Streamwork

A newsletter from:

Gilliam County Soil Water Conservation District, Gilliam-East John Day Watershed Council, Local Farm Services Association, Natural Resource Conservation Service.

Inside This Issue

North Fork Butte Implementation

North Fork Butte planning and design documents for a low–tech process–based restoration plan for tributary streams within the North Fork of Butte Creek (NF of Butte Creek) watershed were completed in 2020. The restoration plan is designed to invoke self-sustaining fluvial processes that increase aquatic ecosystem benefits within the NF of Butte Creek watershed, and also to provide downstream habitat benefits within portions of Butte Creek that are used by a threatened steelhead population.

The design document details a structural treatment plan for ca. 70 beaver dam analog (BDA) structures. However, the document was also drafted to guide process – based (Beechie et al. 2010) restoration planning and complementary restoration actions over a 5 – 10-year period during which beneficial geomorphic, vegetative, and hydrologic processes may be expected to become self – sustaining. Phase one of implementation was completed in Fall of 2020. Phase two of implementation was completed in October of 2023.

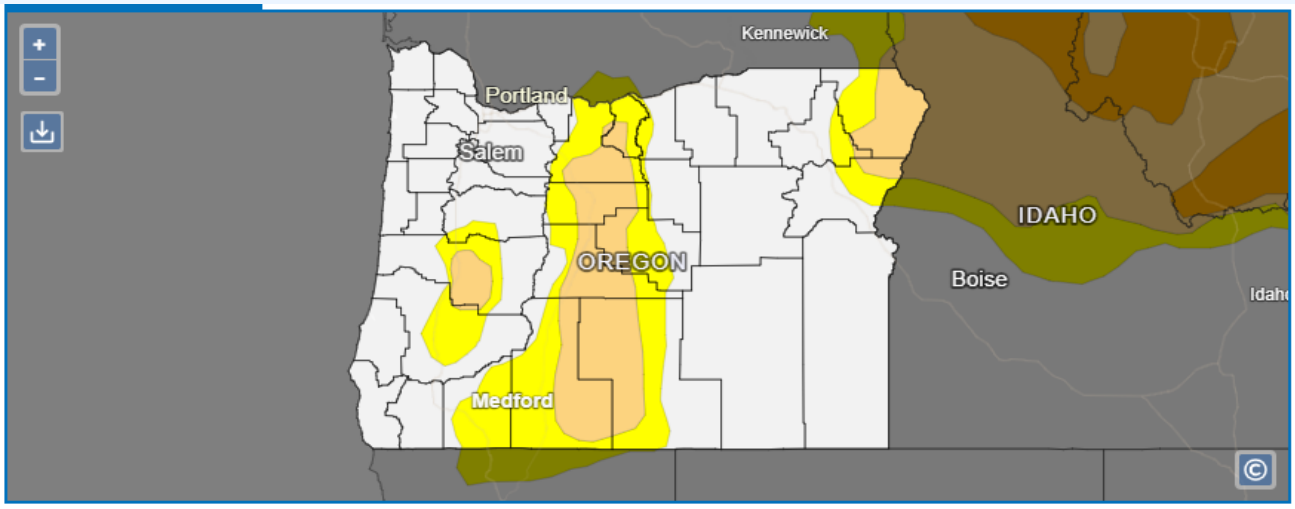
IMPLEMENTATION PHASE AND TIMLINE	IMPLEMENTATION DESCRIPTION
PHASE 1 *FALL 2020*	*60 – 80 BDA structures - Initial and most aggressive treatment phase. Extensive pond formation within inset floodplain channels should begin to attenuate and extend the duration of surface flow. Where floodplain access is possible, multi-threaded channel formation will occur via flow dispersal and headcut formation.*
PHASE 2 *2022 – 2023, FOLLOWING SEVERAL HIGH FLOW EVENTS*	*Between 20 – 30 new BDA structures and structure enhancements – Treatment should focus new BDAs within new secondary or high-flow channels, and extension or increased elevation of existing structures. Material (sediment and vegetation) additions at existing structures to encourage low – flow pond formation.*
PHASE 3 *2023 – 2026, FOLLOWING SEVERAL HIGH - FLOW AND AT LEAST 1 LARGE FLOOD EVENT*	*Between 20 – 30 new BDA structures and structure enhancements – New BDA structures in non-primary channels. Increased elevation of existing BDA structures that may have aggraded to encourage complete channel avulsion where possible. Material (sediment and vegetation) additions at existing structures to encourage low – flow pond formation.*

C.B.A.S.S
Columbia Basin Aerial Sensing Survey

The Gilliam County Soil and Water Conservation District successfully delivered the sixth year of high-quality aerial photos using a licensed unmanned aerial system operated by a UAV pilot, allowing NRCS personnel to conduct Conservation Compliance tasks remotely. The Gilliam County Soil and Water Conservation District delivered 300 high-quality photos of geo-referenced points, points provided by NRCS. The Gilliam County Soil and Water Conservation District provided labor, materials, equipment, and supplies necessary to complete this task. The NRCS provided georeferenced points and informed landowners of work and tasks being performed. The Gilliam County Soil and Water Conservation District is currently preparing for the seventh-year deliverables and an expanded contract to conduct compliance checks on Wetland Reserve Easements.

Current U.S. Drought Monitor Oregon

The U.S. Drought Monitor (USDM) is updated each Thursday to show the location and intensity of drought across the country. This map shows drought conditions across Oregon using a five-category system, from Abnormally Dry (D0) conditions to Exceptional Drought (D4). The USDM is a joint effort of the National Drought Mitigation Center, USDA, and NOAA.



The U.S. Drought Monitor depicts the location and intensity of drought across the country. The map uses 5 classifications: Abnormally Dry (D0), showing areas that may be going into or are coming out of drought, and four levels of drought (D1–D4).

This map is used by the U.S. Department of Agriculture to trigger some disaster declarations and loan eligibility. Individual states and water supply planning may use additional information to inform their declarations and actions. Learn more .

How has drought impacted this state in the past? View **examples of past drought impacts** or explore **historical Drought Monitor maps**.

Source(s): NDMC, NOAA, USDA

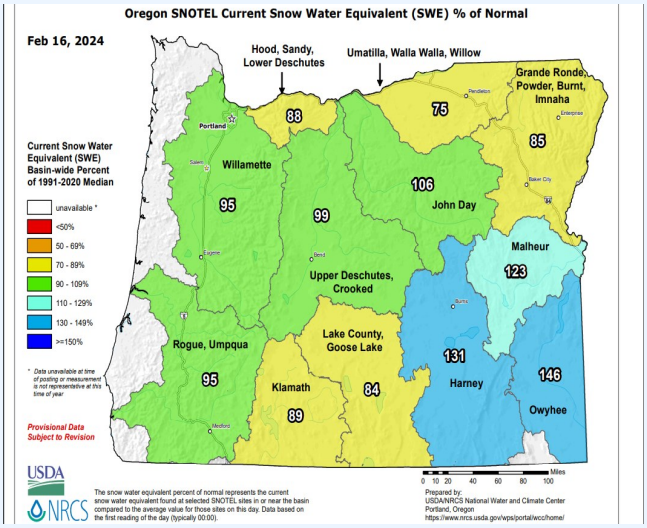
Legend

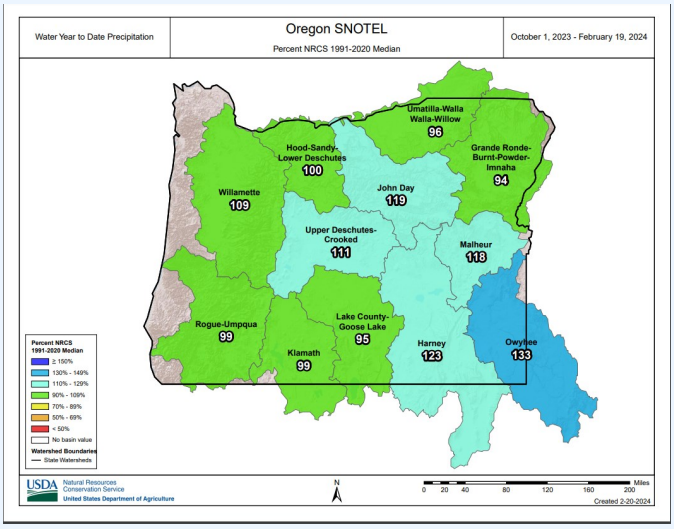
Drought & Dryness Categories	% of OR
D0 – Abnormally Dry	17.6%
D1 – Moderate Drought	14.7%
D2 – Severe Drought	0.0%
D3 – Extreme Drought	0.0%
D4 – Exceptional Drought	0.0%
Total Area in Drought (D1–D4)	14.7%

For more information on the current drought conditions, Visit https://www.drought.gov

Oregon Basin Outlook Report;
The Current Water Supply Conditions In The John Day Basin

(As of February, 2024)





Summary of Water Supply Conditions in the John Day Basin

Snowpack: As of February 2024, the basin snowpack was 106% median.

Precipitation: As of February 2024, precipitation was 119% of median.

For more water supply information, visit:
https://www.nrcs.usda.gov/resources/data-and-reports/snow-and-water-interactive-map

USGS **14048000** JOHN DAY RIVER AT MCDONALD FERRY, OR

Drainage area:	7580 mi^2
Discharge:	2740 cfs
Stage:	4.10 ft
Adj. stage:	396.37 ft
Date:	2024-02-20 12:45:00
Percentile:	68.70 %
Length of Record:	116 years
Class symbol:	
% normal (median):	139.80 %
% normal (mean):	93.53 %

USGS **14046500** JOHN DAY RIVER AT SERVICE CREEK, OR

Drainage area:	5090 mi^2
Discharge:	3460 cfs
Stage:	5.88 ft
Adj. stage:	1638.3 ft
Date:	2024-02-23 12:30:00
Flood stage:	11.5 ft
Percentile:	80.41 %
Length of Record:	93 years
Class symbol:	
% normal (median):	185.03 %
% normal (mean):	127.37 %

Streamflow Summary: McDonalds Ferry, OR
As of February 2024

February streamflow at McDonalds Ferry is at 139.80% of median.

Streamflow Summary: Service Creek, OR
As of February 2024

February streamflow at Service Creek is at 185.03% of median.

For more information on current stream flows visit:
https://waterwatch.usgs.gov/?m=real&r=or

Invasive Plant

Poison Hemlock

Conium maculatum

Prepared by: Roger Lathrop

PLANT FACTS

- POISONOUS TO LIVESTOCK & HUMANS
- GROWS 4-10 FEET TALL
- BIENNIAL & BELONGS TO THE CARROT FAMILY
- ROOTS CAN BE MISTAKEN FOR WILD PARSNIPS
- CAN CAUSE BIRTH DEFECTS IN LIVESTOCK

Plant Identification

Poison Hemlock has white flowers that grow in small erect clusters. It has a white tap root and the hollow stem is marked with purple spots.

For more information visit www.plants.usda.gov/home

TAKE ACTION

Poison Hemlock may be controlled by treating plants before they begin to bud with 2, 4-D plus dicamba (1kg + 0.5 kg ai/Ac). Repeat applications may be needed. Follow all precautions for handling herbicides.

Thirtymile Steelhead-Bass Interaction

The monitoring in Thirtymile Creek, a tributary to the John Day River, near Condon, Gilliam County, OR, aims to quantify the impact of nonnative small mouth bass invasion on ESA-listed Mid-C summer steelhead productivity under current environmental conditions, as well as quantify the strength of the interaction under altered thermal regimes and invasion scenarios, which are predicted to occur as a result of the proposed restoration activity. The results of this monitoring are both critical and time-sensitive to the development of ongoing successful restoration strategies aimed at improving steelhead productivity in both Thirtymile and other tributaries that currently, or are predicted to, support smallmouth bass. Project partners include Gilliam Soil and Water Conservation District, Oregon Department of Fish and Wildlife East Region Fish Research, and Oregon State University.

John Day River Bass Blitz

Hook and Line Sampling for Science!

Date: TBD

Where: Thirtymile boat launch via Armstrong Rd

Event Details: The event will be over the course of 2 days with sampling all day (8am – 7pm) and a half day (8am – 1pm). Lunch, water and snacks will be provided both days. There will be rods and tackle available however folks are welcome to bring and use their preferred gear.

Why are we sampling Bass? To better understand smallmouth bass movement between Thirtymile Creek and the John Day River we will capture smallmouth bass from the John Day River via hook and line sampling. Smallmouth bass in the John Day represent a seed population for those entering Thirtymile. Captured bass will be measured, weighed, PIT (passive integrated transponder) tagged and returned to the river. The smallmouth bass captured at this event lay a critical foundation for the next two years of this study. Hopefully we will see these smallmouth bass return next year and redetect them at various PIT tag antennas throughout the lower John Day Basin including antenna sites in Thirtymile Creek. This sampling event is part of a larger study that aims to better understand smallmouth bass interactions with wild summer steelhead in Thirtymile Creek.

We recognize that this study sits at the nexus of two well-loved fisheries. For many John Day River recreationists it is important that the John Day River supports a wild run of summer steelhead and continues to provide awesome smallmouth bass angling. We believe that both are possible, and this study will shed light on how we can best protect steelhead in tributaries while maintaining the smallmouth bass population in the Mainstem John Day River.

Contact Info:
Lizz Blackburn (ODFW)
Elizabeth.j.blackburn@odfw.oregon.gov (work)

OREGON
Fish & Wildlife

Thirtymile Steelhead-Bass Interaction continued

Progress Report –

The 2023 field season was a successful one! Overall, 661 smallmouth bass (SMB) individuals were captured and tagged between May and August. 279 of those SMB were tagged in Thirtymile Creek, and 382 SMB were tagged in the Mainstem John Day River near the confluence of Thirtymile Creek. SMB were first captured in Thirtymile Creek on May 4th; 3 SMB individuals were captured over the course of 2 days. Steelhead fry emerged between May 11th – 18th and we saw an increase in SMB presence, 43 SMB were captured over the course of 2 days, May 18th -19th. My last SMB specific sampling event was on August 2nd, SMB were in low densities but still present. On October 11th during bi-annual juvenile steelhead sampling 4 SMB were captured.

We collected 267 SMB diet samples and 153 steelhead diet samples. I will be processing these samples throughout the month of November. Thus far 73 visually identifiable steelhead have been recorded *(see above right photos)*.

In March we installed an additional PIT tag antenna ~30m from the Thirtymile Creek confluence. This antenna was, and still is, collecting PIT Tag detections. We deployed 4 temperature loggers in March as well, 1 located in the Mainstem John Day River, 2 located in the perennial section of Thirtymile Creek and 1 in the ephemeral section of Thirtymile Creek.

This winter I will be diving into all the data we've collected! Next season I'd like to explore temperature at a finer scale, and I am excited to see if any SMB tagged in 2023 return to Thirtymile Creek. Lizz Blackburn-ODFW

Combining Methods to Monitor John Day Adult Steelhead Migration and Overshoot

In 2021, Gilliam County SWCD partnered with ODFW and were awarded funding for Combing Methods of Monitoring Steelhead Overshoot.

Approximately 60% of adult steelhead returning to the John Day River "overshoot" the John Day River mouth and are detected 119 km upstream in the Columbia River at McNary Dam. After crossing McNary Dam, John Day adult steelhead must "fallback" in order to return and spawn in the John Day River. Adult overshoot past a hydroelectric dam can directly (via physical injury during fallback) and indirectly (via increased energy expenditure) reduce the survival and reproductive capacity of returning adults. The current proportion of adult steelhead overshooting the John Day River contributes to a 7-year mean Bonneville Dam to South Fork John Day conversion probability of 50%, and is a limiting factor for steelhead population recovery. This means that only half of the adult steelhead arriving at Bonneville Dam survive and return to their natal stream to spawn. Life-cycle models indicate substantial risk of quasi-extinction for a John Day steelhead population if this status quo conversion probability continues. The quasi-extinction risk diminishes to near zero if conversion rate increases to 70%. In order to increase the probability of John Day steelhead returning to their natal stream, we propose a third phase of a three phase monitoring for John Day adult steelhead overshoot. To do this, we leverage existing acoustic data and receivers (ODFW-Sturgeon and OWEB funded Phase One of this study) and new Passive Integrated Transponder antennas (funded by ODFW's R&E Board - Phase Two of this project). This combination of antennas positioned in the Columbia and John Day rivers will detect tagged adults and allow us to map migratory routes and relate adult steelhead migration to environmental parameters that restoration can influence such as stream discharge, velocity and temperature. We will compare fate of steelhead by migratory route to identify relationships between migration route and environmental parameters. Gilliam SWCD and ODFW will be the lead partners.

(1) Accomplish the pre-sampling coordination and permitting necessary to participate in trapping of adult steelhead in the Bonneville Dam adult fish facility, and deployment of acoustic receivers.
(2) Capture adult steelhead in the adult fish facility (AFF) at Bonneville Dam. Trapping will run from July 1 to September 15, 2022 during daylight hours (water temperature permitting).
(3) Install and operate a series of acoustic detection nodes and companion water temperature loggers in the Columbia and John Day rivers from approximately July 5, 2022 through April 30, 2023.
(4) Install and operate PIT Detection antennas near the John Day river mouth from July 2022 through winter-spring 2023. Acoustic receivers will be located near each of the four PIT tag antennas that we will carry through from Phase Two to Phase Three and beyond.

Above: Floating PIT antenna barge at the 2022 location, slightly upstream from Phillipi Campground. Small wind turbine attachments were added in addition to the solar panels for supplying sufficient power to the antennas. - ODFW

Below: Floating PIT antenna barge with antenna loops extending outward. This was our original design for proof of concept in 2021.

Combining Methods to Monitor John Day Adult Steelhead Migration and Overshoot Continued..

OWEB (Grant #221-6042-19590) Combining Methods to Monitor John Day Adult Steelhead Migration and Overshoot

December 2023 – Progress Report

In February and March, we presented acoustic data results from 2020 and 2022 on steelhead utilization of the Deschutes River at the Pacific Coast Steelhead Management Meeting in Newport, as well as at the Oregon American Fisheries Society meeting in Eugene. A project encompassing seminar talk was later given to the Eastern Oregon Ecology Forum in May, hosted by Eastern Oregon University.

With the assistance of project and partnering ODFW staff (Sturgeon Project), acoustic receivers were recovered throughout the spring and summer months. Receivers were successfully recovered from the Deschutes River, Little White Salmon River and the Columbia River gate, John Day River confluence, John Day River, and the McNary Dam forebay. In conjunction with the detections at the acoustic receiver locations, PIT tag detections at Columbia River and Snake River dams, and other instream detection sites throughout the Columbia River basin will be utilized to analyze the 2022 migratory data. Figure 1 describes the final disposition of tagged adult steelhead, derived from PIT tag detections.

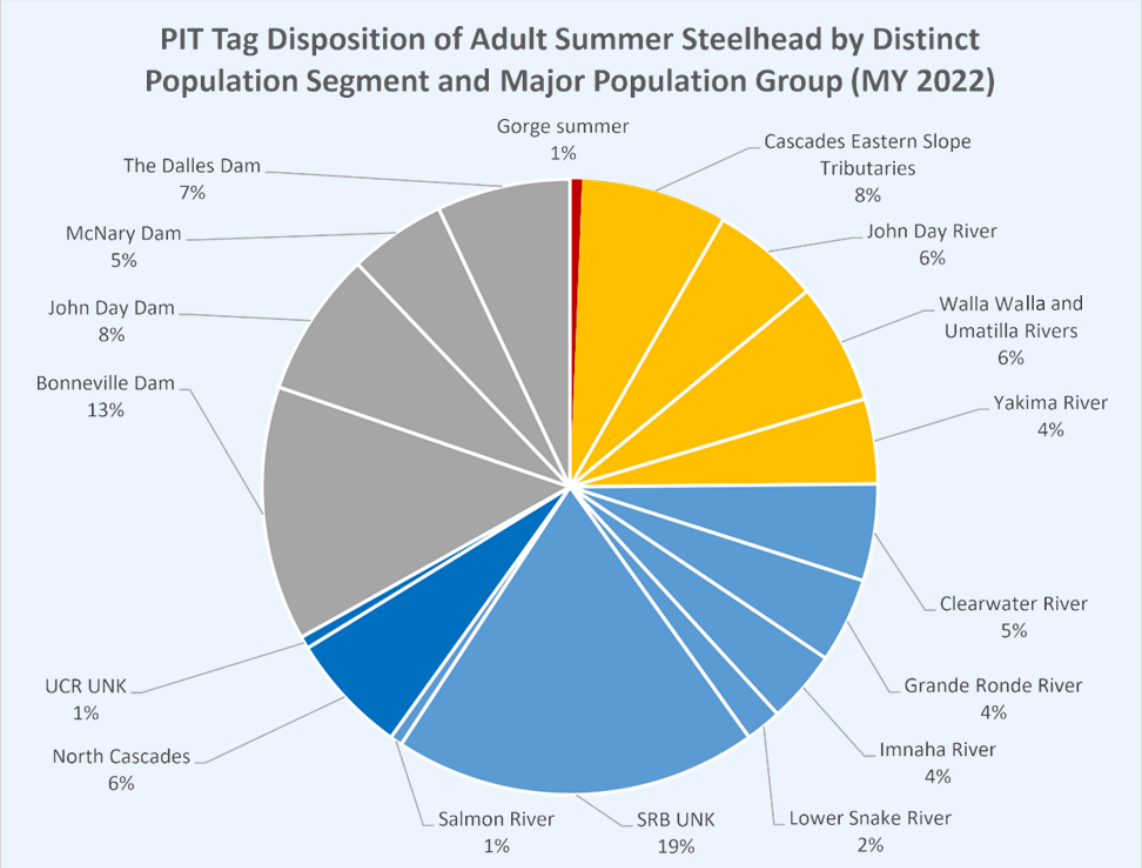


Figure 1. PIT tag disposition of adult summer steelhead for the 2022 migratory year. The pie chart segments correspond to each major population group (MPG), and color coded by their corresponding distinct population segment (DPS). DPS colors: 1. Red – Lower Columbia River DPS, 2. Yellow – Middle Columbia River DPS, 3. Light Blue – Snake River Basin DPS, 4. Dark Blue – Upper Columbia River DPS, and 5. Gray – Unknown DPS (last detection was at corresponding dam).

This fall ODFW project staff coordinated with Trout Unlimited and Wild Steelheaders United to raise additional funding to contract the initial processing and analysis of acoustic telemetry positioning data for the confluence of the John Day River, as well as the confluence of the Little White Salmon River (Drano Lake). From the 2020 acoustic data, Drano Lake was identified as one of the major summer holdover locations for migrating John Day spawners, and we wanted to better understand migration patterns in this corridor. There was also expressed interest from WDFW biologists. The positioning data will be further analyzed using more robust statistical techniques to map individual pathways of fish migrating through these separate locations, with the goal of providing managers useful information to better manage stocks of adult summer steelhead based on their spatiotemporal patterns at these two sites. During Fall 2023, ODFW Information and Education produced a broad general overview of this project and data collection methods for public dissemination: https://www.youtube.com/watch?v=UyKj03LXIks -ODFW

Gilliam County SWCD 2024 Annual Meeting & Dinner

Tuesday, March 12th, 2024
St John's Catholic Church Parish Hall
412 W. Walnut St.
Condon, OR 97823

Social Hour at 5:30pm
Prime Rib Dinner at 6:00pm
Guest Speaker Featuring Virtual Fencing Pros & Cons

RSVP by March 4th, 2024
Email Norie Wright @ norie.gilliamswcd@gmail.com
Or call 541-384-2672 x108
Or text 541-792-0941

Oregon Farm Service Agency (FSA)

USDA - Farm Service Agency

Condon / Wheeler FSA Office

- **ARC/PLC (Agricultural Risk Coverage and Price Loss Coverage Program):**

  - March 15, 2024: Deadline to make elections and enroll for 2024

- **CRP (Conservation Reserve Program):**

  - Now accepting CRP-Continuous sign-ups.

  - Now accepting CREP sign-ups.

  - Please remember to turn in all paperwork regarding CRP seeding or CREP activities in order to complete cost share.

- **ERP- 2022: (Emergency Relief Program- 2022):**

  - Track 1 and 2 are available at this time for losses incurred in the 2022 crop year.

- **LIP/ELAP:**

  - Livestock and/or feed losses must be reported within 30 days of loss event, including private grazing land burned by wildfire. This includes if you are transporting feed or livestock, it is 30 days from when you make the first trip after the start of the grazing period, after a drought designation.

  - Call the office for more information or to report your losses.

- **NAP (Noninsured Crop Disaster Assistance Program):**

  - Report losses within 15 days of event. Notify FSA of event within 72 hours for hand-harvested crops.

Please reach out to Kayla Mims 541-384-4251 ex 100 or Kaycee Rogers 541-384-4251 Ex 103 for information or questions regarding FSA and current programs.

USDA Natural Resources Conservation Service

Gilliam/Wheeler Local Work Group Meeting

Monday, March 4rd

Wheeler @10:00am
Via Zoom Meeting

Gilliam @ 2:00pm
In-Person at USDA Service Center Conference Room

CSP Classic Application Deadline is March 29th

Contact Jessica Jones Soil Conservationist, Joel Verkruyse Soil Conservationist, or DelRae Ferguson District Conservationist if you are interested in applying at (541)384-2281.

Gilliam Soil and Water Conservation District
Gilliam-East John Day Watershed Council
234 S. Main Street
P.O. Box 106
Condon, Oregon 97823

GILLIAM-EAST JOHN DAY WATERSHED COUNCIL

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Phone: 541.384.2672 ext. 111

GEJDWC STAFF

Katie Garthwaite Council Coordinator
Katie.gilliamwc@gmail.com

2024 Council representatives

Don Farrar, Chair, Hay Creek/Scott Canyon
Susie Anderson, Supervisor, Thirtymile Creek
Tom Campbell, Lonerock Creek
Ron Wilson, Rock Creek
J. W. Johnson, Ferry Canyon
Morris Weatherford, At Large
Herschel Lantis, At Large

Meetings held on the third Monday of each month.

The purpose of the Gilliam-East John Day Watershed Council is to address watershed management issues within the drainage and to provide a framework for coordination and cooperation in implementing watershed enhancement programs.

Providing grants and services to citizen groups working to restore healthy watersheds in Oregon

GILLIAM SOIL AND WATER CONSERVATION DISTRICT

P.O. Box 106 ~ Condon, OR 97823
Phone: 541.384.2672 ext.109

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2024 BOARD OF DIRECTORS

At Large ~ Jordan Maley, Chair
Zone 3 ~ John Anderson, Vice-Chair
Zone 2 ~ Rich Harper, Sec/Treas.
Zone 1 ~ Chet Wilkins, Director
At Large ~ Doug Potter, Director

Public Notice ORS 192—Meetings held the second Tuesday of the month.

To promote the wise use and conservation of natural resources within Gilliam County

Oregon Department of Agriculture