

Drought Resiliency for Jefferson County, Oregon Agriculture:

A Long-Range Plan to Thrive Despite Water Scarcity

1st Annual Update to the 2023 Plan

December 2024



**Produced by
Jefferson County
Agricultural Drought Resiliency Group**

OUR VISION: Jefferson County agriculture will thrive by adapting successfully to drought, and will support its people, animals, economy, environment, and culture.

OUR MISSION: to help agriculture create a sustainable, livable future for Jefferson County by adapting successfully to drought with support from Deschutes Basin stakeholders.

We promote innovative solutions to proactively improve watershed health and increase the effective management of water.

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The Jefferson County Agricultural Drought Resiliency Plan is available at [Drought Plan-Jefferson County](#).
A commitment was made to provide annual updates.

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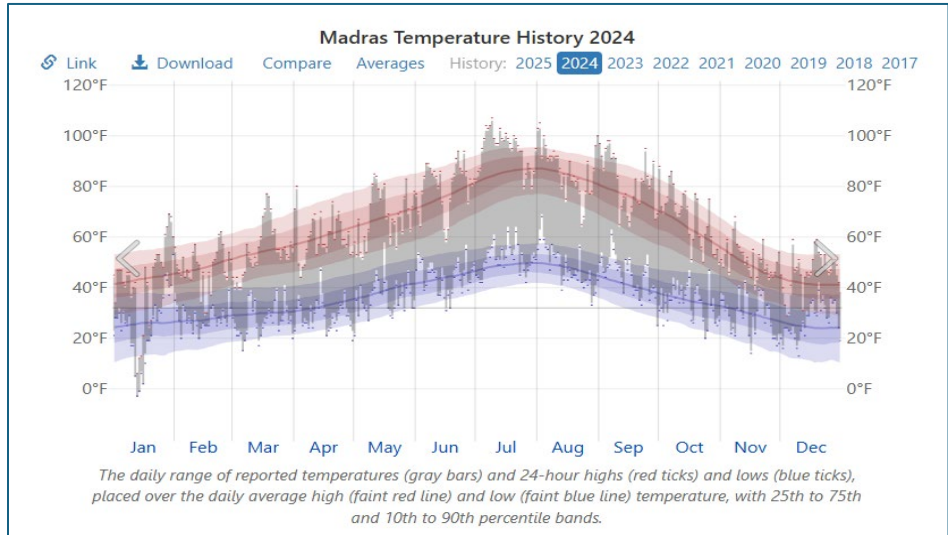
Abbreviations & Acronyms

| | |
|---------|---|
| CIS | Conservation Implementation Strategy |
| COAREC | Central Oregon Agricultural Research and Extension Center |
| COID | Central Oregon Irrigation District |
| CREP | Conservation Reserve Enhancement Program |
| DRC | Deschutes River Conservancy |
| ET | Evapotranspiration |
| JCSWCD | Jefferson County Soil and Water Conservation District |
| MDWC | Middle Deschutes Watershed Council |
| NRCS | Natural Resources Conservation Service |
| NUID | North Unit Irrigation District |
| ODA | Oregon Department of Agriculture |
| ODFW | Oregon Department of Fish and Wildlife |
| OSU | Oregon State University |
| OSU Ext | Oregon State University Extension Service |
| OWEB | Oregon Watershed Enhancement Board |
| OWRD | Oregon Water Resources Department |
| RC&D | Resource Conservation and Development Council |
| SWCD | Soil and Water Conservation District |
| USDA | United States Department of Agriculture |

I. 2024 CONDITIONS

A. DROUGHT

As of December 24, 2024, Jefferson County was still in moderate drought ([20241231OWRD.pdf](#)), even after the 60th wettest year over the past 130 years and 0.22” precipitation above normal ([JeffCo Conditions | Drought.gov](#)). In 2024, Jefferson was one of only four Oregon counties for which the Governor issued a drought declaration ([20241231OWRD.pdf](#)). Temperatures remained high compared to historical records ([Madras 2024-Weather Spark](#)).



The Natural Resources Conservation Service (NRCS) released modeled climate predictions through 2070. While rainfall may increase slightly, temperatures are predicted to increase 4-7°F through the years ([JEFFERSON CO.pdf](#)).

Natural Resources Conservation Service | Southwest Climate Hub
U.S. DEPARTMENT OF AGRICULTURE

CLIMATE QUICK REFERENCE GUIDE | Oregon

Historic Changes 1900-2020

- Average temperatures have risen 1.9°F since 1970 and temperatures in the 1990s and 2000s were higher than any other historical period.
- Due to the movement of tectonic plates on the ocean floors, the Oregon coast is rising. In some parts of the Oregon coast, the uplift is exceeding the rate of sea level rise.

Projected Changes 2042-2070

- Projected rising temperatures will raise the snow line. This will increase the likelihood that precipitation will fall as rain, reducing water storage in the snowpack.
- Summer precipitation is projected to decrease. The combination of drier summers, higher temperatures, and earlier melting of snow is projected to increase the frequency and severity of drought and wildfires.
- Sea level is projected to rise between .5 and 1.7 ft over the next 40 years.

Observed and Projected Temperature Change

Source: [statesummaries.ncics.org](#)

Jefferson County Summary

County Max Temperature (Fahrenheit)

| Season | Current | 2040-2070 | Change |
|--------|---------|-----------|--------|
| Spring | 57.1 | 61.7 | +4.55 |
| Summer | 78.5 | 85.7 | +7.19 |
| Fall | 60.3 | 65.9 | +5.62 |
| Winter | 41 | 45.7 | +4.67 |
| Annual | 59.2 | 64.7 | +5.51 |

County Max Precipitation (Inches)

| Season | Current | 2040-2070 | Change |
|--------|---------|-----------|--------|
| Spring | 5 | 5.2 | +0.15 |
| Summer | 2.2 | 2 | -0.23 |
| Fall | 5.4 | 5.4 | +0.05 |
| Winter | 8.1 | 8.8 | +0.69 |
| Annual | 20.7 | 21.4 | +0.66 |

Current data comes from PRISM Climate Group 30-year normal data for the 1971-2000 time period. Future is derived from the CMIP5 data using the mid-century time period and higher emissions scenario (RCP 8.5). Source: [swclimatehub.info/data/interactive-maps](#)

County Top Causes of Crop Loss

| Cause of Loss | Indemnity(\$) | Acres |
|------------------------|---------------|---------|
| Area Plan Crops | 1,769,337 | 343,847 |
| Failure of Irr. Supply | 1,639,216 | 4,789 |
| Decline in Price | 1,614,763 | 7,285 |
| Freeze | 703,100 | 813 |
| Hail | 490,913 | 596 |

Source: RMA crop loss data by county 1989-2020. [swclimatehub.info/rma/rma-data-viewer.html](#)
“Area plan crops only” refers to damaged crops covered by a specific type of insurance policy that provides coverage based on county yields instead of policyholders’ individual yields. Therefore, losses are not necessarily tied to specific weather-related cause of loss.

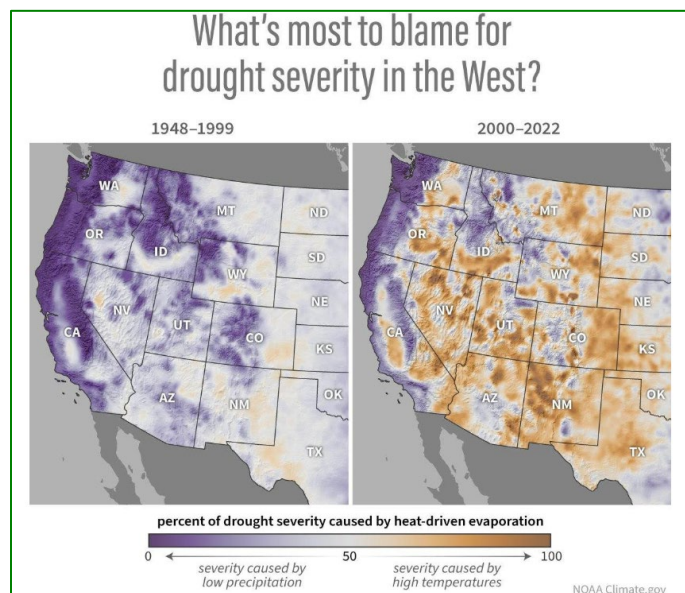
Research by the National Oceanic and Atmospheric Administration (NOAA) indicates that drought in the West is now due more to increasing temperatures than reduced rainfall (November 25, 2024 Facebook post at [NOAA Climate.Gov](https://www.facebook.com/NOAAClimateGov)):

“The simplest definition of a drought is below-average precipitation. But drought intensity depends a lot on air temperatures. The hotter it is, the more moisture the atmosphere inhales from the surface.

Drying heat was responsible for the lion’s share of the intensity of droughts that occurred in the 21st century... A shift toward heat-dominated droughts means that even in years when precipitation is normal, the threat of drought remains, and it will only get worse...

Recent NOAA-funded research found that across the western United States, the climate factors driving drought intensity underwent a role reversal at the start of the 21st century. The West has entered a new era in which drought intensity and size are driven more by drying heat than lack of precipitation.

In the map at left, the dark purple colors painting the West’s mountain ranges indicate that in the late 20th century, virtually all intense droughts at higher elevations were driven by lack of precipitation, with little to no contribution from high temperatures. In the inter-mountain basins, the colors fade to lighter purple, meaning that heat played some role, but not a leading one...the inter-mountain basins and valleys have flipped from a drought regime driven mostly by precipitation to one driven strongly by drying heat. The mountains are a much lighter purple, meaning that even there, the pattern of drought intensity being dictated largely by precipitation shortfalls is weakening”.



B. IMPLICATIONS FOR AGRICULTURE

Once more, in 2024, North Unit Irrigation District (NUID) reduced their water allotment to irrigators, this time by about half due to several years of inadequate snowfall in the Cascade Mountains. This resulted in one-third of acreage unirrigated. A very heavy snowfall in the Cascades in December 2024 will potentially improve the farming outlook for the 2025 irrigation season. The Upper Deschutes Basin, which is the source of NUID’s water supply, is primarily spring-fed, and snowpack does not directly affect water levels in the season it is received.

And, even if precipitation ‘catches up’, higher temperatures will mean increased crop evapotranspiration (ET) rates, which requires more water to make up the difference.

II. 2024 IMPLEMENTATION ACTIONS

The Drought Plan is available at [Drought Plan-Jefferson County](#). Implementation was significantly slowed due to multiple changes in JCSWCD staff; the JCSWCD was not able to implement or facilitate as many actions as they had hoped or committed to. However, much was still accomplished. And, the JCSWCD started a monthly newsletter to inform landowners about meetings and programs they might be interested in.

In addition, the Group Facilitator had idealistic, unrealistic expectations of being able to develop implementation plans for each of the Current Focus Tools. This did not account for the dynamics of working with diverse groups on challenging issues with no easy answers, with participants having other demands on their time. As one Group member said, “If it were easy, we wouldn’t need to be working on it.”

The Drought Group decided on quarterly meetings and met in February, May, and August 2024 with 27, 24, and 14 participants respectively. Participation was lower than in 2023 because meetings consisted more of updates than group discussion, and people got busy in the summer. The October meeting was cancelled due to lack of progress by JCSWCD staff as mentioned above, and JCSWCD staff sent out a written update instead. All meeting notes and updates are available at: [Drought Resiliency Group - Jefferson County SWCD](#).

Additional people joined the work groups, including newly hired staff at the Central Oregon Agriculture and Education Center (COAREC), Oregon Department of Fish and Wildlife (ODFW), and the Oregon Water Resources Department (OWRD).

The following section summarizes 2024 progress on the Current Focus Tools identified in the 2023 Drought Plan (pages 19-28).

A. WATER AVAILABILITY/ACCESS/DISTRIBUTION WORKGROUP



Primary participants: NUID, DRC, OWRD, landowners

The Workgroup met once in March 2024. At that meeting, it was decided that there was no need to continue meeting because North Unit Irrigation District (NUID) leadership was working with the Deschutes River Conservancy (DRC) and Upper Deschutes Basin irrigation districts, and we didn’t need a workgroup to support their efforts. Instead, the JCSWCD has written letters in support of projects to increase water availability/access/distribution in Jefferson County.

Current Focus Tools and Progress

1. Construct a new pumping facility and change NUID Crooked River Point of Diversion to Lake Billy Chinook:

An Appraisal Study has been completed, and work on the Feasibility Analysis is underway.

2. Pipe canal infrastructure in the Upper Deschutes Basin

- Central Oregon Irrigation District (COID) has received \$25,000,000 in Federal funding to help pipe their Pilot Butte Canal.
- Arnold, Lone Pine, Swalley, COID, and Ochoco Irrigation Districts are all actively working on conservation projects, many of which will benefit NUID.

3. Pipe canal infrastructure in NUID

NUID has awarded Segment 2 of our Lateral 43 Pipeline project to Taylor Northwest, and work is currently being completed. This project will install approximately 6 miles of HDPE pipe, ranging in size from 63" to 6". Work on this segment will be completed in late March 2025. Design and engineering work on segments 3 through 4 are underway. Anticipated completion in spring of 2028.

4. Change definition of Beneficial Use to allow for fallowing during drought

Oregon legislature accomplished this.

5. Water Bank for seasonal transfers

DRC and partners continue to work toward development of a basin-wide water bank. At present, DRC and its consultants are asking irrigation districts about their ability to participate in a water banking program in 2025. Any potential transactions will be processed this winter and effective in the 2025 irrigation season. Unfortunately, DRC and NUID did not receive NRCS funding for cover cropping linked to fallowed land enrolled in a water bank. However, partners continue to explore options to fund a cover cropping program and intend to move forward with all water bank plans otherwise. Several potential policy changes are being proposed for the 2025 legislative session that have the potential to impact water banking, and partners are engaging in that process to promote the use of water banking as a tool in the Deschutes Basin.

NUID is investigating a digital solution for a water banking pilot in Jefferson County, wherein an online water trading (buying/selling) platform would facilitate "water allotment transfers" amongst patrons who want to sell a portion of their unused allotment temporarily for a single growing season (unfortunately this would not count as beneficial use but would be a revenue source for struggling farmers). The DRC has partnered with Environmental Science Associates and the Environmental Defense Fund to work with NUID on this pilot. Conversations around integration are underway, and NUID hopes to roll out the platform (limited only to NUID patrons) in the 2026 irrigation season.

6. Cloudseeding

NUID has received \$75,000 to research cloud seeding potential in the Deschutes Basin. Additional work is being conducted to secure match (\$75,000) funding for the project.

B. CROPLANDS WORKGROUP



Primary participants: OSU Ext, COAREC, OWRD, Wy'East RC&D, NUID, NRCS, Central Oregon Seeds Inc, Bonneville Power Administration, JCSWCD, landowners

The Workgroup met four times in 2024. Its momentum has been accelerated by the recent hiring of two staff at COAREC (Director and Irrigation Specialist) and contacts with OWRD who are or were associated with the Open ET Project (see below).

In the spring, the Workgroup reviewed the Current Focus Tools identified in the 2023 Drought Plan and made some minor changes to better reflect needs. There is much overlap in the tools so they will be presented as a group, followed by progress.

1. Current Focus Tools

a. Increase crop water use efficiency

Improve irrigation efficiency through 1) on-farm infrastructure and 2) irrigation scheduling. The emphasis is on continued conversion to more efficient forms of irrigation systems and using the latest technology for irrigation scheduling.

b. Diversify cash crops

Crops are often viewed as 'cash crops' or 'cover crops'. However, this distinction is too limited, and 'cover crops' are often seen to have little to no economic value. The Workgroup instead is trying the terminology of 'rotational crops', which are planted for various benefits like weed or soil erosion control, benefits to subsequent cash crops, and may or may not be harvested.

c. Soil health

NRCS' four Soil Health Principles nationally are: Maximize Continuous Living Roots, Minimize Disturbance (mechanical and chemical), Maximize Soil Cover, and Maximize Biodiversity.

Some of these concepts can be challenging to implement in seed-growing areas where farmers need to keep fields 'clean' to market their seeds. However, more and more techniques are available for managing rotational crops in a seed-growing region

d. **Control annual weeds on unirrigated land**

Weed control is important on both irrigated and unirrigated fields. However, because of the high number of acres left unirrigated due to water shortages, the Workgroup is focusing on this issue.

2. **Progress**

- a. **COAREC staffing:** Oregon State University (OSU) has hired a new director (Steve Culman) and Irrigation Specialist (Floyid Nicholas). Both have extensive experience in research and enthusiasm for outreach to growers. They will be invaluable partners moving forward.
- b. **30 years of cropping data:** Gordon Jones (OSU Extension Agronomist) is writing up a short, attractive flyer that summarizes 30 years of data from NUID Crop Reports, showing that landowners have grown over 150 different crops. Some of these are highly specialized niche crops grown only once or twice on a few acres; others are mainstay cash crops like carrot seed, bluegrass seed, and forages. This information can help landowners identify what has been grown here and possibly by whom, if they are interested in diversifying their cropping.
- c. **On-farm Project Implementation**
 - 1) **NRCS North Unit Soil Health Conservation Implementation Strategy (CIS):** NRCS has great landowner interest in the Environmental Quality Incentives Program (EQIP), and this CIS has been very successful since 2019. In fiscal year 2024, they had more EQIP applications than available funding. NRCS is currently receiving their budgets for their CISs in FY2025. The JCSWCD has been assisting with monitoring elements of the CIS. Once a field is converted to sprinkler, there is more flexibility to incorporate soil health practices. Inflation Reduction Act funding may be available to incorporate into this CIS with ties to energy conservation benefits that will reduce greenhouse gasses.
 - 2) **On-farm Modernization (complementing the CIS):** The JCSWCD submitted proposals for 1) piping a mainline to support conversion from flood to sprinkler by a participant in the CIS, and 2) enlarging an irrigation pond to prevent irrigation water from running off into the Deschutes River. The JCSWCD has also been asked to work with NUID and NRCS to help landowners who will receive water from the piped NUID Lateral 43 that are not participating in the CIS to modernize their irrigation systems.
 - 3) **Project Prioritization Tool:** NRCS uses a project ranking tool for their CIS; they are constantly refining it. The JCSWCD needs a similar tool to use for project requests, regardless of the funding source. This tool will be developed in 2025.
 - 4) **Soil moisture monitoring pilot:** Jefferson County hired a contractor to study broadband across the County for the primary goals of increasing access to telehealth and precision agriculture applications. That contractor is currently working with multiple farmers to test software for remote sensors. He expects to submit a proposal for funding more precision agriculture in Jefferson County.
- d. **OpenET Website (OpenET – Filling the Biggest Gap in Water Data):** OpenET uses the best available science to provide easily accessible satellite-based ET data for improved water management across the western United States. Workgroup members are exploring how to use it to 1) calculate current crop water needs, 2) determine if irrigation water is being

applied to meet crop needs, and 3) determine which fields have been left unirrigated due to water shortage. We also plan more demonstrations to landowners of how to use OpenET to better manage their water use and are collaborating with the OpenET point person at OWRD.

- e. **Weed Program Coordinator:** Ryan Brunner will be developing priorities for a weed program.
- f. **Landowner Outreach:** Opportunities in the past year have been limited, focusing primarily on the Central Oregon Farm Fair every February. However, with more outreach resources joining the Workgroup and available in Jefferson County, we expect to proactively create opportunities for information exchange.

The JCSWCD hosted a June 11 Soil Health Field Day with presentations by Ray Archuleta, Alejandro Carillo, and local farmer Bryce Vibbert. We intend to create an ongoing conversation with landowners about soil health, via workshops of 2-3 hours and field days at convenient times for local farmers and ranchers. We are currently planning a workshop in for March 12, with a field tour later in the summer.

The DRC led a field tour of K&S Farms north of Madras in September.

The Weed Program will present two Weed Field Days in the NUID area this spring, which will also include information on irrigation water management.

The JCSWCD started a monthly newsletter to highlight opportunities for land managers to learn and exchange information.

The Middle Deschutes Pesticide Stewardship Partnership (PSP) created a flyer that highlighted Pesticides of Concern in the drainages from NUID to the Deschutes River and distributed 100 of them to local farm chemical stores and other technical service providers.

The Jefferson County Soil and Water Conservation District (SWCD) has been assessing waterways draining to the Deschutes River since 2014 for over 130 pesticides. Pesticide concentrations are compared with levels set to protect aquatic life. "Pesticides of Concern" are detected most often and/or at concerning concentrations. Monitoring shows pesticides are entering the Deschutes River, but we don't know how they are entering the waterways.

| Pesticides of Concern in Jefferson County, based on presence in waterways | | | | |
|---|---|-------------------|--|--|
| Pesticide of Concern | Common Trade Names | Type ¹ | Common Local Uses | Where of Most Concern? |
| Dimethoate | Dimate | I | Grass seed, alfalfa, wheat | Campbell Creek |
| Diuron ² | Direx, Karmex | H | Bluegrass seed, alfalfa; fencerow, stackyard, right of ways (ROWs), etc. | Campbell Creek, Culver Drain, Mud Springs, Rattlesnake Drain |
| Imidacloprid | Admire, Gaucho, Merit, Premier, Provado | I | Vegetables | Culver Drain |
| Linuron | Lorox | H | Carrot seed | Campbell Creek, Culver Drain, Rattlesnake Drain |
| Oxyfluorfen | Galigan, Goal | H | Carrot seed, bluegrass seed | Campbell Creek |
| Prometryn | Caparol | H | Carrot seed | Campbell Creek |
| Sulfometuron-methyl | Oust | H | ROWs, staging areas | Culver Drain |

¹ I = Insecticide, H = Herbicide
² Being phased out

C. RANGLANDS WORKGROUP



Primary participants: MDWC, OSU Ext, NRCS, ODFW, County Commission, Envu, JCSWCD, landowners

The Workgroup met twice in 2024. During these meetings, they reviewed the Current Focus Tools and modified them to more adequately address the goal of improved upland health.

As with Croplands, there is much overlap in the tools so they will be presented as a group, followed by progress.

1. Current Focus Tools

a. Juniper control, followed by reseeding of perennials, control of annual weeds, periodic burning, and grazing management (as needed at each location)

Our focus is to look at each property when juniper control is requested and evaluate if additional actions need to be taken to support rangeland health.

b. Targeted grazing to improve forage and ranchland health.

This tool has not had much emphasis yet. However, that will be changing as more ranchers explore cross-fencing, Virtual Fencing, supplying off-stream water and mineral/protein to draw livestock into uplands, and other tools.

c. Vegetated streamsid es

There is no evaluation yet of streamside conditions, although that was requested by the Workgroup this spring. JCSWCD and MDWC staff are exploring how to use remote sensing data to do this.

d. Reconnecting streams to floodplains

Much work has been done in Trout Creek to mitigate the loss of steelhead habitat resulting from the construction of dams on the Deschutes River decades ago. This is still a priority.

e. Control of invasive annual weeds

Grasses such as cheat grass, medusahead, and ventenata are high priorities for landowners and the County. Rejuvra, the recently introduced herbicide by ENVU for

controlling invasive grasses, is receiving much attention, with requests for cost-share for herbicide purchase.

2. Progress

- a. **Neighbor meeting in Ashwood** in November was well received. The focus was on weed control, but information was also presented on rangeland health. About 20 landowners participated and provided good ideas on what kinds of information and assistance they would like. They requested annual informational meetings, along with site visits during which they could learn to identify and control weeds. They also requested information on practices such as virtual fencing and off-stream water. They expressed interest in cost-share programs for the herbicide Rejuvra and strategic annual weed control.
- b. **Funding for weed control 1-on-1 technical assistance.** A current EPA Toxics grant provided funding for 100 1-on-1 weed control interactions between the JCSWCD Weed Program Coordinator and landowners/chemical applicators.
- c. **ODA Weed Grant proposal** was submitted in December. It focuses on Eastern Jefferson County rangelands and includes two neighborhood meetings in Ashwood and Grizzly, that would focus on spray equipment calibration and a variety of rangeland health topics, such as managing for wildlife habitat and virtual fencing. The grant also requests funding to subsidize herbicide for up to 20 landowners to spray 2000 acres.
- d. **CREP Planner hired by JCSWCD.** Amber Herman will be working with NRCS on CREP (Conservation Reserve Enhancement Program) and farm planning and will be a huge asset in helping us with our goals for streamside vegetation and rangeland health.
- e. **Virtual Fencing**
 - i. Landowners have expressed curiosity about virtual fencing.
 - ii. There will be a statewide, hybrid conference in Ontario on January 29.
 - iii. Big Muddy Ranch is implementing virtual fencing in March 2025. They are believed to be the first Jefferson County ranchers using virtual fencing and are willing to share their experiences with other ranchers.
- f. **Tour of Hay Creek Ranch.** The Ranch consists of 80 contiguous square miles in the Trout Creek drainage. The owner reached out to JCSWCD for assistance, and the JCSWCD and NRCS will follow up as appropriate. Certain innovative practices used on the ranch may help other landowners, e.g. use of satellite and Ranch-bot to determine levels in water tanks, local Wifi network to manage irrigation, and use of large liquid protein tubs to supplement cattle feed.
- g. **On-the-ground projects.**
 - i. Riparian plantings, two springs developed to provide off-stream livestock water, and spraying Rejuvra on 128 acres in Campbell Creek.
 - ii. Funding to restore the largest meadow complex in the Trout Creek watershed
 - iii. Riparian plantings along 7.8 miles of Trout Creek tributaries



- iv. Juniper removal on over 2100 acres, usually followed by reseeding and livestock management
- v. Planted trees along Willow Creek

- h. **Meeting with Wasco SWCD in Antelope.** SWCD staff from both Jefferson and Wasco met in Antelope to discuss how they can work together near the county boundary. There was a lot of interest in working together on CREP and weeds; Wasco County NRCS has a juniper cutting CIS in the Antelope Creek watershed. Wasco landowners would likely also like to attend outreach events in Ashwood. Wasco SWCD would like JSWCD to include Antelope Creek Watershed in their project prioritization discussions.

- i. **Mapping juniper projects.** The Workgroup asked for a map of juniper projects to better visualize where work is getting done. Ellen is still waiting on shapefiles from US Forest Service and Bureau of Land Management. NRCS staff cautioned that the map should not be made public without lots of explanation for its purpose. The map is intended for internal use by the Ranchlands Workgroup to help figure out where work has been done and is planned. It does not include all the conservation projects being done.

- j. **Project prioritization.** The Workgroup agreed that we need to prioritize work at both the landscape and project levels. JCSWCD and MDWC staff will work on it this winter/spring.
 - i. **Landscape scale:** probably watershed-based. Trout Creek work has been prioritized based on steelhead; its prioritization process is currently being updated. Landscape-level will be focused on uplands and will incorporate some combination of mapping information from various sources, e.g. ODFW, SageCon, etc. Because the Antelope watershed in Wasco County is in the Middle Deschutes Small Grant region, Wasco SWCD asked if the JCSWCD/MDWC would include it in our evaluation.
 - ii. **Project scale:** This will help us with projects regardless of funding source. We will use the NRCS CIS criteria (below) as a starting point and modify as needed.



Mule deer buck in front of large juniper control project in Trout Creek watershed.

NRCS Trout Creek CIS Scoring Criteria

Conifer Encroachment Prioritization

- The proposed treatment area primarily contains Phase I conifer encroachment. 40 points
- The proposed treatment area primarily contains Phase II conifer encroachment. 10 points
- The proposed treatment area primarily contains Phase III conifer encroachment. 5 points

Hydrology Prioritization: Location of proposed site in relation to surface waters

- directly adjacent to a perennial or seasonal stream and a spring or seep. 40 points
- directly adjacent to perennial streams. 20 points
- adjacent to seasonal streams. 15 points
- not directly adjacent to a seasonal or perennial stream but has a spring or seep. 10 points
- not directly adjacent to a seasonal/perennial stream, spring, or seep. 5 points

Biological Prioritization - Resilience to disturbance and Resistance to Exotic Annual Grass

- majority of the treatment area's Resilience and Resistance score is 'High' 40 points
- majority of the treatment area's Resilience and Resistance score is 'Moderate' 15 points
- majority of the treatment area's Resilience and Resistance score is 'Low' 10 points

Biological Prioritization - The presence of annual grasses and weeds on the site

- Interspaces primarily bare ground or litter (>90% interspace bare ground or litter) and multiple bunchgrass age classes present on site. 40 points
- Exotic annual grasses or noxious weeds present at intermediate levels in interspaces (<50% interspaces occupied by exotic annual grasses or noxious weeds) and multiple bunchgrass age classes present on site. 15 points
- Interspaces primarily occupied by exotic annual grasses (>50% interspaces occupied by exotic annual grasses) and one or less bunchgrass age class present on site. 5 points

Scale Prioritization – Cumulative effect of conservation projects

- adjacent to another proposed or existing Juniper treatment area. 40 points
- less than 1 mile from another proposed or existing Juniper treatment area. 10 points
- greater than 1 mile from another proposed or existing Juniper treatment area. 5 points

D. GREEN ENERGY WORKGROUP (formerly ‘Agrivoltaics’)



Primary participants: OSU, ODFW, Wy’East RC&D, Bonneville Power Administration

This Workgroup was created due to its need for highly specialized knowledge, and it consists of experts in agrivoltaics on both croplands and rangelands. However, it became clear that Jefferson County will receive more requests for field-scale solar arrays, especially in rangelands, so the function of the Workgroup was expanded. These solar arrays can benefit landowners by either receiving rental payments to host the field or receiving payments to mitigate the effects of a solar array on someone else’s property.

Current Focus Tools and Progress

1. On-farm net meter solar agrivoltaics

The Workgroup created a flyer that encouraged landowners to consider using solar panels to power irrigation pumps. However, there was little response to that.

2. Field-scale solar arrays

While a few have been built, there are challenges with expanding into the rangelands, mostly due to lack of transmission lines. The County Commission had expressed interest in having the JCSWCD serve as a siting/mitigation advisory committee to the County Planning Commission.

E. PUBLIC OUTREACH WORKGROUP

Primary participants: JCSWCD, DRC, Madras Pioneer, NUID, OSU Ext, landowners

Key Message: “Jefferson County agriculture is diverse, valuable, at risk, and worth supporting”

The Workgroup has been updating and implementing the Outreach Plan.



1. **Logo:** We contracted with a local company to create a logo to reflect all of Jefferson County agriculture and are using it on outreach materials.
2. **Video:** The logo and a map were added to our videos and posted on our social media sites. The 6-minute video was presented at the Central Oregon Farm Fair in February. It is also posted on the NUID and DRC websites.
3. **Social Media:** The JCSWCD has a Facebook page and YouTube page: [JCSWCD Facebook](#) and [JCSWCD YouTube](#). They aren't updated as often as desired due to a lack of expertise among JCSWCD staff.
4. **Presentations:** The Drought Plan was presented at Farm Fair and will be again this coming February.

A panel consisting of NUID, DRC, and JCSWCD staff and landowners will be presenting February 11, 2025, for 2 hours on the water situation in Jefferson County as part of the Central Oregon Community College (COCC) Tuesdays at 2 subscription lecture series in Bend.

5. **Articles:** The Bend Bulletin printed a guest column written by JCSWCD staff on April 2, 2024. This column caught the attention of COCC staff and resulted in the invitation to the lecture series.

The Madras Pioneer has also written articles about the Drought Plan ([Madras Pioneer-Drought Group](#)) and the June 11 Soil Health Field Day ([Madras Pioneer-Ray Archuleta](#)). The Madras Pioneer is a valued partner on this Workgroup.

6. **Tours:** DRC offered a tour of a K&S Farms in September. They will work with the JCSWCD to host another tour in 2025.
7. **Flyers:** Flyers were provided at OPB's Think Out Loud live recording at the Riverhouse in Bend, which focused on water quantity issues in the Upper Deschutes Basin.

III. Priorities for 2025

A. WATER AVAILABILITY/ACCESS/DISTRIBUTION

- Continue with efforts to pump from Lake Billy Chinook.
- NUID and DRC work together to create a water bank for transfers within NUID. This will serve as a pilot for a larger water bank that would allow transfers among irrigation districts.
- NUID finishes segment 2, Lateral 43 and completes design and engineering for remainder of the project, while Upper Basin irrigation districts continue to pipe their infrastructure.
- COID completes Environmental Impact Statement on Pilot Butte Canal.

B. CROPLANDS

- JCSWCD and partners work with irrigators served by Lateral 43 to implement on-farm practices that are not part of the CIS.
- Develop and implement an outreach plan for landowners to help convert to more efficient irrigation and adopt soil health practices.
- Support the NRCS CIS through technical assistance and monitoring.
- Continue to assist landowners without CIS funding to convert to more efficient irrigation.
- Support Jefferson County broadband efforts to help landowners use remote sensing technology.
- Develop a prioritization tool for selecting projects regardless of funding source.

C. RANCHLAND

- Develop a prioritization tool at both the landscape and project scales for selecting projects to assist with. This tool will focus on uplands, unlike Trout Creek, which is focused on steelhead.
- Develop a tool to characterize riparian conditions to help with project prioritization.
- Continue with landowner informational meetings; include southern Wasco County landowners.
- Submit and implement a grant to ODA Weed Program for weed control and outreach. Submit grants to the US Forest Service and Bureau of Land Management for weed control.

D. GREEN ENERGY

- Promote information for landowners from the American Farmland Trust.

E. PUBLIC OUTREACH

- Create shorter videos related to Jefferson County agriculture.
- Work with partners to add crop signs along Highway 97 to inform the public.
- Create an Instagram account and keep posting to the Facebook and YouTube pages.
- Continue to partner with DRC on tours and webinars.