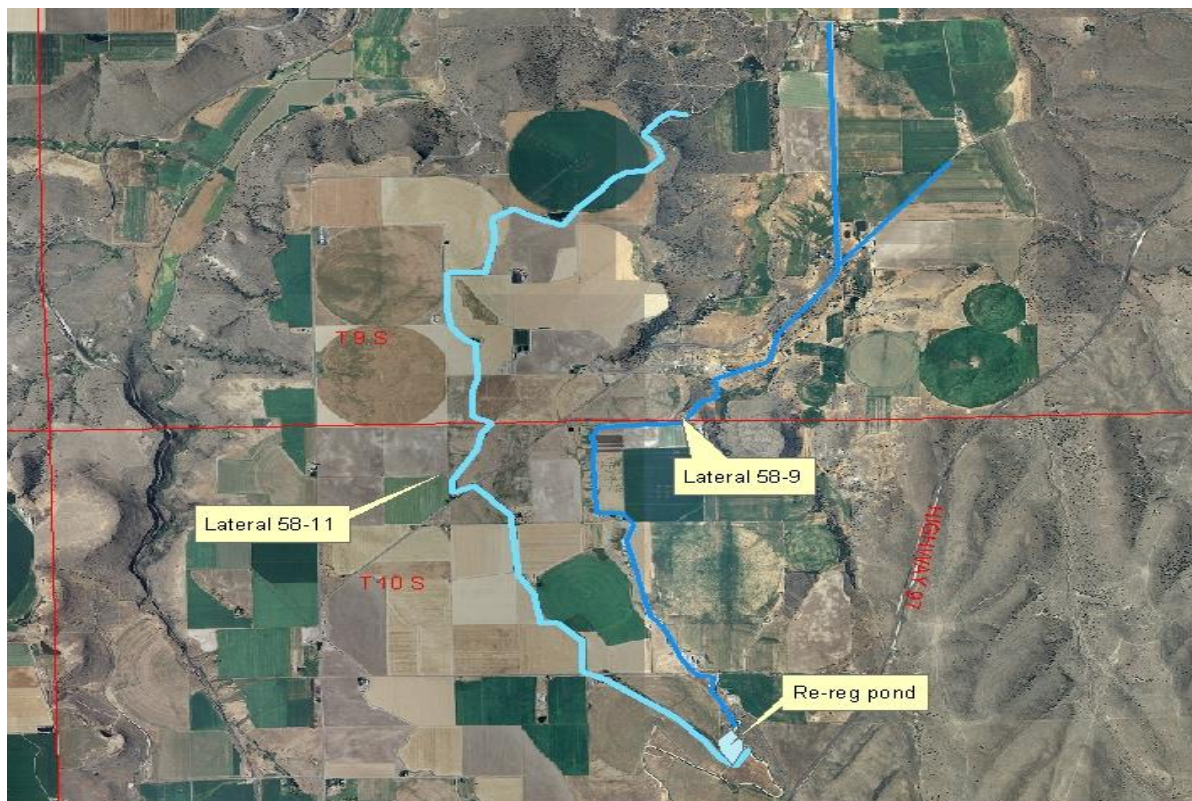
1. Maintain Strategic Area Plan 2015 - 2020
2. Annually update Annual Plan of Work based on Jefferson SWCD Strategic Area Plan.
3. Update as needed Board Policies and Procedures
4. Continue to manage Jefferson County SWCD financial affairs consistent with Accepted Accounting Principal and ODA Requirements
5. Continue to explore the steps to seeking a Jefferson County tax base
6. Conduct annual financial audit or review

Regional Update: Piping Effort, Lateral 58-11

Overview

This project began in June of 2011 and is in the process of converting 6 miles of open ditch delivery of irrigation water to piped delivery. This will result in improved energy efficiency for landowners due to loss of water seepage and evaporation. The water savings are estimated to be 3.7 cfs, or 1,617 acre-feet per year. Mud Springs, a local tributary to Trout Creek and ultimately the Deschutes River, may benefit from this project through receiving less irrigation runoff and will therefore experience improved water quality. Additionally, the Crooked River may experience increased stream flow during Spring and Summer due to water savings, leading to improved habitat for steelhead that are currently being reintroduced.

To date, nearly \$2 million have been spent on this project for planning activities with partners North Unit Irrigation District (NUID), Natural Resource Conservation Service (NRCS), Oregon Watershed Enhancement Board (OWEB), Jefferson County Soil and Water Conservation District (JSWCD), and Bureau of Reclamation (BOR). Funding comes from BOR, NUID, NRCS, PGE and OWEB. This project is currently in progress and is slated to be completed by 2020. Currently, NUID is finishing Phase 4 of the 58-11 project for a total of 11,726 ft of installed pipeline.



Map of Lateral 58-11 in light blue in Agency Plains, Madras, Oregon.

Table of construction phases and estimated water savings per day (cubic feet per second, cfs) and per year (acre-feet).

Section of Lateral 58-11	Estimated water savings per day (cfs)	Estimated water savings per year (acre-feet)
TOTAL (32,700 feet)	3.7	1620
Phase 1 (first 3,309 feet)	0.5	219
Phase 2 (next 2,618 feet)	0.4	175
Phase 3 (next 5,799 feet)	0.8	350
Phase 4 (next 2,100 feet)	0.3	131
Phase 5 (next 8,374 feet)	1.0	438
Phase 6 (last 10,500 feet)	0.7	307

Small Grant Program

Every Biennium, OWEB has allocated approximately \$100,000 for each SWCD statewide to implement natural resource conservation practices. The Small Grant Team develops priorities based on information received from landowners and agency personnel. Conservation practices and environmental benefits must meet the criteria set by OWEB. Small grants have a quick turnaround for funds and are limited to \$15,000.00 in total costs of the project per landowner per Biennium. A 25% landowner match (cash or in-kind) is also required. The Jefferson County SWCD District Manager manages this program

Project Description	Funded Amount
Pump Upgrade	\$14,514.68
Flood to Sprinkler	\$14,965.61
Juniper Cut	\$14,927.72
Sediment Pond Expansion	\$10,531.49
Juniper Cut	\$10,100.00
Water Efficiency Pipeline	\$15,000.00
Fencing Project	\$14,991.00
<i>Total Small Grants</i>	<i>\$95,030.50</i>

Water Quality Monitoring in Jefferson County

Since 2007, JSWCD has monitored water quality in Mud Springs and Trout Creek. Mud Springs is a tributary to Trout Creek and received tailwater from agricultural lands. Trout Creek is a major tributary to the Deschutes River and serves as a major spawning ground for summer steelhead. JSWCD has monitoring water quality through looking at in-stream turbidity at the mouth of Mud Springs Creek. Turbidity is a measure of water clarity and thus is a useful measure for agricultural runoff. The monitoring data collected in 2007, 2014, 2016, 2017, and 2018 show a slight decline in Mud Springs turbidity over time, suggesting the on-farm practices and or piping efforts are lowering sediment input into this creek.

Pesticide Stewardship Partnership Program

The Jefferson SWCD in partnership with the Middle Deschutes Watershed Council collected water samples from three designated locations (five sites total) in the Middle Deschutes Watershed during the 2017-2019 Biennium. Samples were collected on a prescribed schedule that the SWCD and DEQ agreed upon. Each of the five locations were sampled during the spring and fall. All samples were collected in accordance with protocols established by DEQ and ODA. The Conservation Technician for the SWCD completed the following to ensure biennium success:

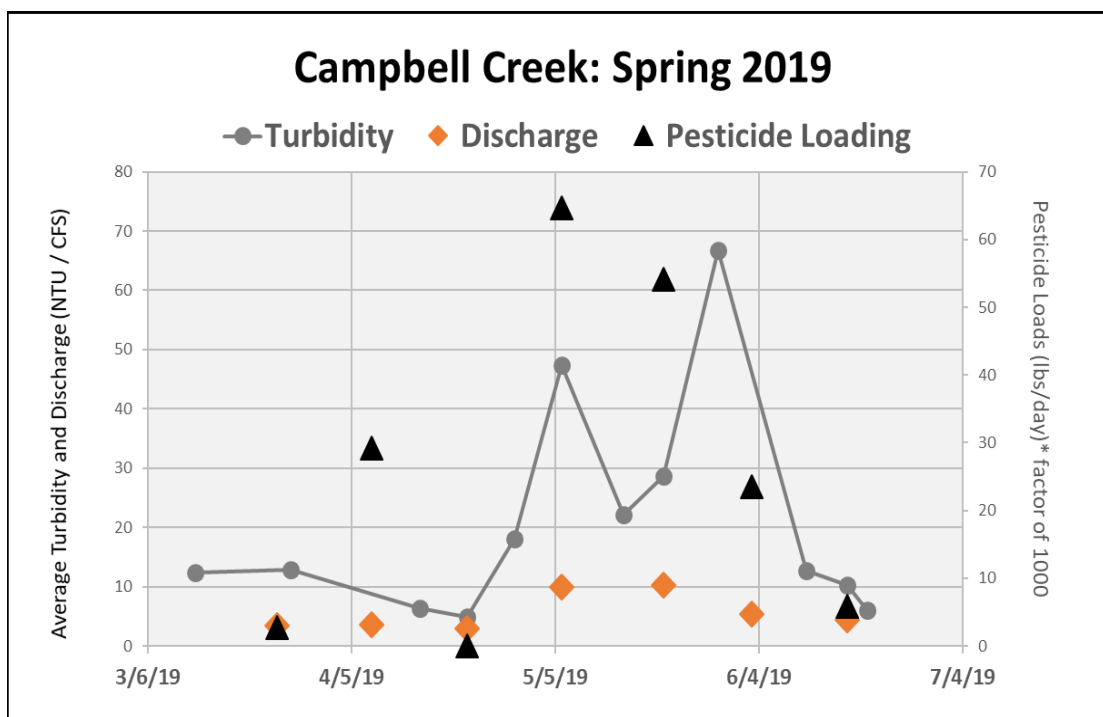
- Collected water samples and flow data during the spring and fall
- Attended informational webinars and trainings to comply with collection protocols
- Coordinated sampling schedule changes with DEQ staff
- Coordinated the field audit with DEQ staff
- Traveled from site to site
- Trained field staff with the Middle Deschutes Watershed Council in the proper collection of water samples and flow data
- Organized and maintained field equipment to ensure successful sampling events

In 2019 Jefferson SWCD continued collecting water samples from tributaries and irrigation drainages throughout Jefferson County. The pesticide results that we received from the Department of Environmental Quality (DEQ) showed that in many locations, especially within the Campbell Creek watershed, that pesticide levels were exceeding Aquatic Life Benchmarks*. During a SWCD Board Meeting in the Spring of 2019, the Board agreed unanimously that the findings of the Pilot warranted the development of a full PSP Program. SWCD staff values working with ODA and DEQ under the partnership to identify harmful pesticides in surface waters of the Middle Deschutes. The SWCD will continue to work with their partners to become a program in the 19-21 Biennium.

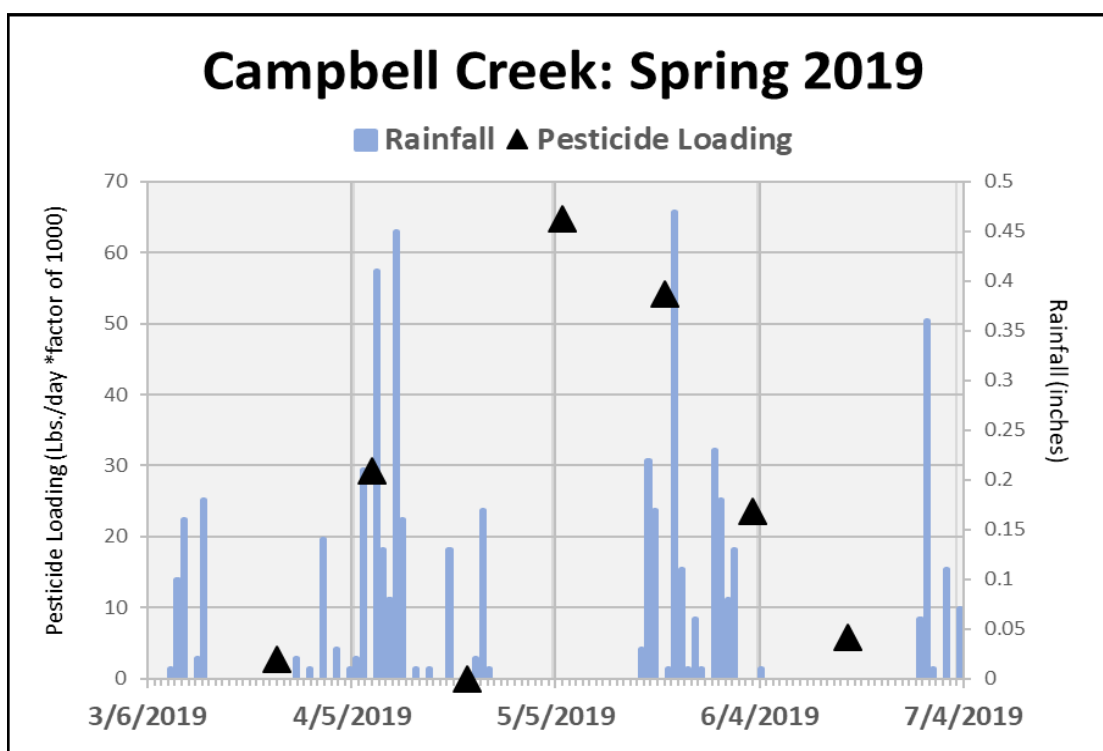
**Aquatic life benchmarks are estimates of the concentrations below which pesticides are not expected to represent a risk of concern for aquatic life. Comparing a measured concentration of a pesticide in water to an aquatic life benchmark can be helpful in interpreting monitoring data and in identifying and prioritizing sites and pesticides that may require further investigation.*

Table of Pesticide detections from Spring 2019 sampling.

Pesticide	Type	Benchmark Value µg/L	No. of Analysis	No. of Detections	Max. Conc. µg/L	Average Conc. µg/L	Percent Detections	Percent of Benchmark (Max. Conc.)
2,4-D	H	299.2	10	1	.1	.01	10	0
Acephate	I	150	24	1	.07	.003	4.2	0
AMPA	M	249500	10	9	.67	.2	90	0
Azoxystrobin	F	44	24	13	.19	.045	54.2	.4
Bromacil	H	6.8	39	1	.33	.0085	2.6	4.9
Chloropyrifos	I	.041	39	6	2.15	.073	15.4	5244
Cycloate	H	1200	39	2	.049	.0024	5.1	0
Dacthal (DCPA)	H	11000	39	8	1.58	.035	20.5	0
DCPA Acid Metabolites	M	75	10	2	.003	.0005	20	0
Dimethenamid	H	8.9	39	19	4.25	.26	48.7	47.8
Dimethoate	I	.5	39	8	2.31	.11	20.5	462
Diuron	H	2.4	39	31	2.2	.223	79.5	91.7
Ethoprop	I	.8	39	1	.07	.02	2.6	8.7
Glyphosate	H	1800	10	7	.49	.132	70	0
Hexazinone	H	7	39	3	.105	.006	7.7	1.5
Imazapyr	H	18	39	1	.197	.0051	2.6	.8
Imidacloprid	I	.01	39	2	.056	.0022	5.1	557
Linuron	H	.09	39	29	2.93	.0202	74.4	3256
Metolachlor	H	1	39	5	2.95	.078	12.8	295
Metribuzin	H	8.1	39	12	.913	.029	30.8	11.3
Oxyfluorfen	H	.33	39	8	.0704	.0106	20.5	24.3
Pendimethalin	H	5.2	39	21	2.62	.115	53.8	50.4
Prometon	H	98	39	3	.0078	.00047	7.7	0
Prometryn	H	1.04	39	20	.892	.055	51.3	85.8



Average turbidity (NTU, gray circle), discharge (cfs, orange diamond), and pesticide load (lbs per day, black triangle) in Campbell Creek over the Spring 2019 sampling period from 3/6/2019 – 7/4/2019.



Pesticide loading (lbs/day, black triangle) and rainfall (inches, blue bar) in Campbell Creek over the Spring 2019 sampling period from 3/6/2019 – 7/4/2019.

Trout Creek Watershed Improvement Project

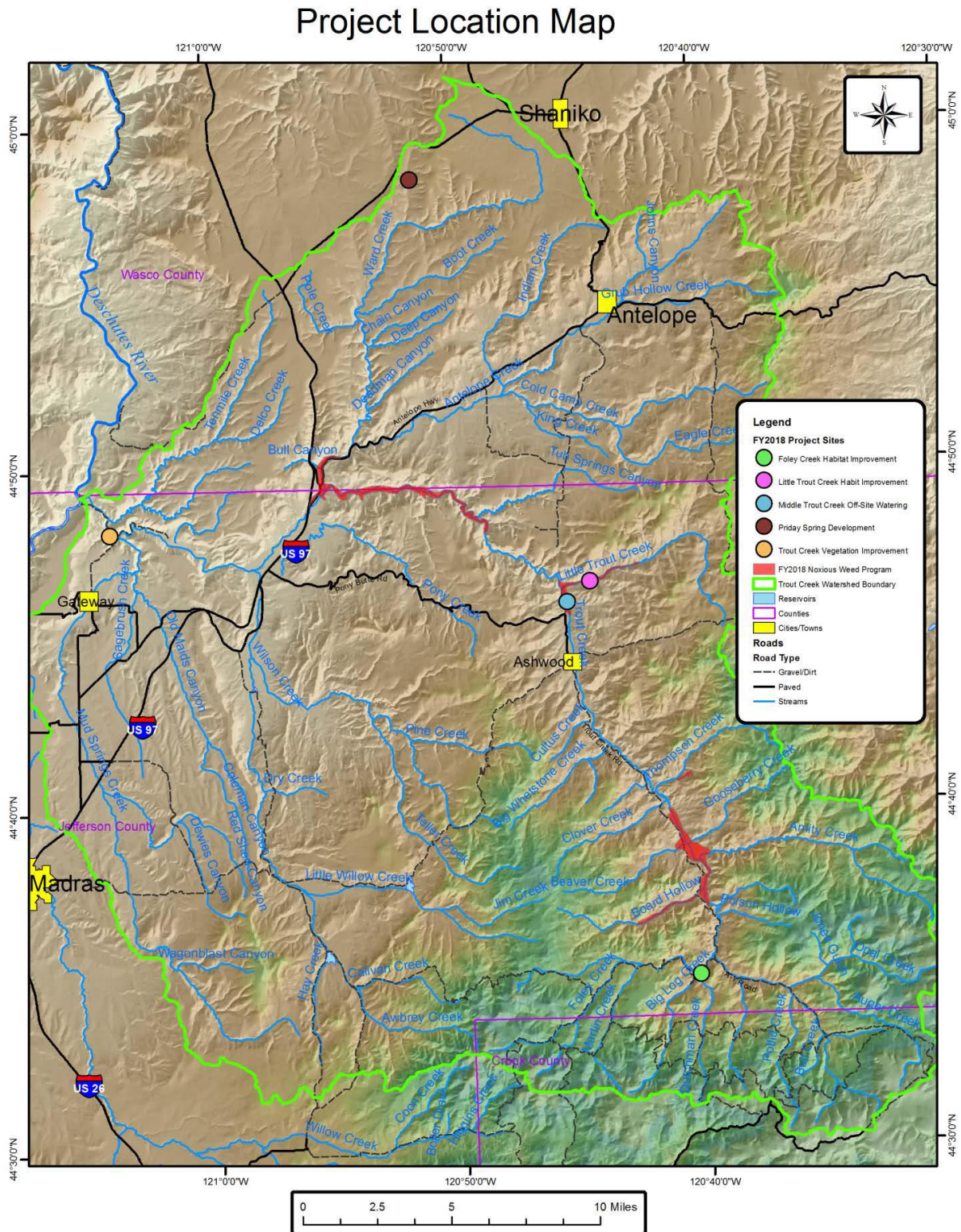
Led by Adam Haarberg

Project No. 1998-028-00

Project History

The Trout Creek Watershed Restoration Project's primary goal is to increase the abundance of ESA listed Middle Columbia River DPS Summer Steelhead. Following the goals and objectives of the numerous plans and documents will ensure the viability of the summer steelhead that utilizes the Trout Creek Watershed. Continued work in this area will promote healthy populations of numerous species of fish and wildlife, while simultaneously promoting the use of sustainable agricultural practices on private land. Successful agriculture and extraordinary habitat can and does coexist in the Trout Creek Watershed, and needs to continue well into the future for all parties involved if there is to be true "restoration." The work done here also has a huge impact on the region's financial income. The Deschutes River is one of the single largest recreational summer steelhead fisheries in the United States, with over 50,000 angler days per season, bringing millions of dollars annually to the region. Trout Creek accounts for approximately 25-33% of the entire run of wild summer steelhead found in the Lower Deschutes River Subbasin (ODFW). Sustaining or better yet, improving this run of fish is critical to the economy of central and north-central Oregon.

We plan to accomplish these goals with the implementation of demonstration projects located throughout the Trout Creek Watershed on private lands. Priority areas have been identified in previous studies and assessments. We give preference to these areas when selecting projects to implement, but it should be noted that all of our work hinges on the permission and desire of the landowner. Some landowners are more willing than others. Since the inception of this project in 1998, there have been massive gains in trust and willingness throughout the watershed and we have recently gained access to numerous acres that were previously off limits to us and our work. This gain in trust is a huge benefit for all when it comes to the restoration of our habitat. The demonstration projects we plan to implement include: Habitat Improvement Projects that include in-stream work, riparian and floodplain enhancements, fish passage improvements, upland vegetation management, spring developments and conservation easements such as the Conservation Reserve Enhancement Program (CREP). We have been very successful in the improvement of irrigation practices throughout the watershed, and there are still more opportunities that exist in Trout Creek. Improving efficiencies of irrigation systems is critical to the overall reduction of water withdrawals. Also, improving individual points of diversion, not only aid the irrigator, but hugely benefit the species of concern, juvenile summer steelhead.

Project Location Map***Completed Work***

Little Trout Creek Habitat Improvement Project

This is going to be a large-scale restoration project located Primarily on Little Trout Creek located north of Ashwood. The project will consist primarily of fish habitat structure placement with some streambank and floodplain shaping. Fish habitat and streambank structures will be constructed using juniper trees and root wads from the site. A stream crossing consisting of a hardened ford, arched culvert, or a bridge will be constructed at the lower end of the project area. Equipment used will include a tracked exactor, a medium sized bulldozer, and an off-road dump truck. The excavator will be used to pull the junipers out of the ground and then load them into the dump truck, and then transported to the creek. The dozer will be used to smooth out the berms and shape the floodplain. The excavator will be used to place the log structures and slope the vertical banks back away from the channel. All disturbed areas will be re-vegetated with native seed and the area within the CREP boundary will be planted with native trees and shrubs as well. We will continue to work in conjunction with the Restoration Review Team throughout the design process to ensure the best possible project for the resource. It should be noted that this project was postponed due to delays in final design approval as well as a change in ownership of the property.

Trout Creek Vegetation Improvement

This project will plant native trees and shrubs by hand and native seed in designated riparian exclosures throughout the Trout Creek Watershed. Planting sites will be areas with low existing plant densities and will be planted in clumps with an overall density of 300-500 plants per acre. Tree planting will occur in sites previously surveyed for cultural resources. Areas that have been freshly scoured with recent high-water events may be re-seeded with native seed mix. Areas that have been treated for noxious weeds will be a priority for this work element. We will locate areas with exposed soil or little vegetation and broadcast native seed in those areas within the Trout Creek Watershed. These sites may coincide with sites treated through the Trout Creek Noxious Weed Program. Re-vegetating the disturbed ground will help stabilize the soil and reduce overall erosion and sediment entering the streams/waterways in the watershed.

Trout Creek Noxious Weed Program

Continue the noxious weed program for the Trout Creek Watershed for the 8th year, the sixth in conjunction with the Jefferson Co. Public Works and local licensed applicators. Collaborate with the County to provide them with herbicide to be used in the Trout Creek Watershed on "A" list weeds. The County will disperse herbicide to approved landowners and also apply the chemical as well. Coordinate with local licensed applicators that are spraying on

private property in the Trout Creek Watershed to potentially provide herbicide for "A" list species. The SWCD will continue to apply chemical to known weed patches throughout the watershed. The program will attempt to control noxious weed species that are found on the county's "A" list. These include Scotch Thistle, Spotted Knapweed and Yellow Starthistle. We will continue to monitor areas with known biological control on certain weed patches to determine if more biological control is necessary or if herbicide will need to be used. Ensure the proper reporting from the SWCD and the County in order to provide accurate accounting of herbicide use to EC.

Friday Spring Development

Develop a spring and gravity pipe to a trough strategically placed to allow livestock to water in two separate pastures, while protecting the spring source with fencing. This will continue to exclude the livestock from grazing and watering on nearby Shanty Creek and now protect the spring source. This project was originally in ODFW Trout Creek Project's (BPA Project #1992-042-00) SOW in 2016. The project site has been previously surveyed for cultural resources.

Middle Trout Creek Habitat Improvement – Off-Site Watering Facility

Improve solar watering system that was installed in 2017 to make both troughs work simultaneously. Replace solenoid valves with manual valves and add float valves to each trough to allow the water to be delivered to each trough when needed. The project site has been previously surveyed for cultural resources in 2015.

Project Updates

Tri-County (Jefferson, Wheeler, Crook) Weed Management

Noxious weed management in Central Oregon consists of mix entities that have history of working together to try to solve noxious weed issues across watersheds and counties. This project will focus on increasing coordination across county boundaries, strengthening county programs and building outreach and education efforts, while treating priority “A” and “B” weeds.

In this project, we plan to combine efforts, choosing yellow star thistle as our top weed to focus on for survey and treatment. Eight other noxious weed species have been identified for additional survey, outreach and education and some treatment as warranted in Jefferson, Wheeler and Crook Counties. The species we have chosen are at manageable levels or in the early detection and eradication stage.

Landowners will be contacted through multiple outreach initiatives and 5 meeting for the three counties on priority noxious weeds and the targeted areas of the project. Infestations will be located and surveyed through informed observations and partnership with other entities working in the target lands. The project will reveal the composition of infestations in all watersheds within Wheeler, Jefferson, and Crook counties, allowing for a strategic and engaged treatment program.

Oregon Department of Agriculture Capacity Funds

Funds to support Soil and Water Conservation District capacity have been appropriated by the Oregon Legislature to the Oregon Watershed Enhancement Board. The funds appropriated for this purpose are from constitutionally dedicated State Lottery Funds (Article XV, Section 4b). Oregon Lottery Funds are dedicated under Ballot Measure 76 and awarded by OWEB to fund Oregon’s Soil and Water Conservation Districts. The Oregon Department of Agriculture has established an agreement with the Oregon Watershed Enhancement Board (hereinafter “OWEB”) for the distribution of funds to Soil and Water Conservation Districts.

The Intergovernmental Agreement (hereinafter “IGA”) is made and entered into by and between OWSEB, the Jefferson County SWCD (hereinafter “District”) and the Oregon Department of Agriculture (hereinafter “ODA”.) This IGA defines the roles and responsibilities of the District, ODA, and OWEB in the implementation of agricultural water quality management area plans utilizing the capacity funds appropriated by the Oregon Legislature. Oregon law encourages plan implementation through soil and water conservation districts (SWCD) as Local Management Agencies to the fullest extent practical. The purpose of the financing is also to provide technical assistance and outreach that implements the Oregon Plan for Salmon and Watersheds, and the restoration and protection of native fish and wildlife, watersheds and water quality.

Agency Plains Landowner Technical Assistance

This project will be a multi-agency recruitment effort to identify specific on-farm projects to improve water quality/quantity and reduce sediment-laden tailwater from flowing into the Deschutes River from Agency Plains outside of Madras, OR. The technical assistance project will support outreach to landowners to secure landowner agreements for conservation efforts. This project will expand upon the Rattlesnake Canyon Sediment and Drainage Mitigation Study technical assistant grant that was completed in 2015 to assess the water quality issues on Agency Plains and develop solutions to the problem. Partners will include North Unit Irrigation District (NUID), the Natural Resource Conservation Service (NRCS), and the Middle Deschutes Watershed Council (MDWC). OWEB funds will be used for outreach, partner support, and administration.

Trout Creek Improvement

This project lies within the Trout Creek Watershed, an east side tributary to the Deschutes River. Located in Jefferson County, the project sites are located south of Ashwood on two tributaries of Trout Creek; Calf Gulch and Thompson Creek. These two tributaries are critical to one of the very few perennial reaches of Trout Creek. Both of these creeks are intermittent on the surface, but provide much needed subterranean flow to Trout Creek, keeping a 4-mile reach with surface water year-round. With water flow being listed as one of the major limiting factors in the East side tributaries of the Deschutes River, this particular stretch of Creek is very important to the survival of listed Mid-Columbia Summer Steelhead. The property includes two tracts of land totaling 2250 acres. 1445 acres are located in Calf Gulch and 805 acres in Thompson Creek, both of which have an overabundance of western juniper. The understory throughout the property is in relatively good shape with diverse perennial bunchgrasses, forbs and shrubs, lending itself to high upland restoration potential. Removing the junipers, enhancing the herbaceous and shrubby vegetation will significantly improve the wildlife habitat and provide an increase in much needed water to both creeks as well as Trout Creek itself, increasing summer flows and potentially extending the perennial reach downstream, increasing usable summer habitat for steelhead juveniles. The landowner plans to cut a portion of the junipers with chainsaws and remove others with an excavator. The Ashwood-Antelope Rangeland Fire Protection Association will then perform prescribed burns to the area, while ODFW and the Jefferson SWCD will re-seed the areas cleared with the excavator. ODFW and SWCD will also plant some willows adjacent to the creeks to provide future habitat and food for potential beaver relocation in the future.

Pesticide Stewardship Pilot

The proposed project will allow for the collection, handling, and shipping of surface water samples collected in the Middle Deschutes pilot PSP and delivered to the Oregon Department of Environmental Quality Laboratory. It is estimated that during the course of this agreement that approximately 90 regular and QA/QC samples will be collected and submitted for analysis. This activity will begin around March 2018 and extend to June 30, 2019.



Measuring stream flow on Campbell Creek as part of the Pesticide Stewardship Partnership monitoring.

Partner Updates

Middle Deschutes Watershed Council

Administrative Activities

The Middle Deschutes Watershed Council (MDWC) was awarded full funding from the Oregon Watershed Enhancement Board for a Council Capacity grant for the 2017-2019 biennium which funds the coordinator position and council activities for two years. A Council Capacity grant for the 2019-2021 biennium was submitted in Spring 2019. John Speece left his position as Council Coordinator in September 2018 and Andy Neary assumed this position. Education coordinator, Kate Wellons hired in Fall 2018 to provide Fall education programming and left in Spring 2019. Victoria Fischella was hired in Spring 2019 as a Program Assistant. Kate and Victoria created a new MDWC website which provides current information relevant to the public as well as historic documents. MDWC Board elections were held in January 2019 and Board Members conducted a self-evaluation, resulting in 83% Board approval of MDWC activities.

Education Program

The MDWC Environmental Education Program was funded in part through a grant from the Gray Family Foundation in 2018. The work this grant supported allowed the MDWC to focus on 3rd-8th grade curriculum at Madras, Buff, and Metolius Elementary Schools, and Warm Springs K-8 Academy. Students received several in-class presentations and several field trips and learned about stream ecology, water quality, the importance of upland habitat management. The MDWC was also funded through an Environmental Protection Agency Environmental Education grant from the Children's Forest of Central Oregon. The goal of this project was to deliver classroom and field trips to students in Central Oregon over two years. The MDWC has already hosted multiple field trips with Culver Elementary School and Madras High School on Willow Creek and Trout Creek, planting riparian vegetation along streambanks. The MDWC attempted to hold a 'Discover Nature Camp' in Summer 2018, but enrollment was not high enough to warrant holding the camp. After-school programming was held at the 21st Century Community Learning Center at Warm Springs K-8 academy and was successful in the Fall and Winter 2018/2019.

Restoration Projects

The MDWC participated in 8 restoration projects between June 2018 and July 2019. With USFS partners, the Ingraham Meadow Restoration Project was implemented in Upper Trout Creek Watershed. Additionally, with USFS partners, the Willow Creek Upland and Riparian Enhancement Project on the Crooked River National Grasslands was completed as a juniper

treatment. This project was under budget so an additional 300 acres were added to the project area. The Fessler Upper Willow Creek Juniper Treatment was implemented as a Small Grant which treated 120 acres of stage 2 and 3 Juniper. The Scabby Hollow Restoration Project was implemented as a Small Grant and included planting riparian vegetation to stabilize banks and promote aggradation in upper Willow Creek. Work on this project was intensive in April with planting activities with a contractor and volunteers. The MDWC partnered with Trout Unlimited to propose a Deschutes River Public Awareness Campaign in collaboration with the Bureau of Land Management. The goal of this project was to promote public awareness on salmon spawning activities. This project did not result in funding but will be pursued in the future. In Addition, at Redband Ranch on Trout Creek, volunteers helped execute riparian restoration planting in Fall 2018. The MDWC began prepping a Small Grant focused on fencing Newbill Creek Headwaters to protect a wet meadow in May 2019. The MDWC also began writing an OWEB Restoration grant for Upper Trout Creek Rehabilitation with USFS partners to improve fish habitat by re-meandering channels and moving large wood into small headwater tributaries of Trout Creek.



Scouting the site of a Beaver Dam Analogue on Campbell Creek.

Monitoring Projects

The MDWC launched a 20-year long-term stream temperature monitoring project at 5 locations in Upper Willow Creek. This project is part of a statewide effort to understand how management activities may improve stream temperatures. This project is funded by the Oregon Department of Agriculture and temperature loggers were installed in Spring 2019. The MDWC

was also a partner in the Pesticide Stewardship Partnership pilot study, where water samples were collected across agricultural areas in Madras to test for pesticides in waterways.

Outreach

The MDWC participated in 5 avenues of outreach between July 2018 and June 2019. The MDWC hosted trail and road clean-ups in and around Madras, hosted a screening of the movie, ‘Beaver Believers’ in April 2019, and hosted informational tables at Bend and Madras Farmer’s markets. In addition, within the Landowner Recruitment in Upper Willow Creek Watershed grant, the MDWC met with landowners in Upper Willow Creek in an attempt to include them in restoration projects. A landowner meeting was held in June 2019 and two landowners signed on for future projects as a result of this outreach.

Conservation Reserve Enhancement Program

In Oregon, CREP partnerships have been successful in enrolling acres in the program with a cumulative total of 41,000 acres as of 2015. Similar to other counties in the state, certain historic and current land uses in Crook, Deschutes and Jefferson counties can lead to degraded riparian areas. CREP is an effective tool that addresses riparian degradation by planning conservation practices in targeted areas and, through CREP technical assistance and monitoring, ensure correct practice implementation.

Number of CREP Contracts currently (as of 2018-2019): 36 landowners enrolled

Goals of CREP:

The goal of this project is to work cooperatively with agricultural producers to voluntarily retire land along streams and other water bodies for the purpose of improving the health of watersheds within the John Day & Deschutes River Basins. Desired outcomes include reducing water temperature to natural levels, reducing sediment loads, reducing nutrient and chemical pollution from agricultural lands adjacent to streams, establishing riparian vegetation, stabilizing stream banks, and restoring stream channel conditions.

Additionally, desired outcomes include landowner satisfaction with the programs, achieving desired outcomes of outreach strategy and positive growth with agency partnerships. These desired goals and outcomes are ultimately for the benefits of conserving water and enhancing fish & wildlife habitat throughout Jefferson, Deschutes and Crook County.

Challenges faced during the 2018-2019 biennium:

During the last biennium several challenges arose that had an effect on landowner participation. Several landowners expressed hesitation of participating in a long-term financial

contract with the government considering political uncertainties. The CREP Planner successfully built trust with many of these landowners and several are currently in the planning stages. Another challenge faced was the inability to enroll new CREP contracts in the first half of 2019 due to the signing of the 2018 Farm bill and the ensuing program freeze (then later the incentive freeze for CP 29 (Marginal Pastureland Wildlife Habitat Buffer)). A large portion of potential CREP projects in Deschutes, Jefferson & Crook County are situated in areas where this CP 29 practice is most suitable. Due to employee turnover of both previous CREP Planners (Mark Goodwin & John Speece) the relationships that had been previously established with landowners required additional time and resources from the new CREP planner. This, along with the program freeze previously mentioned, affected the CREP Planner's ability to develop new contracts. Creating a full time, fully funded position for a single CREP Technician will overcome this challenge by establishing a position where one CREP Planner has undivided attention to establish and maintain relationships with landowners, build community outreach strategies, and plan and implement projects.

Goals for the 2020-2021 Biennium:

Enroll 8 more CREP contracts. With a target of conserving 75 new acres of protected stream ways.

Example of CREP project in central Oregon.



CREP planting 8/17/2010



CREP follow up 8/5/2020

Partners

Thank you to our partners and funding organizations for continued support.

- Bonneville Power Administration
- Children’s Forest of Central Oregon
- Oregon Department of Fish and Wildlife
- Oregon State University Extension Service
- Jefferson County
- North Unit Irrigation District
- Middle Deschutes Watershed Council
- Natural Resources Conservation Service
- Oregon Watershed Enhancement Board
- Oregon Department of Agriculture
- Madras High School Forestry
- Confederated Tribes of Warm Springs
- US Fish and Wildlife Service
- Oregon Department of Forestry
- US Forest Service – Ochoco National Forest



Financial Summary

Statement of Revenues, Expenditures and Changes in Fund Balance Governmental Funds for the year ended June 30, 2019.

Revenues	
Grants	\$599,729
Total Revenues	\$599,729
Expenditures	
Current	
Soil and Water Conservation Programs	\$641,864
Total Expenditures	\$641,864
Net Change in Fund Balance	(\$42,135)
Fund Balance – Beginning of Year	\$145,688
Fund Balance – End of Year	\$102,827
Reconciliation of the Statement of Revenues, Expenditures, and Changes in Fund Balance to Governmental Funds Statement of Activities	
Net Changes in Fund Balance – Governmental Fund	(\$36,183)
Items to Reconcile to Changes in Net Position	
Expenditures	
Capitalized assets reported as expenditures	\$26,251
Depreciation	(\$5,952)
Changes in Net Position – Government-Wide	(\$15,884)

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