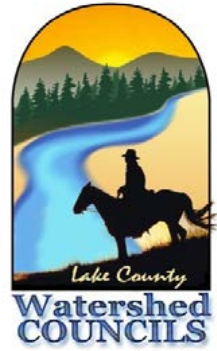


LAKE COUNTY UMBRELLA WATERSHED COUNCIL



ANNUAL REPORT



Our Story

Established in the mid 1990s, five independent Watershed Councils were formed to represent each distinct watershed in Lake County. The Councils (made up of local residents) assisted landowners with watershed projects to improve and promote watershed health. Over time, the Councils merged to become the Lake County Umbrella Watershed Council. With the aid of many partners, the Council plans, secures grant funding, implements, and monitors watershed restoration and enhancement projects.

Our Mission

The Lake County Umbrella Watershed Council strives to promote cooperative watershed restoration across jurisdictional boundaries, to enhance Lake County's watersheds for present and future generations.

Our Lake County Home

Lake County is made up of multiple, diverse watersheds, each of which have characteristics the State of Oregon recognizes as having priority significance. These characteristics provide the foundation for our restoration and enhancement efforts. Understanding and appreciating our working landscape in Lake County, we help design and implement projects that are beneficial to the land, water, and wildlife...but to the landowner as well. We focus on Ridgetop to Ridgetop Restoration.



RIDGETOP TO RIDGETOP RESTORATION

COUNCIL & STAFF

Tom O'Leary- Chair, Silver Lake Community Watershed

Pete Talbott- Secretary/Treasurer, Goose Lake Watershed

John Taylor- Vice Chair, Warner Basin Watershed

Jayna Ferrell- Crooked Creek Watershed

Matt Withers- Upper Sycan Watershed

Jack O'Leary- Chewaucan Watershed

Fiscal Administrator

-Colleen Withers, 541-610-3134

-slidemountainsolutions@gmail.com

Project Manager, Uplands Coordinator

-Autumn Muir, 541-817-5649

-lakecountywsc@gmail.com

Project Manager, Stream & Riparian Coordinator

-Brandi Neider, 541-219-0493

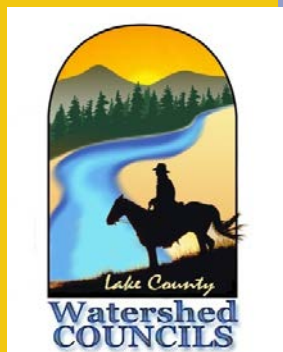
-bdneider23@gmail.com

LCUWC

PO Box 848

Lakeview, OR 97636

Visit us at www.lakecountywsc.com



Find us on Facebook
& Instagram

Photo Credit: Jade Elhardt.

TECHNICAL ASSISTANCE MEMBERS & FUNDING PARTNERS

Federal

- Bureau of Land Management
- US Forest Service
- US Fish & Wildlife
- American Forestry Foundation
- Bureau of Reclamation

State

- Oregon Watershed Enhancement Board
- Oregon Department of Fish & Wildlife
- Oregon Department of Transportation
- Oregon Department of Forestry
- Oregon Department of Agriculture
- Oregon Water Resources Department

Local

- Lakeview Natural Resource Conservation Service
- Lakeview Soil & Water Conservation District
- Oregon State University Extension
- Lake County Resource Initiative
- Klamath-Lake Forest Health Partnership
- Lake County Commissioners
- Lake County Cooperative Weed Management Area

Other/Private

- Open Rivers Legacy Fund
- Desert Fish Habitat Partnership
- Western Native Trout Initiative
- Ducks Unlimited
- Beaver Works Oregon
- Think Wild

SPECIAL THANKS ROGER LINTON

WELCOME JAYNA FERRELL



Roger Linton represented the Crooked Creek Watershed on the Lake County Umbrella Watershed Council since 2009. His resignation in November 2022 marked nearly 14 years of guiding ridgetop to ridgetop restoration efforts.

As a natural resource leader and rancher, Roger has been a major contributor to the Council's growth. He and his wife, Louise, manage their ranch north of Lakeview and have both been involved in multiple watershed restoration efforts in the Crooked Creek valley.

On behalf of the Council, thank you Roger and Louise for over a decade of support and friendship.

Valley Falls native, Jayna Ferrell, has been appointed to represent the Crooked Creek Watershed. As a rancher and former BLM rangeland specialist, Jayna will be an asset to the Council, partners, and landowners.

Jayna and her husband, Justin, ranch in Valley Falls with their two children Wyatt and Hailey.



2022 VALUED CONTRACTORS

/F Livestock & Fencing
Anderson Engineering
ASM Affiliates
Cascade Stream Solutions, LLC
Coyote Moon Enterprises, LLC
DL Reforestation Inc.
Dog Lake Construction
Ethos Global Holdings Limited
Garrett Roseberry
High Desert Electric
Horseshoe Meadow, LLC
Jonathan Squires
Larkmuir, LLC
LR Executive Woods, LLC
Michael Douglas
Mountain View Reforestation, LLC
Pardue Construction, LLC
Quicksilver Contracting Co
Resource Specialists
River Design Group, Inc
Robert Squires
Shannon Theall
Slide Mountain Solutions
Swift Water Design
T.A.Lawson & Sons
Thomas Creek Construction, LLC



Ridgetop to Ridgetop Watershed Management

Ridgetop to Ridgetop planning starts in the upland timber stands through forest thinning and works its way through the landscape to meadows, streams, and lakes below where a variety of restoration techniques can improve watershed conditions, benefitting wildlife, aquatic species, and working landscapes.

Lake County is a unique high desert system that benefits multiple resources. Many of Lake County's restoration efforts are connected to resource priorities established by state organizations like the Oregon Watershed Enhancement Board (OWEB), who provide project funding to improve resource conditions on private land.

Forest Health & Juniper Thinning

Juniper expansion has shown a negative impact on forage production, wildlife habitat, fire cycles, and overall watershed functions. Treatment options are available to reverse this trend. Forest health projects are NOT just limited to juniper removal. Treatment can include pine and aspen stand enhancement as well.

Riparian Area Management

The Lake County Umbrella Watershed Council works with landowners to implement practical, but efficient riparian area restoration strategies. These strategies allow operators to sustain a productive forage community for livestock feed without compromising the riparian area.

Stream Restoration

The health of our streams is a direct reflection of the health of our land. The Lake County Umbrella Watershed Council is committed to helping landowners improve watershed function and stream channel health. Streams connect the mountains to the valleys, the headwaters to the lakes, and the people to the land.

Fish Passage & Screening

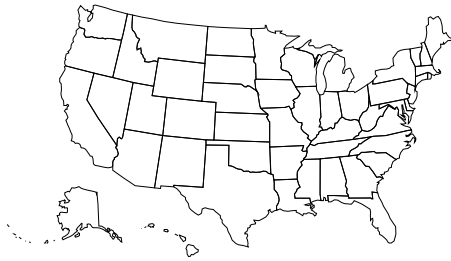
Maintaining water resources for our agriculture community and native fish populations is important to the Lake County Umbrella Watershed Council. Working cooperatively with landowners and agency partners can lead to a win-win scenario where efficient irrigation and watering systems are implemented, while providing fish passage and quality habitat for native fish species.

Education & Outreach

The Council provides education activities for youth and adults throughout Lake County. We connect youth and landowners to experts in the field to provide information about natural resources, watershed function, restoration techniques, and more.

Consultation

Lake County Umbrella Watershed Council Project Managers can help landowners develop a project and connect them to valuable resources. Whether someone already has ideas about his or her land or not, the first step in any watershed restoration or enhancement project is consultation. We are happy to help!



Federal Project \$ Spent:
\$314,025.05



State Project \$ Spent:
\$1,401,422.82



Other Project \$ Spent:
\$193,208.38



Stream & Riparian \$
Allocation:
\$1,350,601.81



Upland & Forest Health
\$ Allocation:
\$506,615.23



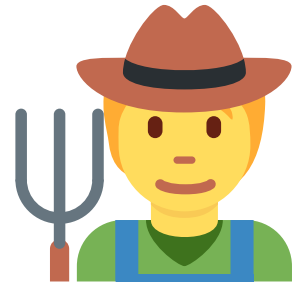
Project Mngmt. \$ Spent:
\$86,790.90
(4.6% of total project \$)



Contracted Staff Wages
& Travel:
\$143,511.13



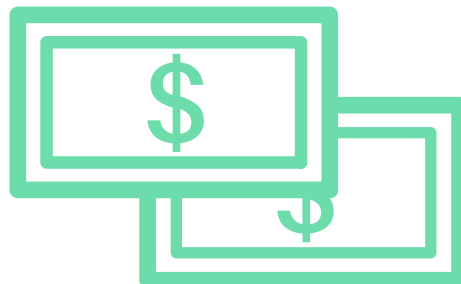
Total Operating \$:
10,254.09 (taxes,
insurance, dues/fees,
supplies, rent)



Landowners Served:
Approx. 127
Landowners Contacted:
Approx. 769



Contractors Hired:
26



**2023 Secured
Funding:
\$6,395,241.61**

*Figures are as of 12.31.2022

2022 PROJECTS

Planning & Design

- Lake County All Lands Restoration Initiative Prescribed Fire TA
- Bullard Canyon Mapping and Inventory TA
- South Warner Mapping and Inventory TA
- Muddy Creek Fish Passage Phase II
- Cox Creek Fish Passage and Screening
- Chewaucan Watershed Assessment
- Chewaucan Streambank Stabilization
- Campbell Mill Aspen and Wetland Restoration
- Drews Creek Fish Passage and Stream Restoration
- Goose Lake Water Conservation Study
- Deep Creek Town Assessment
- Cottonwood Creek Fish Habitat Restoration

Implementation

- Yocum Valley Upland Enhancement (Small Grant Completed)
- Cougar Peak Wildfire Emergency Response (OWEB Completed)
- Muddy Creek Fish Passage & Habitat Enhancement (Riparian Fence)
- Thomas Creek-Amsbaugh Diversion
- Forest Health Engagement (OWEB Completed)
- Lake County All Lands Restoration Initiative Mini FIP Phase 1 (OWEB)
- Summer Lake Wildfire Risk Reduction (BLM, ODFW MDI, USFS RAC)
- Thomas Creek Forest Resiliency (USFS RAC Completed)
- 2021 Post Fire Recovery Cougar Peak and Patton Meadow (OWEB)
- Hadley Creek Upland & Riparian Enhancement (Complete)
- Deep Creek Givans Diversion Fish Passage Phase I (Complete)
- Deep Creek O'Keeffe Diversion Fish Passage (In Progress)
- Deep Creek Middle Diversion Fish Passage (Complete)
- Cogswell Creek Fish Passage and Irrigation Infrastructure (Complete)
- Muddy Creek Fish Passage & Habitat Enhancement (Riparian Fence Complete)
- Thomas Creek-Amsbaugh Diversion Fish Passage (Complete)
- Camas Creek LTPBR (Phase I)
- Three Creeks LTPBR (Phase I)
- Cottonwood Creek LTPBR (Phase I)
- North Warner Habitat Improvement (ODFW MDI)

FOREST HEALTH IMPLEMENTATION PROJECTS

Uplands

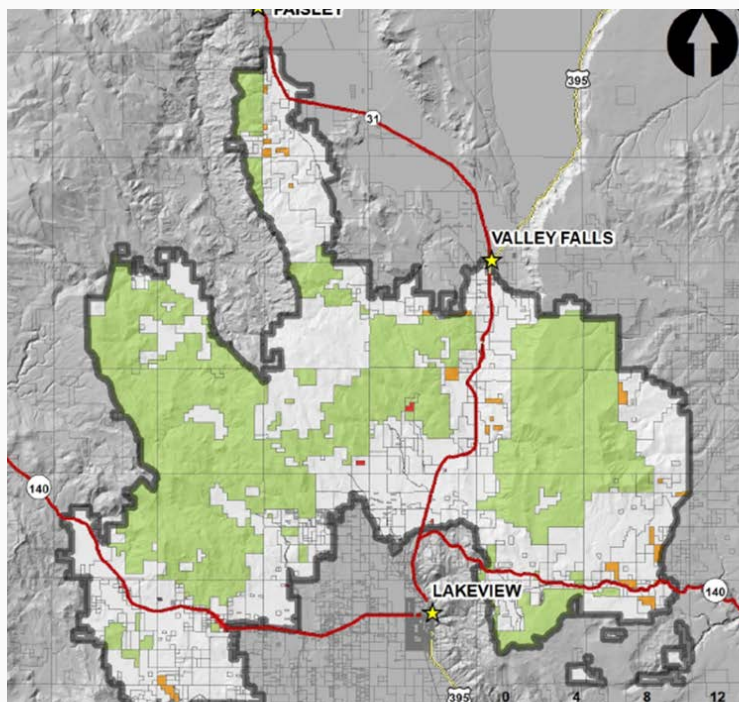


The Lake County All Lands Restoration Initiative Mini Focused Investment Partnership (LCALRI Mini FIP) OWEB grant which highlights the North Warner and Thomas Creek areas located adjacent to each other, includes roughly 278,633 acres. We hope to maintain the forward momentum of forest health improvements in our local landscapes.

The Summer Lake Wildfire Risk Reduction project is being accomplished through multiple grants from the BLM, USFS RAC, and ODFW MDI. This area covers approx. 600 acres of private land that is flanked by 3 wildfire scars. It focuses on conducting thinning treatments to those boundaries to reduce fuels and wildfire risks.

The Thomas Creek Resiliency Project removed encroaching juniper and small diameter conifer for forest health with grants from USFS RAC and NRCS/USFS Joint Chiefs grant.

Continuation of work in the North Warners with another grant from ODFW Mule Deer Initiative for habitat improvement was completed this year and tied into several other past and ongoing forest health efforts to build a large block of treated acres.



2022 Accomplishments

LCALRI Mini FIP

763 acres cut and piled
63 acres still in progress

Summer Lake Wildfire Risk Reduction

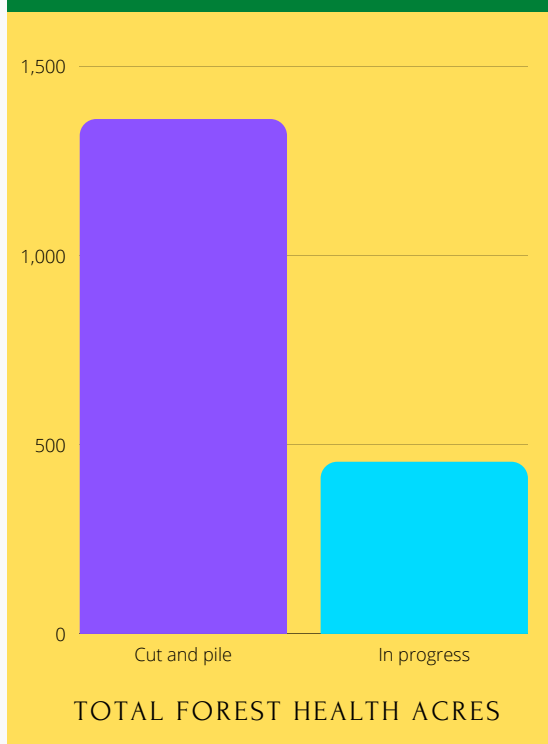
171 acres cut and piled
392 acres still in progress

Thomas Creek Resiliency

192 acres cut and piled

North Warners MDI

235 acres cut and piled



FOREST HEALTH MAPPING AND PLANNING PROJECTS

Uplands



Technical assistance (TA) grants provide an opportunity to prepare and plan for a more in depth restoration or implementation grants. For example, The South Warner Forest Health Mapping and Inventory TA grant from OWEB allowed partners to engage with new landowners for the forestry survey/data collection phase of the project. With the help of our partners at LCRI, we completed mapping and assessment of 23,285 acres of private lands (63% of the total private lands within the project boundary). Efforts are now being dedicated to designing and producing the individual map packets that will be combined into binders with additional educational information and resources for each landowner within the South Warner project area. Workshops and one on one meetings will be planned for the spring with a goal to inform priorities and land management planning for each landowner.

Another OWEB TA grant that we are working on is the LCALLRI Prescribed Fire Planning. We hope to navigate some of the complexities related to planning and conducting prescribed burning for private landowners, including unit layout, identification of control lines, necessary agreements, burn plans, opportunities to burn with adjacent federal agencies, and other protocols associated with the analysis implementation of prescribed fire. We hope this will assist landowners with understanding permitting and liability constraints.

2022 Accomplishments

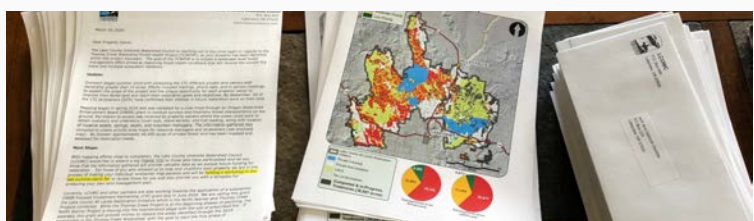
Engagement with landowners in a new project area (South Warners)

Continued mailings, phone calls, one on one meetings

Prescribed Fire Workshop for Private Landowners

Wildfire Risk Reduction Workshop for Private Landowners

Several new landowners interested in conducting treatments on their land



WILDFIRE RESPONSE

Uplands



Photo credit: Jade Elhardt

Between September 2020 and September 2021, three large wildfires (Brattain, Patton Meadow, and Cougar Peak Fires) burned approximately 104,964 acres in Lake County. Although this has been a tremendous loss to the partnership and community, this emphasizes the true reality of how quickly and negatively wildfires can impact our forested landscapes. It is imperative that the remaining unburned portion of the landscape be restored in a timely manner for long-term resilience.

OWEB Emergency Response grants helped to address short-term fire recovery needs generally related to soil stabilization and weed management. More funding opportunities have become available to start to address longer-term fire recovery needs, such as landscape level soil erosion, aquatic habitat alterations and fuels reduction within these fire perimeters. The 2021 Post Fire Recovery OWEB funds will result in 4600 acres and 9.6 stream miles of restoration on private lands within the fire perimeters of Cougar Peak and Patton Meadow.

2022 Accomplishments

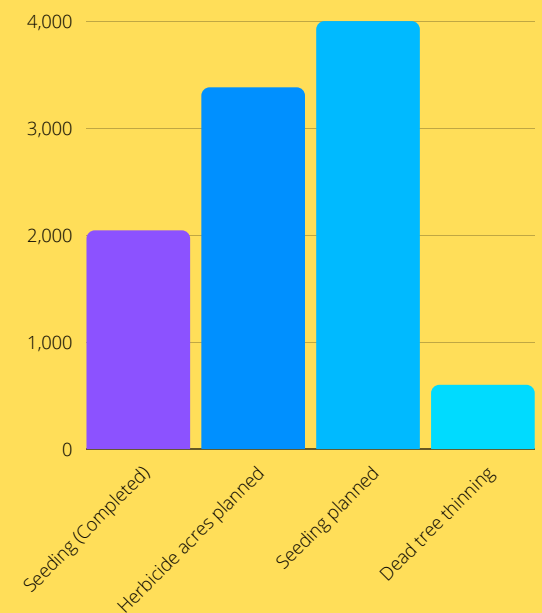
Completed Cougar Peak Wildfire Emergency Response: Seeding effort

Awarded the 2021 Post Fire Recovery Grant for Cougar Peak and Patton Meadow Wildfires

Continue to explore and apply for other landowner post fire assistance grants

Photo monitoring ongoing

ACRES OF TREATMENT FOR COUGAR PEAK & PATTON MEADOW



Fish Passage and Irrigation Infrastructure

STREAM AND RIPARIAN



Cogswell Creek Culvert Replacement /Newly Constructed Takeouts/Habitat Enhancement
Completed December 2022

Deep Creek Middle Diversion Removal/ Pipeline Retrofit/Newly Constructed Takeouts
Completed November 2022



Thomas Creek Amsbaugh Diversion Fish Bypass Channel and Railcar Bridge
Completed October 2022

Deep Creek O'Keeffe Diversion Fish Ladder Baffles to be installed February 2023 and Effectiveness Monitoring to follow.

Low Tech Processed Based Restoration

STREAM AND RIPARIAN

A healthy stream is dynamic with obstacles like rocks and logs. These structural elements create changes in flow and add complexity which support diverse habitats and natural function. Streams starved of structure drain too quickly and relinquish water. Low Tech Processed Based Restoration (LTPBR) is a practice of using simple, low unit-cost, structural additions to mimic functions and initiate processes to restore the stream and riparian.

In 2022 the LCUWC and partners implemented three, phase I LTPBR, projects where a series of Post Assisted Log Structures (PALS) and Beaver Dam Analogs (BDAs) were constructed. PALS are intended to mimic and promote the process of large woody debris accumulation and drive complexity. BDAs are intended to mimic natural beaver dams which slow water and raise the upstream water surface.

Phase II will continue in 2023. A workshop to learn more about LTPBR will be held in the spring for interested landowners and contractors.



Monitoring and Assessment

STREAM AND RIPARIAN



Warner Sucker Effectiveness Monitoring II

The Honey Creek Town diversion was reconstructed with an Obermeyer weir and fish bypass channel in 2021. Deep Creek O'Keeffe diversion is being reconstructed with a concrete fish ladder for Warner sucker passage. The Warner Sucker Effectiveness Monitoring project will assess the passage effectiveness at these fishways through the use of Passive Integrated Transponder (PIT) tagged fish released below the diversion. The determination of successful passage will be through the detection of tagged fish on antennas located upstream of each fishway.

Spring of 2022 - Project Start

Spring of 2023 - Project Continues

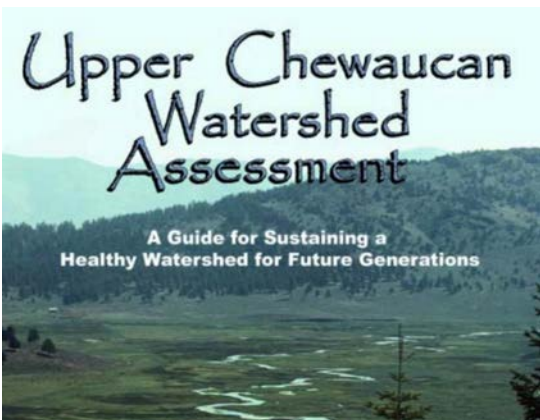


Deep Creek Town Assessment

In 2021 a passage effectiveness monitoring study was conducted by Oregon Department of Fish and Wildlife (ODFW) to assess Warner sucker fish passage at the newly constructed Town Diversion rock ramp fishway. Successful upstream passage was documented. The study detected a couple instances of suckers entering the irrigation ditches. Suckers that enter the Town irrigation ditch may not be able to pass back upstream through the diversion headgate at high flows. The Town Assessment will be conducted to determine passage and screening needs to meet Warner sucker recovery criteria.

December 2022 - Funded

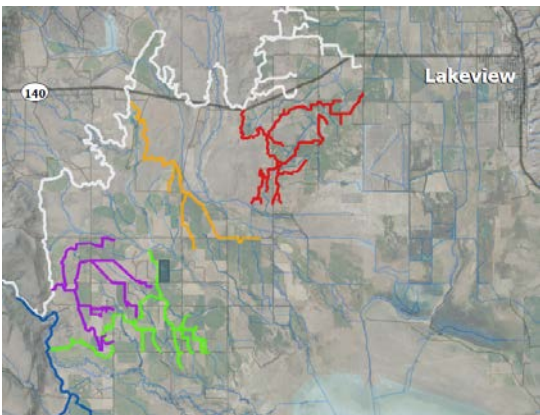
January 2023 - Project Start



Upper Chewaucan Watershed Assessment

The current watershed assessment is 25 years aged and does not reflect the restoration work completed, nor does it represent the most current conditions of the watershed. An updated assessment of the Upper Chewaucan Watershed and associated nine sub watersheds is currently being conducted with the goal of providing documentation on previous restoration projects, an analysis on existing conditions, limiting factors, priorities, and recommended restoration treatments.

February 2022 - Project Start



Goose Lake Basin Water Conservation Study

The study will develop current geographic information for the irrigation network, assess existing water losses and potential water savings, prioritize water conservation opportunities, and incorporate a planning process to determine Lakeview Water User's preferred alternatives for system modernization. The study will provide water users with a prioritization plan for future water conservation and serve as the foundation for a System Improvement Plan.

August 2022 - Funded

December of 2022 - Project Start

Planning and Design

STREAM AND RIPARIAN

Cox Creek Fish Passage and Screening
Watershed: Goose Lake
Status: Funded - Construction Planned for 2023

Muddy Creek Fish Passage Phase II
Watershed: Goose Lake
Status: Funded - Construction Planned for 2023

Cottonwood Creek Fish Habitat Restoration
Watershed: Goose Lake
Status: 75% Funded

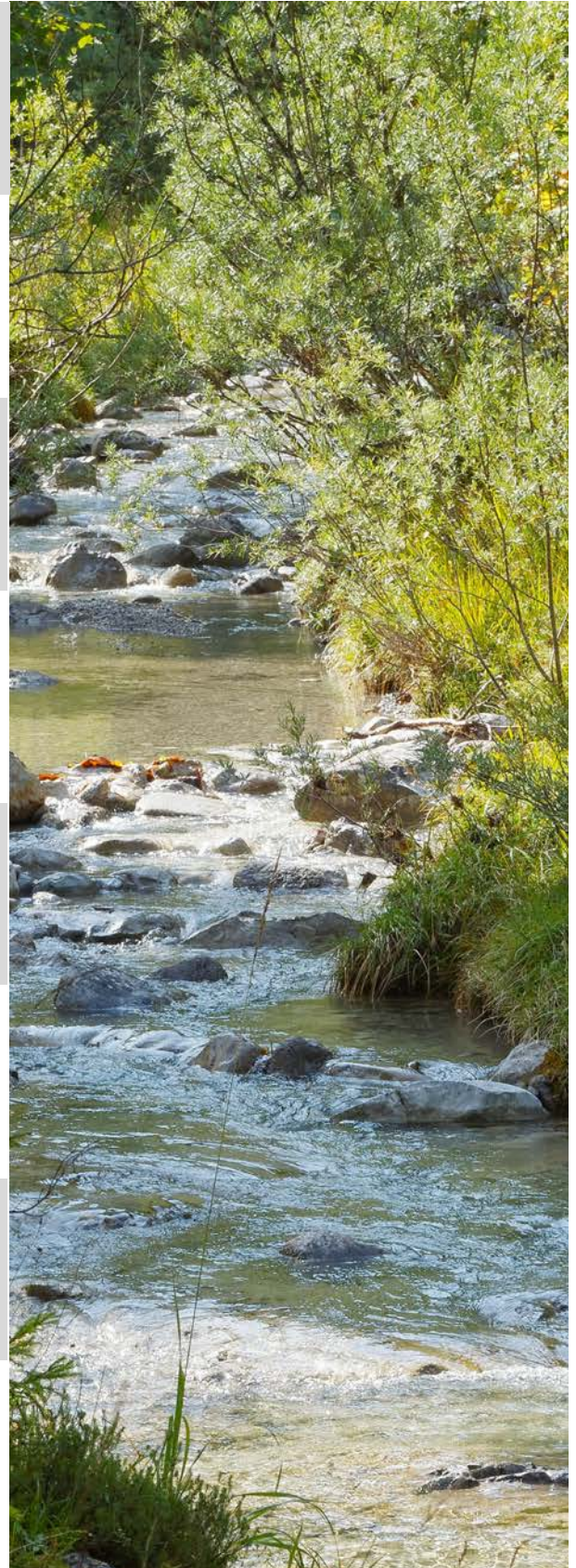
Drews Creek Fish Passage and Stream Restoration
Watershed: Goose Lake
Status: Seeking Funds

Chewaucan Streambank Stabilization
Watershed: Abert
Status: Funded - Construction Planned for 2023

Cambell Mill Aspen and Meadow Enhancement
Watershed: Abert
Status: Funded - Construction Planned 2023

Twentymile Creek MC Diversion Automation
Watershed: Warner
Status: Planning and Design in Progress

Deep Creek Givans Diversion Phase II
Watershed: Warner
Status: Planning and Design in Progress



SMALL GRANTS



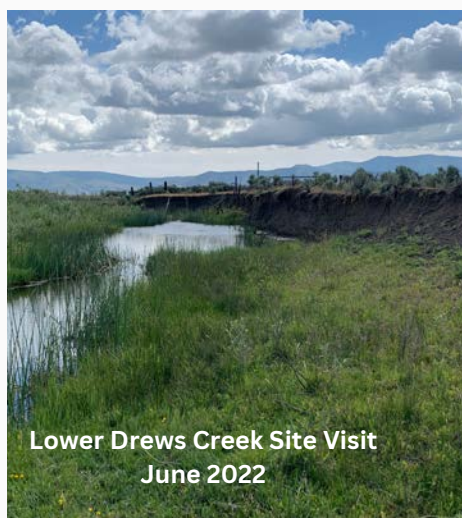
Photo credit: Jade Elhardt

The Small Grant Program is a competitive program funded by the Oregon Watershed Enhancement Board that awards \$15,000 for on the ground restoration - primarily on private lands. The program allows landowners to become familiar with the granting and restoration process while focusing on specific watershed improvements on their property. These projects must meet the criteria for priority watershed concerns such as:

- Instream Process and Function
- Riparian Process and Function
- Wetland Process and Function
- Upland Process and Function Water Quality/Irrigation Efficiency
- Road Impact Reduction Urban Impact Reduction



Hadley Creek Willow Staking
March 2022



Lower Dreads Creek Site Visit
June 2022

2022 Projects

Dreads Gap Upland Enhancement Project (Complete)

Hadley Creek Upland and Riparian Enhancement Project (Complete)

Poirier Upland Enhancement Project (Complete)

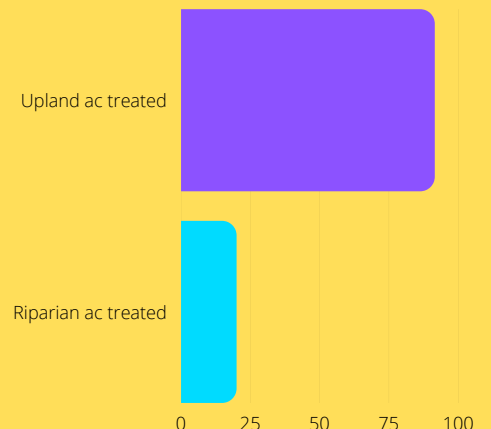
LeGuax Upland Enhancement Project (Complete)

Doolittle Upland Enhancement Project (Complete)

Yocum Valley Upland Enhancement Project (Complete)

Lower Dreads Creek Habitat Enhancement (In Progress)

Dry Creek Off-Site Water Development (Pending)

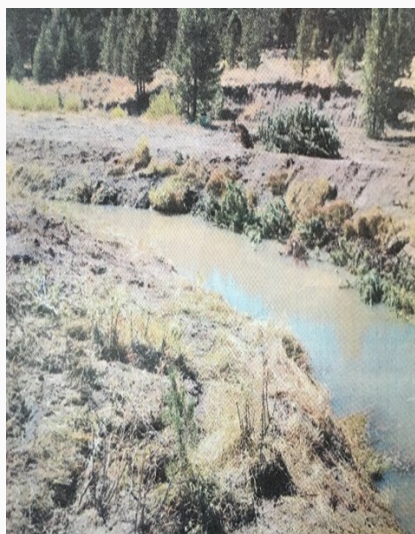


MONITORING OUR WORK



Post implementation monitoring and reporting is required for all Oregon Watershed Enhancement Board restoration grants. Post monitoring provides insight and impact of the project over a 3 – 5 year period and is an effective way to determine if the project continues to meet initial goals. Post monitoring also allows Restoration Practitioners to learn from successful and unsuccessful projects, providing valued knowledge as new projects are developed.

In 2022 the LCUWC reported on ten past restoration projects across the County. Pre and post photos are captured at selected points of reference to demonstrate change over time.



Upper Thomas Creek 2017



Upper Thomas Creek 2022



Upland Before



Upland After

Monitoring Status

North Warner Forest Health I & II

EFM Upland Enhancement

Brattain Wildfire Response

Cougar Peak Wildfire Response

LeGaux Upland Enhancement

Poirier Upland Enhancement

Doolittle Upland Enhancement

Yocum Valley Upland Enhancement

Crooked Creek Restoration Phase IV

Upper Thomas Creek Restoration
Phase III

10

**Monitoring Reports
in 2022**

DEVELOPED IN 2022 PENDING AWARDS



The Lake County Umbrella Watershed Council project managers are constantly developing and planning for future projects. Often times these opportunities arise from landowners interactions and request for assistance. Other times funding opportunities become available unexpectedly from legislative decisions. The LCUWC staff are committed to capitalizing on as many grant applications and funding opportunities that we have capacity for.

Our ever increasing projects help to ensure that Lake County landowners are getting the financial assistance and technical support that they need. Like many other small rural communities in Eastern Oregon, Lake County is heavily reliant on natural resources and the relationships between the timber and ranching industry, government and state agencies, non-governmental partners, and private landowners for economic stability.

Stream and Riparian and Upland restoration activities can create considerable economic activity and jobs, which is significant for our small, rural communities.

Pending Applications

Lake County All Lands
Restoration Initiative Mini
FIP Phase 2

Summer Lake All Lands

Drews Creek Fish Passage
and Stream Restoration

Dry Creek Off-Site Water
Development



EDUCATION & OUTREACH

Through grants, projects, and partnerships, the Council hosted the following events:

Daly Middle School-Beaver Believer Presentation

Weeds & Watersheds Annual Gathering

Paisley High School Riparian Enhancement Willow Planting

Union Elementary Native Redband Trout Field Trip-Muddy Creek

North Lake Junior High "Watershed Day"

Union 4-H Garden Camp-Willow Starts

KLFHP Field Day- Chiloquin

Prescribed Fire Workshop for Private Landowners

Lake County Commissioners Presentation

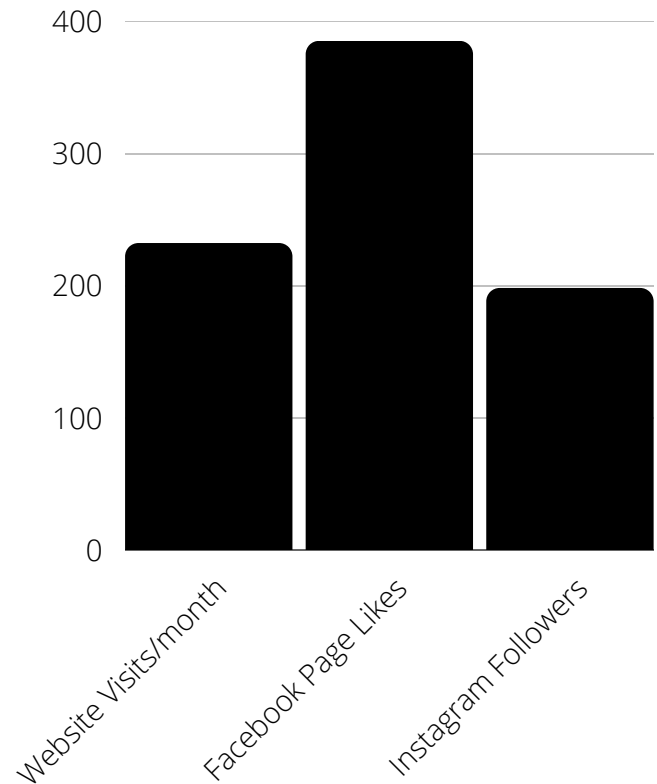
Union Outdoor School

North Lake Outdoor School

Beavers on Working Lands Workshop-North Lake

Daly Middle School & Lakeview High School Beaver Dam Analog Implementation

Summer Lake Wildfire Risk Reduction Workshop



Students help install Beaver Dam Analogs in Camas Creek.



EDUCATION & OUTREACH



Beavers on Working Lands
Workshop-Silver Lake

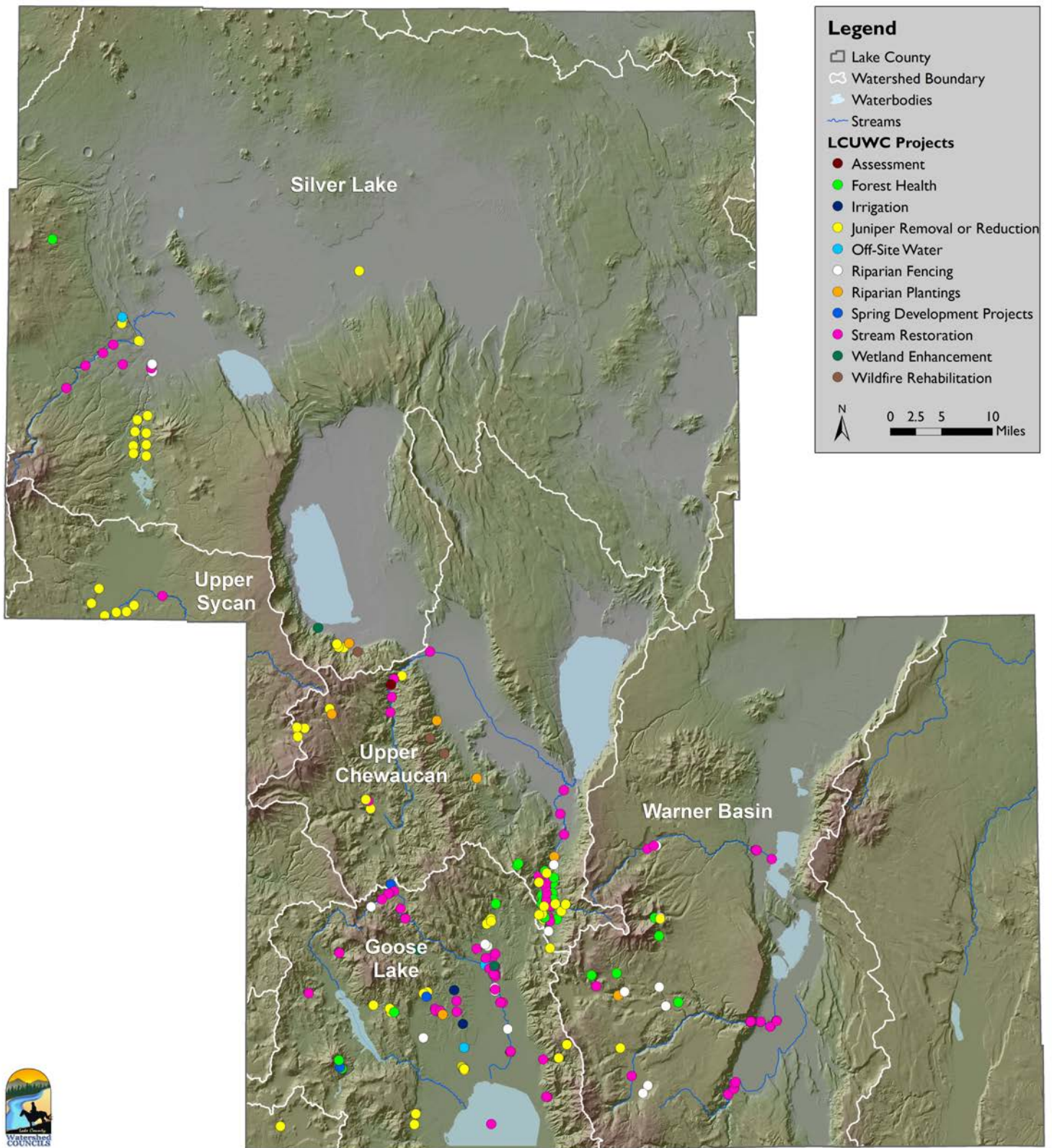


Union Elementary Outdoor
School-Dog Lake



Summer Lake Wildfire Risk
Reduction Workshop

Lake County Umbrella Watershed Council Projects



River Design Group Inc. 2019/06/23 Data source: Elevation - NED; Hydrography - 1:40,000

Since 2004, the Lake County Umbrella Watershed Council has completed over 150 restoration projects county-wide. Map courtesy of River Design Group. Created in early 2021 (updated bi-annually)

