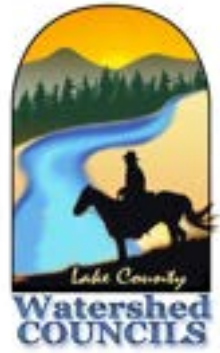


LAKE COUNTY UMBRELLA WATERSHED COUNCIL



ANNUAL REPORT



2023

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

Watershed Assistant

-Riane Miles, 503-302-6691

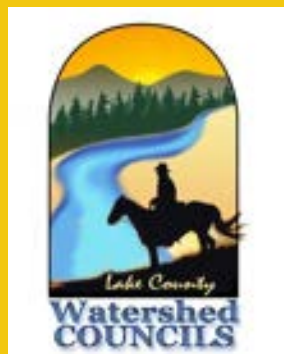
-lakeco.watersheds@gmail.com

LCUWC

PO Box 848

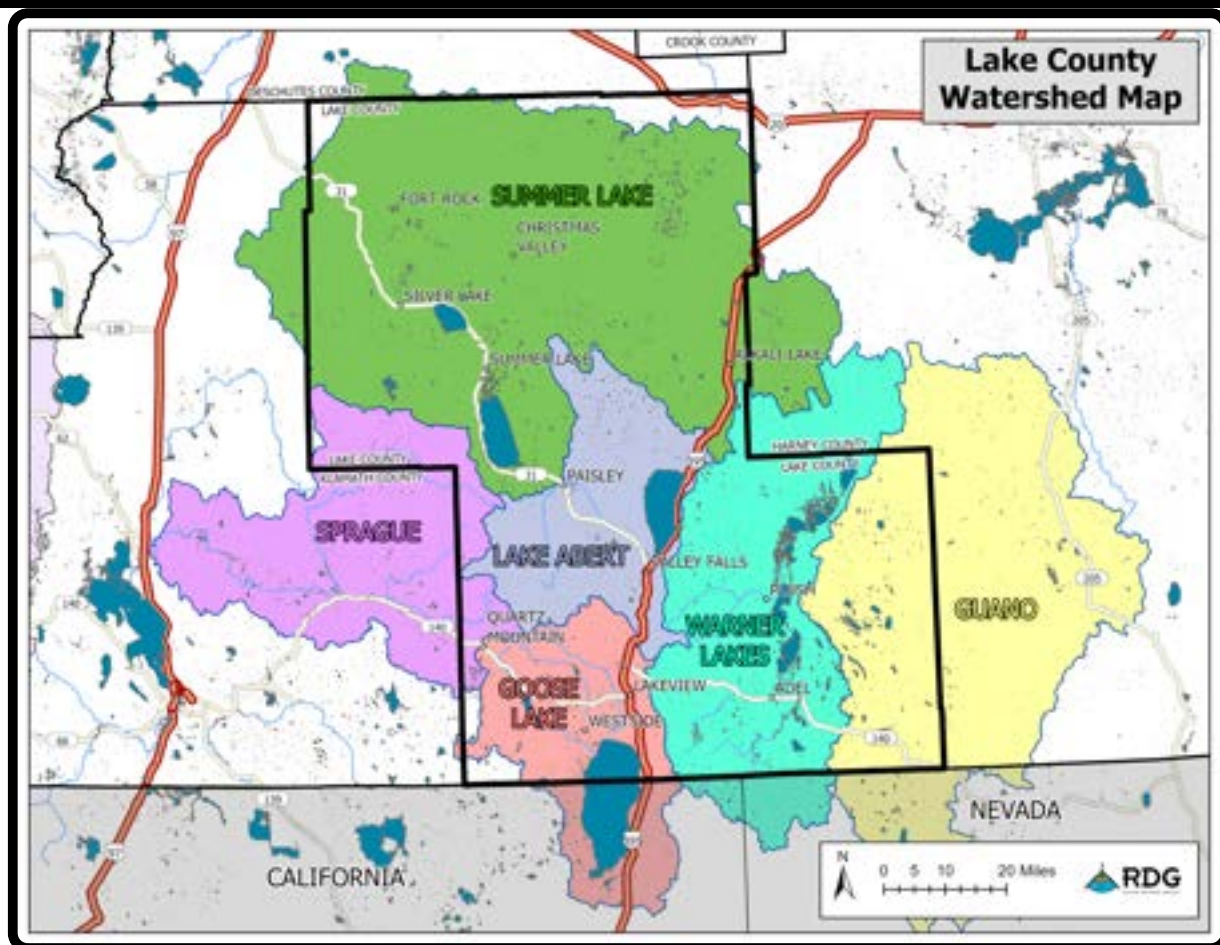
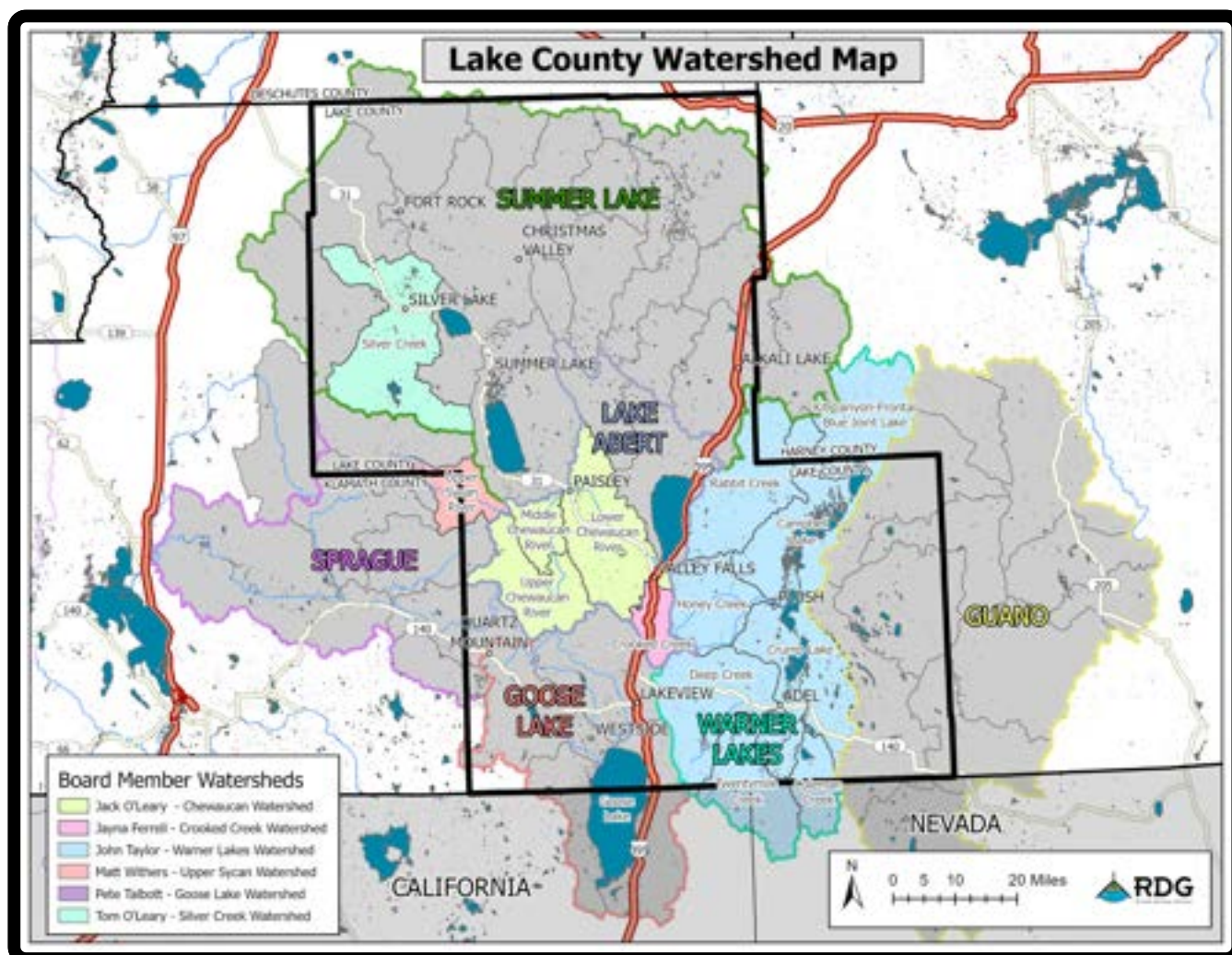
Lakeview, OR 97636

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
- Lake County Community Foundation

Other/Private

- Open Rivers Legacy Fund
- Desert Fish Habitat Partnership
- Western Native Trout Initiative
- Ducks Unlimited
- Resource Legacy Fund

WELCOME RIANE MILES AS THE WATERSHED ASSISTANT



Riane was hired in March of 2023 as our Watershed Assistant! Riane coordinates education and outreach projects as well as provides support in grant management and field work. She is also working as a project manager on some of our small grant projects.

Riane has a Master's and Bachelor's Degree from Oregon State University. She came from Silverton, OR where she was previously a high school Business Teacher and FBLA Adviser for 6 years. In 2022, she and her husband, Andrew Miles, moved to the Christmas Valley area with their 1 month old son to be more involved in her husband's family farming operations. In addition to working part-time as a contractor for the Lake County Umbrella Watershed Council, Riane operates equipment and helps with day-to-day farming operations during the farming season.



In their spare time, Riane and Andrew enjoy country line and swing dancing. They have taught lessons on several occasions. Riane also enjoys traveling - she has visited 48 out of the 50 US states and backpacked through Italy in college!

2023 VALUED CONTRACTORS

Anabranch Solutions, LLC
ARM Initiatives
ASM Affiliates
Cascade Stream Solutions, LLC
Chuck Kelley
Coyote Moon Enterprises, LLC
Dave's Tree Service, LLC
David Halter
DL Reforestation Inc.
Ethos Global Holdings Limited
Fosters Natural Resource Contracting
Horseshoe Meadow, LLC
John Albertson
Nils Martinsson
Ken Kloster
Larkmuir, LLC
Leading Edge Aviation
LR Executive Woods, LLC
Michael Douglas
Mountain View Reforestation, LLC
Northwest Electric & Excavation Inc.
O'Leary Equipment
Pardue Construction, LLC
SC Ranch LLC
Resource Specialists
Slide Mountain Solutions
Thomas Creek Construction, LLC
TWC Corp.



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:
\$503,596.35



State Project \$ Spent:
\$1,451,577.65



Other Project \$ Spent:
\$105,023.21



Stream & Riparian \$
Allocation:
\$804,129.72



Upland & Forest Health
\$ Allocation:
\$515,672.25



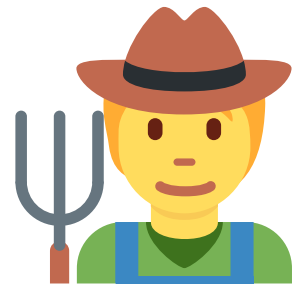
Project Mngmt. \$ Spent:
\$119,065.91
(5.8% of total project \$)



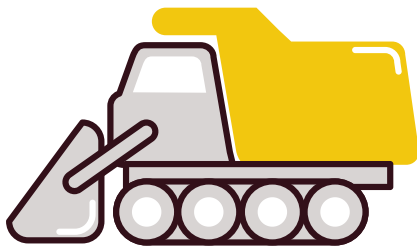
Small Grant Program:
\$51,386.00



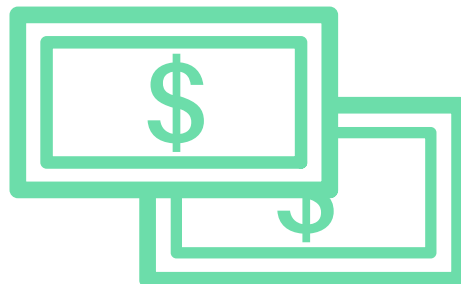
Post-Wildfire Project \$ Spent:
\$388,858.15



Landowners Served:
Approx. 142
Landowners Contacted:
Approx. 619



Contractors Hired:
27



**2024 Secured
Funding:
\$5,795,322.79**

*Figures are as of 12.31.2023

2023 PROJECTS

Planning & Design

- Camas Creek Instream and Floodplain Enhancement (Phase II)
- Campbell Mill Aspen and Wetland Restoration
- Chewaucan Watershed Assessment
- Chewaucan Streambank Stabilization
- Cottonwood Creek Fish Habitat Restoration
- Cox Creek Fish Passage and Screening
- Deep Creek Town Assessment
- Drews Creek Fish Passage and Stream Restoration
- Goose Lake Water Conservation Study
- Lake County EQIP Flood-irrigation Infrastructure Engineering Support
- Lake County All Lands Restoration Initiative Prescribed Fire TA
- South Warner Mapping and Inventory TA

Implementation

- 2021 Post Fire Recovery Cougar Peak and Patton Meadow (In Progress)
 - Post Fire LTPBR Phase I: Pine/Willow/Muddy/Mesman (Complete)
- Camp Creek Crossing Bridge Replacement (Complete)
- Cottonwood Creek LTPBR Phase I (Complete)
- Cox Creek Low-Water Crossing (Complete)
- Crooked Creek Streambank Stabilization (Complete)
- Deep Creek O'Keeffe Diversion Fish Passage (Complete)
- Drake Creek Upland Enhancement (In Progress)
- Kloster Upland Enhancement (Complete)
- Lake County All Lands Restoration Initiative Mini FIP Phase 1 (Completed)
- Lake County All Lands Restoration Initiative Mini FIP Phase 2 (In Progress)
- Lake County All Lands Restoration Initiative Prescribed Fire Implementation (In Progress)
- Lower Drews Creek Habitat Enhancement (Complete)
- Muddy Creek Fish Passage Phase II (Complete)
- Mule Deer Enhancement within the Goose Lake Basin (In Progress)
- Summer Lake Wildfire Risk Reduction (Completed)
- Thomas Creek Forest Health (Complete)
- Three Creeks Wet Meadow Enhancement Phase II (Complete)
- Wallowa Resources sub grant (In Progress)
- Zarozinski Upland Enhancement (In Progress)

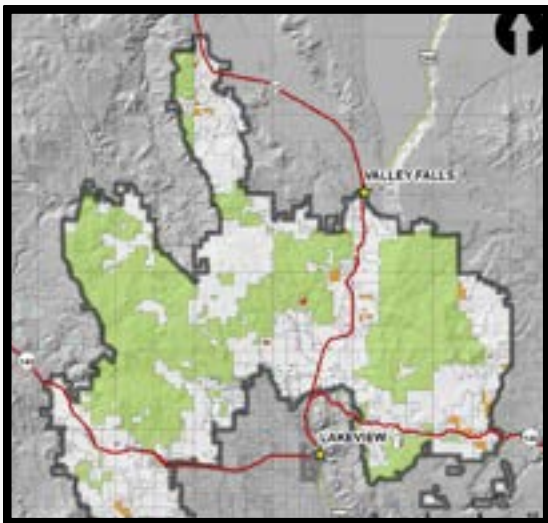
FOREST HEALTH IMPLEMENTATION PROJECTS

Uplands

The Lake County All Lands Restoration Initiative Mini Focused Investment Partnership (LCALRI Mini FIP) Phase 1 and Phase 2 grants awarded by OWEB highlights the North Warner and Thomas Creek areas located adjacent to each other, includes roughly 402,423 acres. We hope to continue the forward momentum of forest health improvements on multiple parcels of private lands.

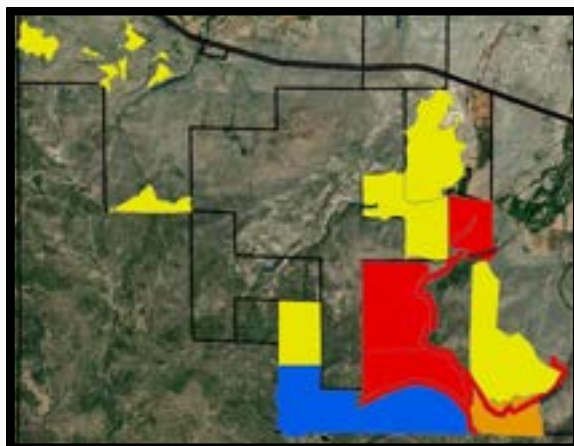
The Summer Lake Wildfire Risk Reduction project was accomplished through multiple grants, the last being from the BLM. It focuses on conducting thinning treatments and juniper reduction to reduce fuels and wildfire risks.

The Thomas Creek Forest Health Project removed encroaching juniper from a meadow system with a grant from USFS RAC.



The Lake County All Lands Restoration Initiative Landscape

The Summer Lake Wildfire Risk Reduction Landscape



2023 Accomplishments

LCALRI Mini FIP Phase 1

Final 57.55 acres cut and piled
268.9 acres of piles burned or removed

LCALRI Mini FIP Phase 2

323.3 acres cut and piled

Summer Lake Wildfire Risk Reduction

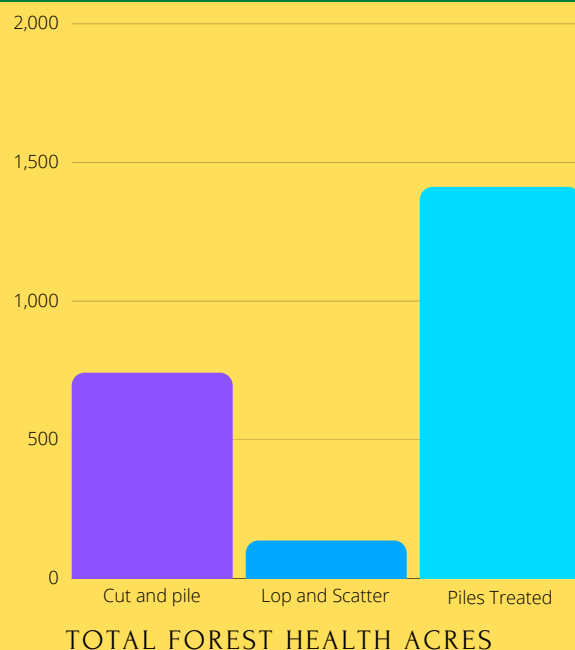
333.55 acres cut and piled
136.91 acres lop and scattered

Thomas Creek Forest Health

Final 27.5 acres cut and piled

Previous grants (NWFHP II, ODFW MDI, and Small Grants) treatment update

1143 acres of piles burned



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. 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 LCARLI 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.

2023 Accomplishments

Continued engagement with landowners in South Warners

Continued mailings, phone calls, one on one meetings

Prescribed Fire meetings and tours with partners and landowners

Wildfire Risk Reduction Tour for partners and landowners

Meetings and consultations with several new landowners interested in conducting treatments on their land



South Warner TA Landscape

LCARLI Prescribed Fire Planning TA outreach development



WILDFIRE RECOVERY

Uplands

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 100's of acres and 9.6 stream miles of restoration on private lands within the fire perimeters of Cougar Peak and Patton Meadow.

Proposed Contour Felling Site



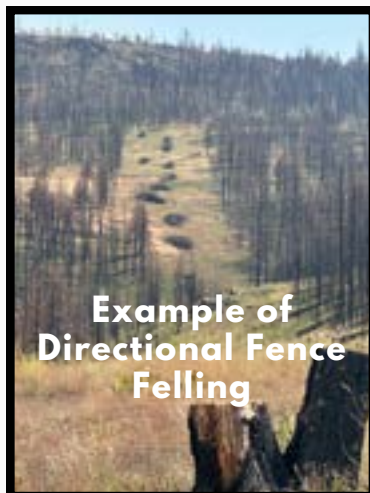
Weeds before herbicide



Weed Washing Station



Example of Directional Fence Felling



2023 Accomplishments

Uplands

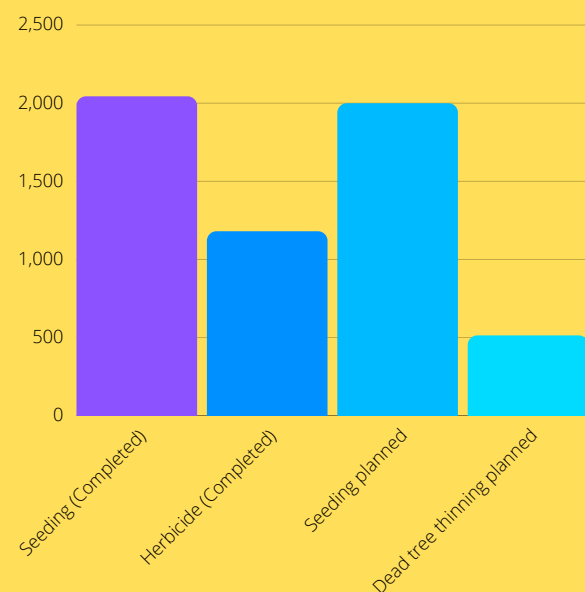
Weed washing station ordered and delivered

Allocations, bid tours, and contracting for contour felling and directional fence felling completed

1180.5 acres of aerial and ground herbicide applications applied

Inspections and photo monitoring ongoing

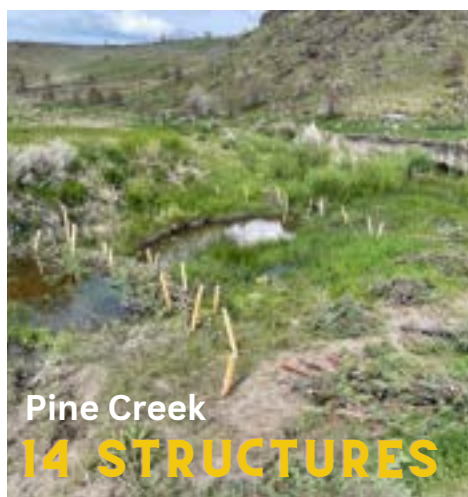
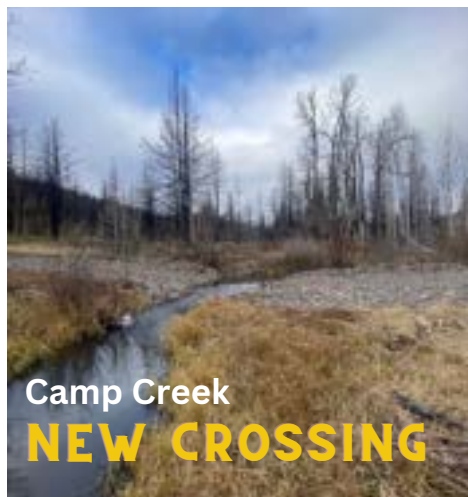
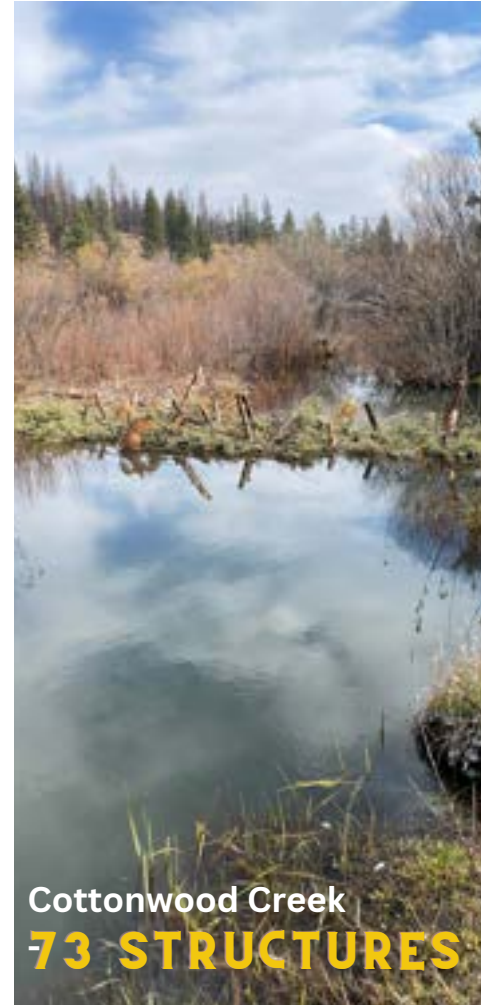
UPLAND ACRES OF TREATMENT FOR COUGAR PEAK & PATTON MEADOW



Wildfire Recovery

STREAM AND RIPARIAN

The goal of the Cougar Peak and Patton Meadow Post-Fire LTPBR Project is to mitigate the negative effects of post-fire sedimentation and channel incision, and to promote natural fluvial processes and ultimately lead to the development a healthy and dynamic aquatic ecosystem. Further incision and habitat homogenization can result from wildfire disturbances and their associated runoff pulses. Simplified channels that lack instream wood, log jams, or beaver dams serve as a 'bowling alley' for flood pulses. Post-wildfire runoff offers a brief window of opportunity for stream restoration (action) or potential for further habitat degradation (no action).



Fish Passage and Irrigation Infrastructure

STREAM AND RIPARIAN



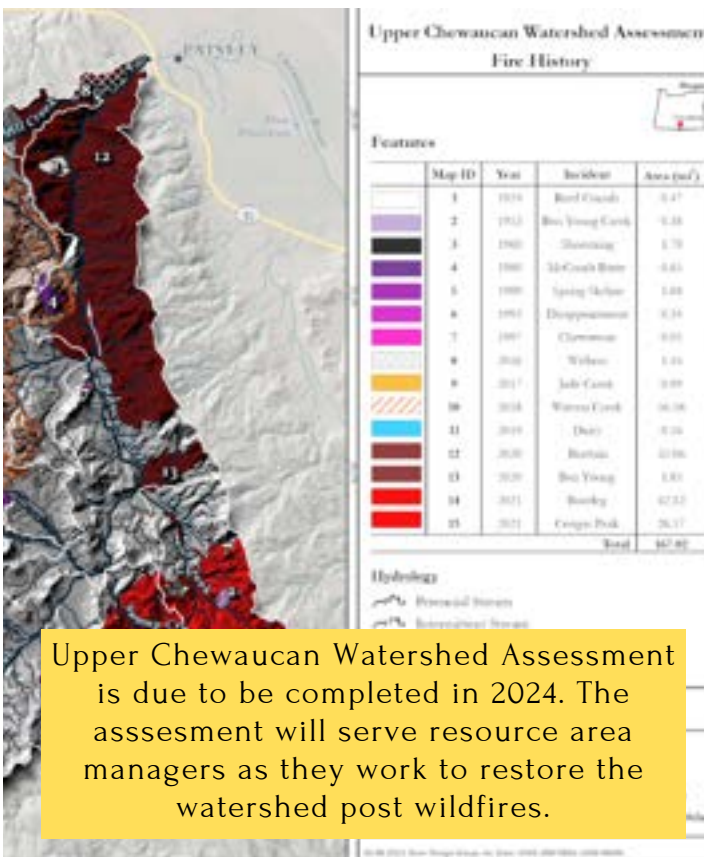
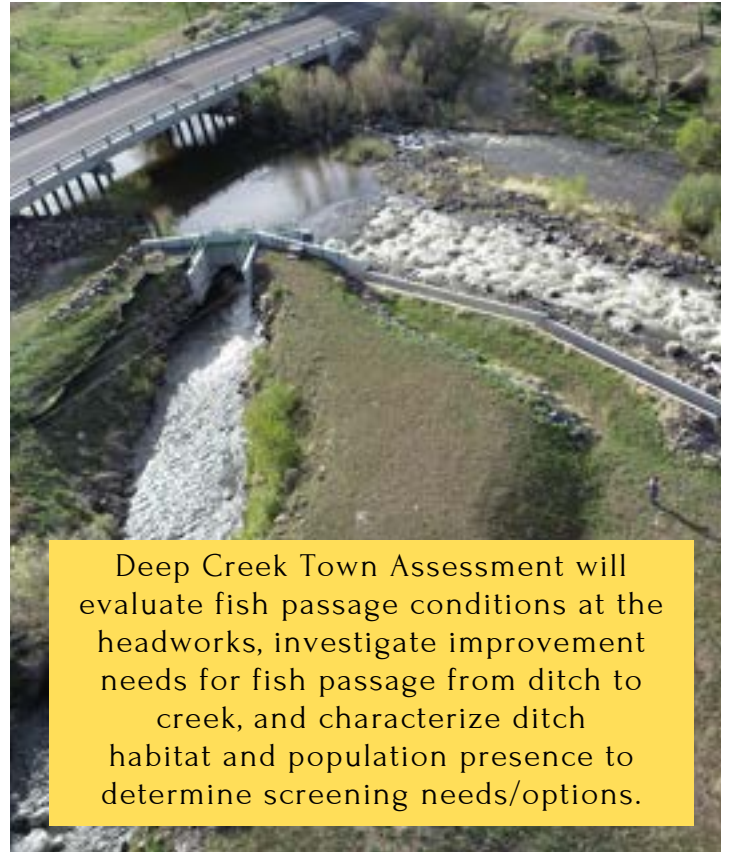
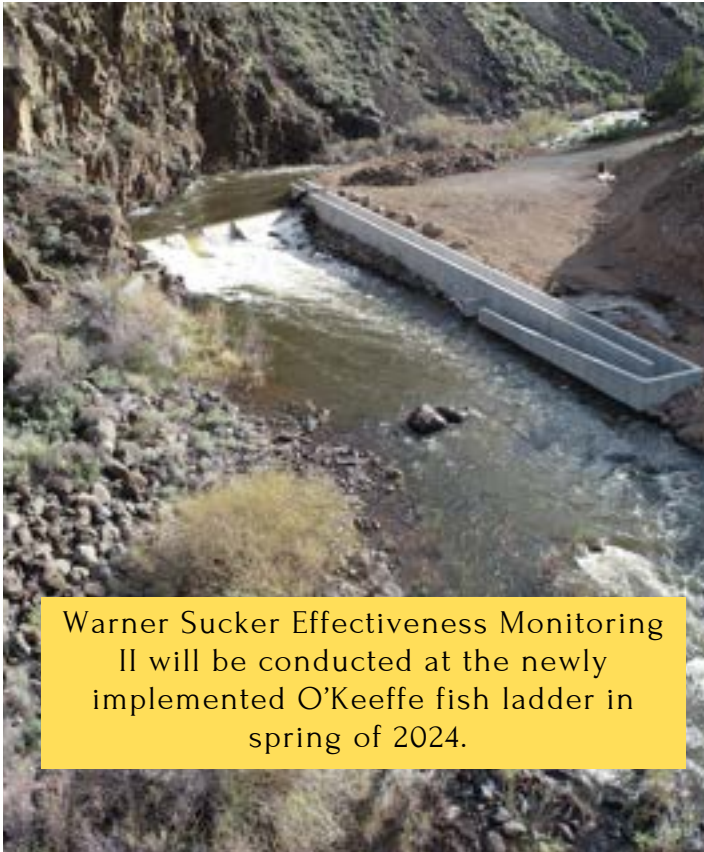
Muddy Creek Fish Passage Phase II - Completed in November 2023, the project connects 6 miles of the downstream system to Juniper Reservoir and an additional 6 miles of upstream habitat.



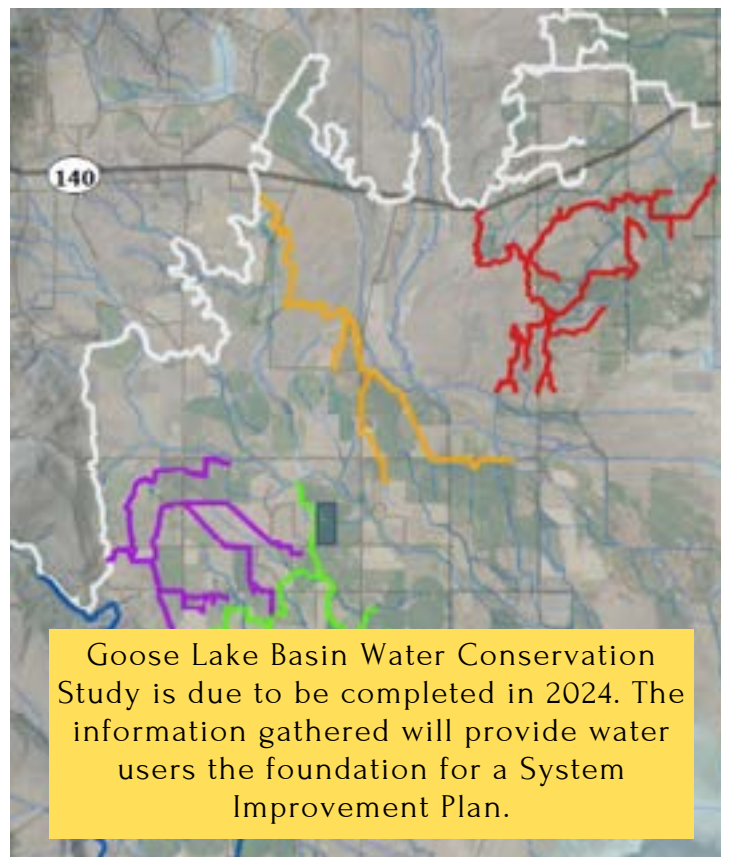
Deep Creek O'Keeffe Diversion Fish Ladder: Completed in November of 2023, the project is the fifth irrigation diversion on Deep Creek that has been implemented to restore fish access upstream.

Monitoring and Assessment

STREAM AND RIPARIAN

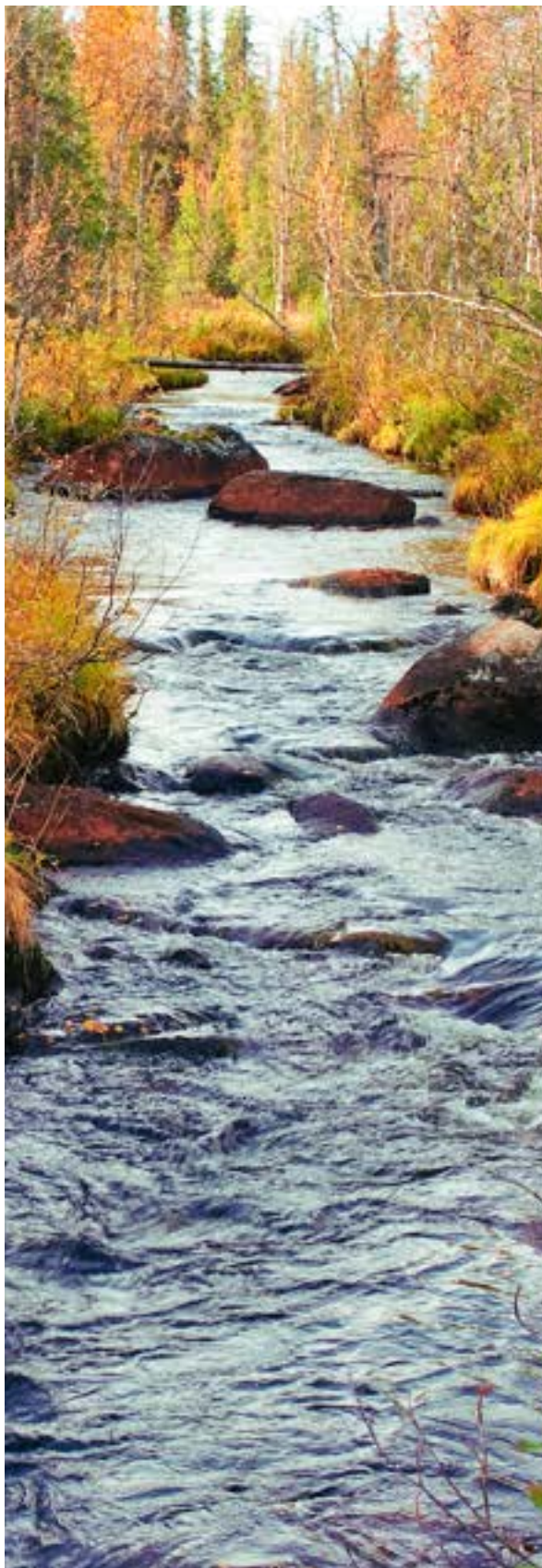


Upper Chewaucan Watershed Assessment is due to be completed in 2024. The assesment will serve resource area managers as they work to restore the watershed post wildfires.



Restoration Implemenation Schedule

STREAM AND RIPARIAN



GOOSE LAKE WATERSHED

PROJECTED IMPLEMENTATION

Cox Creek Fish Passage and
Screening 2024

Cottonwood Creek Fish Habitat
Restoration 2024

Cottonwood Creek LTPBR Phase II 2024

Drews Creek Fish Passage and
Stream Restoration 2024/25

Three Creeks Wet Meadow
Enhancement Phase III 2024

ABERT LAKE WATERSHED

PROJECTED IMPLEMENTATION

Cambell Mill Aspen and Meadow
Enhancement 2024

Dairy Creek Streambank
Stabilization 2024

WARNER LAKES WATERSHED

PROJECTED IMPLEMENTATION

Deep Creek Givans Diversion Fish
Passage Phase II 2025

Twentymile Creek MC Diversion
Modification 2025

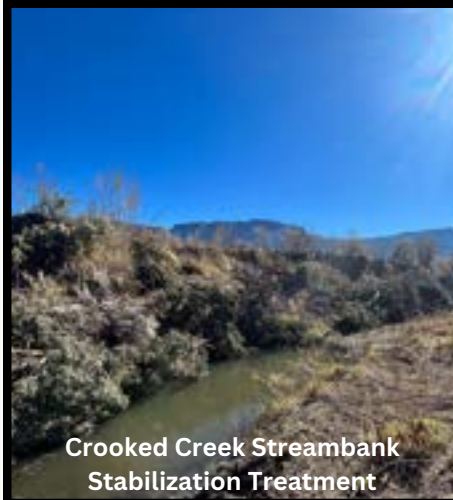
Camas Creek Beaver Dam Analogs
Phase II 2024

SMALL GRANTS

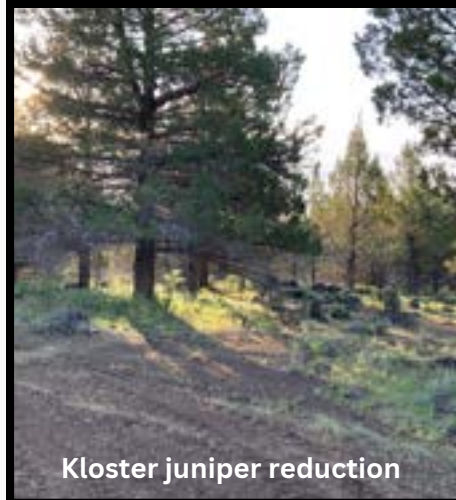


The Small Grant Program is a competitive program funded by the Oregon Watershed Enhancement Board that awards \$15,000 for on the ground restoration - primarily on private lands. The program allows landowners to become familiar with the granting and restoration process while focusing on specific watershed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

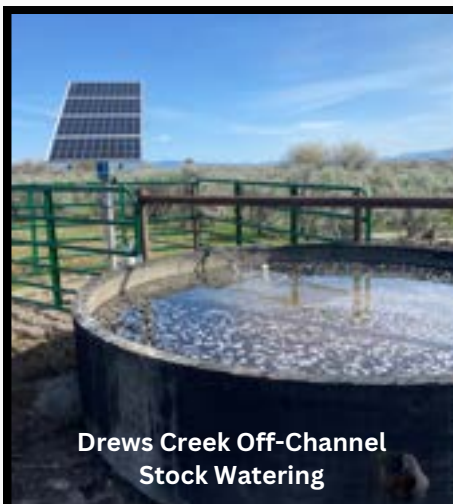
- Instream Process and Function
- Riparian Process and Function
- Wetland Process and Function
- Upland Process and Function
- Water Quality/Irrigation Efficiency
- Fish Passage
- Road Impact Reduction
- Urban Impact Reduction



Crooked Creek Streambank Stabilization Treatment



Kloster juniper reduction



Drews Creek Off-Channel Stock Watering



Zarozinski dry pond with encroaching shrubs

2023 Projects

Crooked Creek Stream Restoration (Complete)

Drews Creek Habitat Enhancement (Complete)

Kloster Upland Enhancement (Complete)

Drake Creek Upland Enhancement (In Progress)

Zarozinski Upland Enhancement (In Progress)



1 Mile of Riparian Area Treated

25 acres of Upland Area Treated

112 acres of Upland Planned

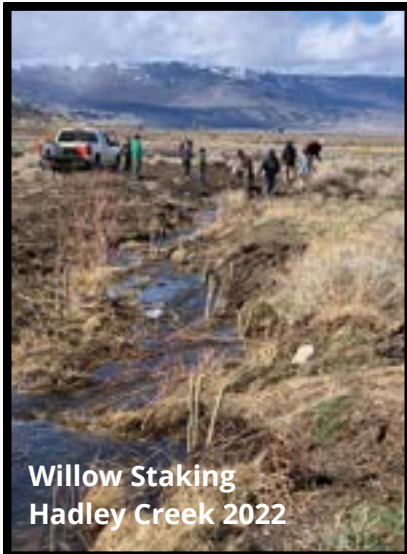


MONITORING OUR WORK



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 2023 the LCUWC reported on nine past restoration projects across the County. Pre and post photos are captured at selected points of reference to demonstrate change over time.



**Willow Staking
Hadley Creek 2022**



Upland post fire 2022



**Willow Staking Results
Hadley Creek 2023**



Upland post fire 2023

Monitoring Status

North Warner Forest Health I & II

EFM Upland Enhancement

Brattain Wildfire Emergency Response

Cougar Peak Wildfire Emergency
Response

ODFW North Warners MDI

ODFW Summer Lake MDI

Elder Creek Fish Passage

Maxwell Upland Enhancement

Muddy Creek Fish Passage and
Habitat Enhancement Phase I

Hadley Creek Riparian
Enhancement

10

**Monitoring Reports
in 2023**

DEVELOPED IN 2023 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 Focused
Investment Partnership

OWEB

Summer Lake All Lands
BLM

Summer Lake Slash
Management

OWEB

Cox Flat Stage Zero
Planning and Design

OWEB

Lake County Meadow
Resilience Conservation
Engagement

OWEB

Upper Chewaucan
Watershed Planning and
Design- BOR WaterSMART
Grant

Bureau of Reclamation
WaterSMART Program

Fish Passage and Aquatic
Habitat Restoration: Cox
Creek, Cottonwood Creek,
Drews Creek

Private Forest Accord

EDUCATION & OUTREACH

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

Weeds & Watersheds Annual Gathering

Field Trip for Lakeview HS Earth Science Class Highlighting Irrigation Projects & Endemic Fish at 4 Project Sites

Led Educational Station at World Migratory Bird Day for Lakeview 3rd Graders

Lake County Commissioners Presentation

Union Outdoor School

North Lake Outdoor School

Paisley Outdoor School

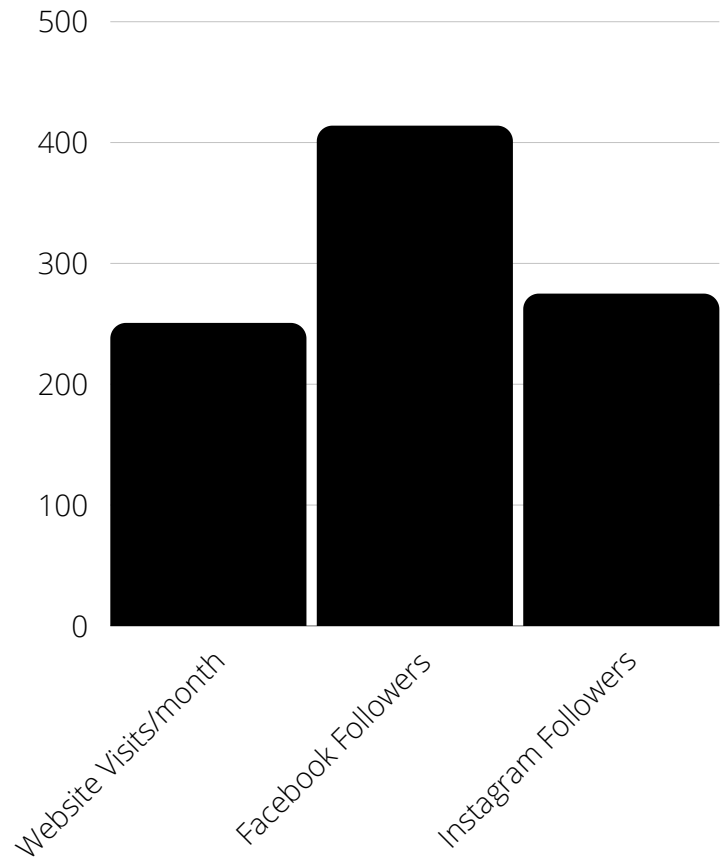
Pub Talk “Ridgetops to Rivers Restoration”

Low-Tech Process Based Restoration of Riverscapes Workshop

Lake County Fair Outreach Table

Summer Lake Wildfire Risk Reduction Project Tour

Field Trip to Muddy Creek & Cottonwood Creek for Lakeview HS Field Biology Classes



Lakeview HS Field Biology Class Assessing Stream Health by Finding Macroinvertebrates



EDUCATION & OUTREACH



Lakeview HS Students
Walking the Fish Passage
at Muddy Creek

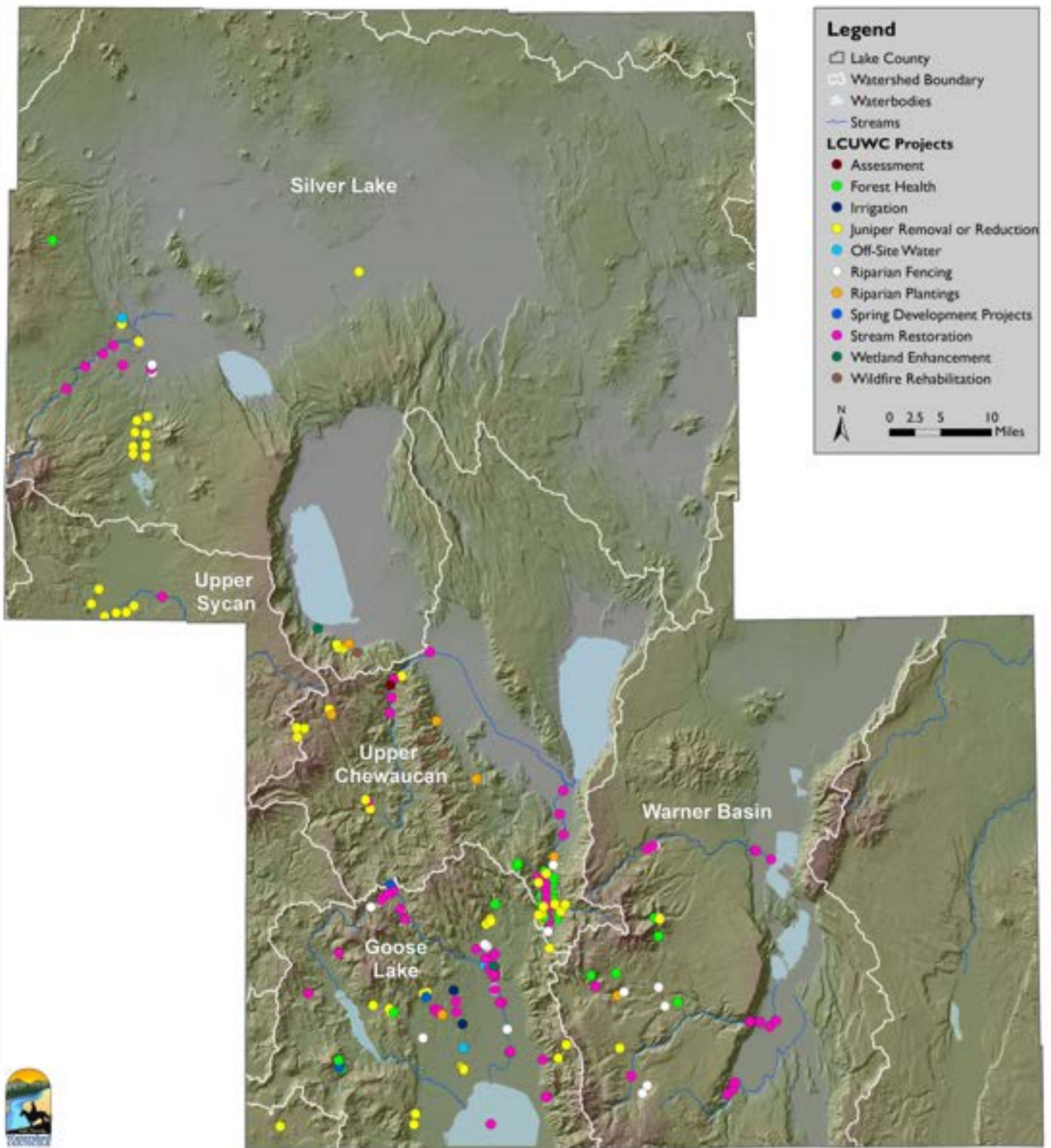


Beaver Dam Analogue
Construction at the Low-Tech
Process-Based Restoration of
Riverscapes Workshop



North Lake & Paisley
Outdoor School at
Summer Lake
Wildlife Area

Lake County Umbrella Watershed Council Projects



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)